ECBC

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ECBC: EUROPEAN COVERED BOND FACT BOOK 2020

EMF | ECBC
EUROPEAN MORTGAGE FEDERATION
EUROPEAN COVERED BOND COUNCIL

This 15th edition of the ECBC European Covered Bond Fact Book builds on the success of previous editions. Chapter I presents an analysis of eleven key themes of the year, offering an overview of the Industry's views on these, such as the latest state of play of the covered bonds' implementation, the Covid-19 pandemic and the impact covered bond market.

Chapter II provides a detailed explanation of covered bond fundamentals, as well as the EU Legislative Package for covered bonds, the implementation of Basel III, the Capital Markets Union (CMU), the Liquidity Coverage Ratio, Solvency II, bail-in mechanisms (MREL AND TLAC) and covered bond protection. This chapter also includes articles outlining the repo treatment of covered bonds by central banks, investigates the relationship between covered bonds and other asset classes such as senior unsecured and government bonds, and describes the USD, GBP and domestic currency denominated covered bond markets.

Chapter III presents an overview of the legislation and markets in 42 countries, including for the first time a pan Baltic overview. Chapter IV sets out rating agencies' covered bond methodologies and, finally, Chapter V provides a description of trends in the covered bond market as well as a complete set of covered bond statistics.

We welcome the broad range of views expressed in this latest edition of the Fact Book and would like to extend our appreciation to the Chairmen of the ECBC "Fact Book" and "Statistics & Data" Working Groups, Mr Sascha Kullig and Mr Joost Beaumont respectively, as well as to all Fact Book contributors, whose efforts have, once again, produced an outstanding edition of the ECBC Fact Book.

Contact Details

Luca Bertalot
Secretary General
lbertalot@hypo.org

Jennifer Johnson
Deputy Secretary General
jjohnson@hypo.org

Daniele Westig
Economic Adviser
dwestig@hypo.org

Chrysanthi Vazitari
Events & Communications Adviser
cvazitari@hypo.org

EUROPEAN MORTGAGE FEDERATION – EUROPEAN COVERED BOND COUNCIL (EMF-ECBC)
Rue de la Science 14 A, 2nd Floor
B-1040 Brussels, Belgium
Tel: +32 2 285 40 30

LIST OF EDITORS

Sascha Kullig
Chairman of the ECBC Fact Book Working Group
Head of Capital Markets
ASSOCIATION OF GERMAN PFANDBRIEF BANKS – vdp
kullig@pfandbrief.de

Luca Bertalot
Secretary General
EUROPEAN COVERED BOND COUNCIL
lbertalot@hypo.org

Jennifer Johnson
Deputy Secretary General
EUROPEAN COVERED BOND COUNCIL
jjohnson@hypo.org

Daniele Westig
Economic Adviser
EUROPEAN COVERED BOND COUNCIL
dwestig@hypo.org

Chrysanthi Vazitari
Events & Communication Adviser
EUROPEAN COVERED BOND COUNCIL
cvazitari@hypo.org

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LIST OF CONTRIBUTORS

We are most grateful for the time, effort and expertise which the following contributors have lent to the production of this book.

FOREWORD

Boudewijn Dierick
ECBC Chairman
EUROPEAN COVERED BOND COUNCIL
boudewijn.dierick@uk.bnpparibas.com

Luca Bertalot
Secretary General
EUROPEAN COVERED BOND COUNCIL
lbertalot@hypo.org

CHAPTER 1
KEY THEMES OF THE YEAR

Joost Beaumont
Chairman of the ECBC Statistics & Data Working Group
Senior Fixed Income Strategist
ABN AMRO BANK N.V.
joost.beaumont@nl.abnamro.com

Elena Bortolotti
Chairwoman of the ECBC Rating Agency Approaches Working Group & Global Head of Covered Bonds and Head of Structured Solutions EME, Barclays
elena.bortolotti@barclays.com

Franz Rudolf
Managing Director
Head of Financials Credit Research UNICREDIT
franz.rudolf@unicredit.de

Steffen Dahmer
Chairman of the ECBC Market Related Issues Working Group
Executive Director – Global Product Manager Covered Bonds, Syndicate Covered Bonds
JP MORGAN
steffen.dahmer@jpmorgan.com

Matthias Melms,
formerly Nord/LB

Maureen Schuller
Head of Financials Research
ING BANK N.V.
maureen.schuller@ing.nl

Ralf Berninger
Head of Investor Relations
SFIL
ralf.berninger@sfil.fr

Jonny Sylven
Association of Swedish Covered Bond issuers (ASCB)
jonny.sylven@swedishbankers.se

Lars Ravn Knudsen
Head of department
Finance Denmark
lrk@fida.dk

Michael Weigerding
Senior Analyst, Covered Bond Research
Commerzbank AG
michael.weigerding@commerzbank.com

Luca Bertalot
EEMI Coordinator & ECBC Secretary General
EMF-ECBC
lbertalot@hypo.org

Jennifer Johnson
Deputy Secretary General
EMF-ECBC
jjohnson@hypo.org

Sofia Garrido
Policy Adviser
EMF-ECBC
sgarrido@hypo.org

Richard Kemmish
Founder
Richard Kemmish Consulting Limited
richardkemmish@outlook.com

Jacek Kubas
Associate Director
EBRD
kubasj@ebrd.com

Kate Galvin
Analyst
EBRD
galvink@ebrd.com

Laura Matuizaite
Associate
EBRD
MatuizaL@ebrd.com

Rodger Rinke
Executive Director
Landesbank Baden-Württemberg (LBBW)
rodger.rinke@lbbw.de

Markus Herrmann
Managing Director
Senior Investment Analyst
Landesbank Baden-Württemberg (LBBW)
Markus.Herrmann@lbbw.de

Karsten Rühlmann
Senior Investment Analyst
Landesbank Baden-Württemberg (LBBW)
karsten.ruehlmann@lbbw.de

Colin YS Chen
Chairman of the ECBC Global Issues Working Group
Managing Director and co-Head, Financial Institutions
and Structured Products, Global Fixed Income
DBS Bank Ltd
colinchen@dbs.com

Cristina Costa
Director – Senior Covered Bond Analyst
SOCIÉTÉ GÉNÉRALE
cristina.costa@sgcib.com

Sabrina Miehs
Senior Covered Bond Analyst
Helaba
Sabrina.Miehs@helaba.de

CHAPTER 2
GENERIC SECTION

Cristina Costa
Director – Senior Covered Bond Analyst
SOCIÉTÉ GÉNÉRALE
cristina.costa@sgcib.com

Otmar Stöcker
Managing Director
ASSOCIATION OF GERMAN PFANDBRIEF BANKS – vdp
stoecker@pfandbrief.de

Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

Florian Eichert
Head of Covered Bond & SSA Research –
Credit Research
CRÉDIT AGRICOLE CIB
florian.eichert@ca-cib.com

Alexandra Schadow
Head of Financials – Covered Bond Research
Landesbank Baden-Württemberg (LBBW)
alexandra.schadow@lbbw.de

Matthias Melms,
formerly Nord/LB

CHAPTER 3
THE ISSUER’S PERSPECTIVE

ARMENIA
Eleonora Mkrtchyan
Legal Counsel
Central Bank of Armenia
eleonora.mkrtchyan@cba.am

Edmond Vardumyan
CEO
National Mortgage Company RCO
e.vardumyan@nmc.am

AUSTRALIA
Chris Dalton
Chief Executive Officer
THE AUSTRALIAN SECURITISATION FORUM – ASF
cdalton@securitisation.com.au

Robert Gallimore
Policy Executive
THE AUSTRALIAN SECURITISATION FORUM – ASF
rgallimore@securitisation.com.au

AUSTRIA
Friedrich Jergitsch
Partner
FRESHFIELDS BRUCKHAUS DERINGER
friedrich.jergitsch@freshfields.com

Alexa Molnar-Mezei
Structurer, Adviser
ERSTE GROUP / AUSTRIAN PFANDBRIEF AND
COVERED BOND FORUM
alexa.molnar-mezei@erstegroup.com

BELGIUM
Dries Janssens
Principal Advisor
BELFIUS BANK
dries.dj.janssens@belfius.be

BRAZIL
ABECIP – Brazilian Association of Real Estate Loans

BULGARIA
Yolanda Hristova
Manager Capital Markets
UNICREDIT BULBANK
yolanda.hristova@unicreditgroup.bg

Franz Rudolf
Managing Director
Head of Financials Credit Research
UNICREDIT
franz.rudolf@unicredit.de

CANADA
Lily Shum
Covered Bond Advisor
CANADA MORTGAGE AND HOUSING CORPORATION
lshum@cmhc-schl.gc.ca

CHILE
Danilo Castañeda
Head of ALM– Financial Management Division
BANCO SANTANDER CHILE
dcastaneda@santander.cl

Camila Herrera
Head of Funding – Financial Management Division
BANCO SANTANDER CHILE
camila.herrera@santander.cl

Benjamín Poblete
Associate – Financial Management Division
BANCO SANTANDER CHILE
benjamin.poblete@santander.cl

CYPRUS
Christina Kypri-Georgiadou
Head Group Funding Department
Group Treasury
BANK OF CYPRUS
christina.kyprigeorgiadou@bankofcyprus.com

CZECH REPUBLIC
Petr Vybíral
Counsel
Allen & Overy (Czech Republic) LLP
Petr.Vybiral@AllenOvery.com

DENMARK
Svend Bondorf
Chief Analyst
NYKREDIT GROUP TREASURY
sbo@nykredit.dk

Anton Holmgård Nielsen
Attorney-at-law
NYKREDIT GROUP LEGAL AFFAIRS
ahn@nykredit.dk

Mette Saaby Pedersen
Head of Department
INANCE DENMARK
msp@fida.dk

ESTONIA
Reimo Hammerberg
Partner
Advokaadibüroo SORAINEN AS
reimo.hammerberg@sorainen.com

Jane Eespõld
Senior Associate
Advokaadibüroo SORAINEN AS
jane.eespold@sorainen.com

Oliver Ämarik
Associate
Advokaadibüroo SORAINEN AS
oliver.amarik@sorainen.com

FINLAND
Timo Ruotsalainen
Head of Treasury, AKTIA BANK PLC
Managing Director, AKTIA REMB PLC
Timo.Ruotsalainen@aktia.fi

Bernd Volk
Director, Head of European Covered Bond & Agency Research
DEUTSCHE BANK
bernd.volk@db.com

FRANCE
Cristina Costa
Director – Senior Covered Bond Analyst
SOCIÉTÉ GÉNÉRALE
cristina.costa@sgcib.com

Alexis Latour
Legal Head of Funding – Securitisation
BNP PARIBAS
alexis.latour@bnpparibas.com

Jennifer Levy
Senior Covered Bond Analyst
NATIXIS
jennifer.levy@natixis.com

Marc Nocart
Chief Executive Officer
CRH – CAISSE DE REFINANCEMENT DE L'HABITAT
marc.nocart@crh-bonds.com

GERMANY
Otmar Stöcker
Managing Director
ASSOCIATION OF GERMAN PFANDBRIEF BANKS – vdp
stoecker@pfandbrief.de

GREECE
Alexander Metallinos
Partner
KARATZAS & PARTNERS LAW FIRM
a.metallinos@karatza-partners.gr

HUNGARY
Rita Bozzai
Senior Advisor
Capital Markets Department
TAKARÉK MORTGAGE BANK CO. PLC.
bozzai.rita@takarek.hu

Illés Tóth
Head of Department
Capital Markets Department
TAKARÉK MORTGAGE BANK CO. PLC.
toth.illes@takarek.hu

ICELAND
Eiríkur Magnús Jensson
Head of Funding
ARION BANK
eirikur.jensson@arionbanki.is

Kristín Erla Jónsdóttir
Funding
ARION BANK
kristin.erla.jonsdottir@arionbanki.is

IRELAND
Group Legal Services team
Bank of Ireland

Nick Pheifer
Head of Legal
DEPFA BANK plc
nick.pheifer@depfa.com

ITALY
Marco Marino
Credit & Development department
ITALIAN BANKING ASSOCIATION
marco.marino@abi.it

JAPAN
Elena Bortolotti
Chairwoman of the ECBC Rating Agency Approaches Working Group & Global Head of Covered Bonds and Head of Structured Solutions EME, Barclays
elena.bortolotti@barclays.com

Atsushi Ouchiyama
Head of Debt Strategy & Issuance Group, Treasury Dept.
Sumitomo Mitsui Banking Corporation
Ouchiyama_Atsushi@dn.smbc.co.jp

Eldar Mezbur
Goldman Sachs
Eldar.Mezbur@gs.com

LATVIA
Santa Rubīna
Senior Associate
Sorainen
santa.rubina@sorainen.com

Inese Heinacka
Senior Associate
Sorainen
inese.heinacka@sorainen.com

Richard Kemmish
Founder
Richard Kemmish Consulting Limited
richardkemmish@outlook.com

Jacek Kubas
Associate Director
EBRD
kubasj@ebrd.com

LITHUANIA
Dalia Augaitė
Senior Associate
Law Firm Sorainen
dalia.augaite@sorainen.com

Tomas Kontautas
Country Managing Partner
Law Firm Sorainen
Tomas.Kontautas@sorainen.com

LUXEMBOURG
Matthias Melms,
formerly Nord/LB

Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

THE NETHERLANDS
Joost Beaumont
Chairman of the ECBC Statistics & Data Working Group
Senior Fixed Income Strategist
ABN AMRO BANK N.V.
joost.beaumont@nl.abnamro.com

Ruben van Leeuwen
Head of Credit Strategy & Regulation
RABOBANK
ruben.van.leeuwen@rabobank.com

Maureen Schuller
Head of Financials Research
ING BANK N.V.
maureen.schuller@ing.nl

NEW ZEALAND
Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

NORWAY
Michael H. Cook
Senior Analyst
FINANCE NORWAY
mhc@finansnorge.no

PANAMA
Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

POLAND
Krzysztof Dubejko
Head of Treasury Department
mBANK HIPOTECZNY
krzysztof.dubejko@mhipoteczny.pl

Daniel Goska
Head of Controlling
PKO Bank Hipoteczny
daniel.goska@pkobh.pl

Agnieszka Tułodziecka
President
POLISH MORTGAGE CREDIT FOUNDATION
a.tulodziecka@ehipoteka.pl

PORTUGAL
Cláudio Domingues
Banco Comercial Português
claudio.domingues@millenniumbcp.pt

ROMANIA
Romanian Association of Banks
www.arb.ro

Adrian-Stefan Sacalschi
Head of Branch Frankfurt
Takarék Mortgage Bank
adrian.sacalschi@takarek.hu

Nicoleta Ruxandescu
Alpha Bank Romania

RUSSIA
Tim Lassen
Director for Foreign Legal Affairs
PFIG HOLDING, Moscow
Russian Federation
TimLassen@pfpg.ru

SINGAPORE
Colin YS Chen
Chairman of the ECBC Global Issues Working Group
Managing Director and co-Head, Financial Institutions and Structured Products, Global Fixed Income
DBS Bank Ltd
colinchen@dbs.com

Franz Rudolf
Managing Director
Head of Financials Credit Research
UNICREDIT
franz.rudolf@unicredit.de

SLOVAKIA
Slavomíra Páleníková
Senior primary issue specialist
Všeobecná úverová banka, a.s.
spalenikova@vub.sk

Andrej Zeher
Lawyer
Všeobecná úverová banka, a.s.
azeher@vub.sk

Matej Krčmár
Senior bank regulatory expert
National bank of Slovakia
matej.krcmar@nbs.sk

SLOVENIA
Franz Rudolf
Managing Director
Head of Financials Credit Research
UNICREDIT
franz.rudolf@unicredit.de

SOUTH KOREA
Hoin Lee
Senior Foreign Attorney
KIM & CHANG
hoin.lee@kimchang.com

Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

SPAIN
Gregorio Arranz
Secretary General
SPANISH MORTGAGE ASSOCIATION – AHE
garranz@ahe.es

SWEDEN
Jonny Sylvén
Association of Swedish Covered Bond Issuers (ASCB)
jonny.sylven@swedishbankers.se

SWITZERLAND
Robert Horat
Chief Executive Officer
PFANDBRIEFBANK SCHWEIZERISCHER HYPOTHEKARINSTITUTE AG
robert.horat@pfandbriefbank.ch

Markus Müller
PFANDBRIEFBANK SCHWEIZERISCHER HYPOTHEKARINSTITUTE AG
Markus.Mueller@pfandbriefbank.ch

Bernd Volk
Director, Head of European Covered Bond & Agency Research
Deutsche Bank
Bernd.Volk@db.com

Marco Brück
Head Treasury
Valiant Bank AG
marco.brueck@valiant.ch

Boudewijn Dierick
ECBC Chairman
Moderator of the ECBC European Secured Notes (ESN) Task Force
Head of Covered Bond and Flow ABS Structuring
BNP PARIBAS
boudewijn.dierick@uk.bnpparibas.com

Michael P McCormick
Director – Head of Covered Bond Origination
CREDIT SUISSE INTERNATIONAL
michael.mccormick@credit-suisse.com

TURKEY

Özlem Gökçeimam
Head of Structured Finance / Financial Institutions
GARANTI BANK
ozlemgokc@garanti.com.tr

UNITED KINGDOM

John Millward
Managing Director, Structured Finance Group
HSBC BANK PLC
john.millward@hsbcgroup.com

Ian Stewart
Executive Director
UK RCBC
ian.stewart@ukrcbc.org

UNITED STATES

Steffen Dahmer
Chairman of the ECBC Market Related Issues Working Group
Executive Director – Global Product Manager Covered Bonds, Syndicate Covered Bonds
JP MORGAN
steffen.dahmer@jpmorgan.com

CHAPTER 4 RATING AGENCIES & METHODOLOGY

Elena Bortolotti
Chairwoman of the ECBC Rating Agency Approaches Working Group &
Global Head of Covered Bonds and Head of Structured Solutions EME, Barclays
elena.bortolotti@barclays.com

DBRS MORNINGSTAR

Ketan Thaker
Managing Director,
Head of European RMBS and Covered Bonds
DBRS Ratings Limited
Ketan.thaker@dbrsmorningstar.com

Christian Aufsatz,
Managing Director, Head of European Structured Finance
DBRS Ratings Limited
Christian.aufsatz@dbrsmorningstar.com

FITCH RATINGS

Carmen Muñoz
Senior Director
FITCH RATINGS
carmen.munoz@fitchratings.com

Hélène Heberlein
Managing Director
FITCH RATINGS
helene.heberlein@fitchratings.com

MOODY‘S

Jane Soldera
Senior Vice President
MOODY'S INVESTORS SERVICE LTD
jane.soldera@moodys.com

Nicholas Lindstrom
Associate Managing Director
MOODY'S INVESTORS SERVICE LTD
nicholas.lindstrom@moodys.com

Juan Pablo Soriano
Managing Director
MOODY'S INVESTORS SERVICE LTD
juanpablo.soriano@moodys.com

S&P GLOBAL RATINGS
Barbara Florian
Senior Director
Analytical Manager
S&P GLOBAL RATINGS
barbara.florian@spglobal.com

Antonio Farina
Senior Director
S&P GLOBAL RATINGS
antonio.farina@spglobal.com

SCOPE RATINGS GmbH
Karlo Stefan Fuchs
Managing Director, Head of Covered Bonds
SCOPE RATINGS GmbH
k.fuchs@scoperatings.com

Mathias Pleißner
Managing Director, Head of Covered Bonds
SCOPE RATINGS GmbH
m.pleissner@scoperatings.com

CHAPTER 5
COVERED BOND STATISTICS

Joost Beaumont
Chairman of the ECBC Statistics & Data Working Group
Senior Fixed Income Strategist
ABN AMRO BANK N.V.
joost.beaumont@nl.abnamro.com

AUSTRALIA
Chris Dalton
Chief Executive Officer
THE AUSTRALIAN SECURITISATION FORUM – ASF
cdalton@securitisation.com.au

Ellie Wyllie
Senior Analyst
Fixed Income & Currencies – Commodities and
Global Markets
Macquire Bank Ltd
ellie.wyllie@macquarie.com

Robert Gallimore
Policy Executive
THE AUSTRALIAN SECURITISATION FORUM – ASF
rgallimore@securitisation.com.au

AUSTRIA
Katarzyna Kapeller
Head Office Treasury
RAIFFEISEN BANK INTERNATIONAL AG
katarzyna.kapeller@rbinternational.com

BELGIUM
Maureen Schuller
Head of Financials Research
ING BANK N.V.
maureen.schuller@ing.com

BRAZIL
Filipe F. Pontual
Managing Director
ABECIP – The Brazilian Association of Real Estate Loans
filipepontual@abecip.org.br

CANADA
Lily Shum
Covered Bond Advisor
CANADA MORTGAGE AND HOUSING CORPORATION
lshum@cmhc-schl.gc.ca

Andrea Low
Senior Analyst, Covered Bonds Monitoring
CANADA MORTGAGE HOUSING CORPORATION – CMHC
alow@cmhc-schl.gc.ca

CYPRUS
Irene Loizidou
Officer Group Funding Department – Group Treasury
BANK OF CYPRUS
Irini.Loizidou@bankofcyprus.com

CZECHIA
Stepan Nyvlt
Head of Debt Capital Markets – Corporate &
Investment Banking
UNICREDIT BANK CZECH REPUBLIC AND SLOVAKIA, A.S.
stepan.nyvlt@unicreditgroup.cz

DENMARK
Lars Ravn Knudsen
Head of Department
FINANCE DENMARK
lrk@fida.dk

FINLAND
Mariia Somerla
Finance Finland
Mariia.somerla@finanssiala.fi

FRANCE
Boudewijn Dierick
ECBC Chairman
Head of Covered Bond and Flow ABS Structuring
BNP PARIBAS
boudewijn.dierick@uk.bnpparibas.com

GERMANY
Steffen Stachna
Manager Capital Markets
Association of German Pfandbrief Banks – vdp
stachna@pfandbrief.de

GREECE
Dimitrios Kalanidis
Capital Instruments and Securitisations Division
ALPHA BANK
dimitrios.kalanidis@alpha.gr

HUNGARY
Mária Móra
Chief Adviser
Hungarian Banking Association
mora.maria@bankszovetseg.hu

ICELAND
Eiríkur Magnús Jensson
Head of Treasury
ARION BANK
eirikur.jensson@arionbanki.is

Kristín Erla Jónsdóttir
Funding manager
ARION BANK
kristin.erla.jonsdottir@arionbanki.is

IRELAND
Gavin Purtill
Head of Capital Markets
BANKING AND PAYMENTS FEDERATION IRELAND / ACS IRELAND
gavin.purtill@bpfi.ie

ITALY
Marco Marino
Analyst, Credit department
ITALIAN BANKING ASSOCIATION – ABI
marco.marino@abi.it

LATVIA
Frederik Kunze
Covered Bond Analyst
NORDDEUTSCHE LANDESBANK – NORD/LB – GERMANY
frederik.kunze@nordlb.de

Henning Walten
Covered Bond Analyst
NORDDEUTSCHE LANDESBANK – NORD/LB – GERMANY
henning.walten@nordlb.de

LUXEMBOURG
Frederik Kunze
Covered Bond Analyst
NORDDEUTSCHE LANDESBANK – NORD/LB – GERMANY
frederik.kunze@nordlb.de

Henning Walten
Covered Bond Analyst
NORDDEUTSCHE LANDESBANK – NORD/LB – GERMANY
henning.walten@nordlb.de

THE NETHERLANDS
Maureen Schuller
Head of Financials Research
ING BANK N.V.
maureen.schuller@ing.com

NEW ZEALAND
Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

NORWAY
Michael H. Cook
Senior Analyst
FINANCE NORWAY
michael.hurum.cook@finansnorge.no

PANAMA
Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

POLAND
Daniel Goska
Head of Controlling
PKO Bank Hipoteczny
Daniel.goska@pkobh.pl

PORTUGAL
Claudio Domingues
Banco Comercial Português, S.A. (Millennium)
claudio.domingues@millenniumbcp.pt

JAPAN
Elena Bortolotti
Chairwoman of the ECBC Rating Agency Approaches Working Group
Global Head of Covered Bonds and Head of structured Solutions EME, Barclays
elena.bortolotti@barclays.com

Atsushi Ouchiyama
Senior Vice President
SMBC
Ouchiyama_atsushi@dn.smbc.co.jp

SINGAPORE
Colin Y S Chen
Chairman of the ECBC Global Issues Working Group
Managing Director and co-Head Financial institutions and Structured Products
DBS Bank Ltd
colinchen@dbs.com

SLOVAKIA
Proceedings and Policy Section
Banking Supervision Department
Národná banka Slovenska
matej_krcmar@nbs.sk

SOUTH KOREA
Frank Will
Chairman of the ECBC EU Legislation Working Group
Global Head of Covered Bond Research
HSBC
frank.will@hsbc.de

SPAIN
Gregorio Arranz
Secretary General
SPANISH MORTGAGE ASSOCIATION – AHE
garranz@ahe.es

Leyre López
Research
SPANISH MORTGAGE ASSOCIATION – AHE
leyre.lopez@ahe.es

SWEDEN
Christian Nilsson
Senior Adviser, Statistics and Reporting
ASSOCIATION OF SWEDISH COVERED BOND ISSUERS – ASCB
christian.nilsson@swedishbankers.se

SWITZERLAND
Robert Horat
Chief Executive Officer
PFANDBRIEFBANK SCHWEIZERISCHER HYPOTHEKARINSTITUTE AG
robert.horat@pfandbriefbank.ch

Markus Müller
PFANDBRIEFBANK SCHWEIZERISCHER HYPOTHEKARINSTITUTE AG
markus.mueller@pfandbriefbank.ch

Michael P McCormick
Director – Head of Covered Bond Origination
CREDIT SUISSE INTERNATIONAL
michael.mccormick@credit-suisse.com

TURKEY
Özlem Gökçeimam
Head of Structured Finance / Financial Institutions
Garanti Bank
OzlemGokc@garantibbva.com.tr

UNITED KINGDOM
Ian Stewart
Executive Director
UK RCBC
ian.stewart@UKRCBC.org

FOREWORD

Between crisis and opportunities, building a better future for our next generation

As the Covid-19 pandemic has swept through Europe, it has filled us all with a deep awareness of and insight into the radical changes ahead of us. We all feel the winds of change blowing and we are preparing ourselves for a massive transformation of our society and with this also the economic and financial landscape. Never before in history have we seen a global pandemic which has simultaneously and dramatically impacted the supply and demand sides in all regions around the world, affecting the building blocks of our lives: how we work, how we study, how we interact with people, how we live. Underestimating the depth and the intensity of this change would be a mistake.

This crisis is highlighting and accelerating key drivers of change and dynamics which some have tried to overlook or hide. Today more than ever we see that in our society every change has an impact on the rest of the globe and every change in the rest of the globe has implications for our daily life: those who are hiding behind borders or walls must understand that no border or wall can shield from the magnitude of the wind of change. There are no walls that can shield from a pandemic, nor from new ideas, new economic models and financial crisis. Nothing can block the hope of looking for a better future, the promised land, which remains the only real driver of evolution for humankind. In fact, this is also a fundamental right to be guaranteed and a duty towards our future generations. Against this backdrop, for the majority there is a growing awareness that only global synergies and can preserve our civilisation and protect all of us from more dramatic scenarios.

The word crisis etymologically comes from the ancient Greek verb of "κρὶνω" which means select, decide. In fact, in ancient times, "κρὶσις" was the process after the wheat harvest of selecting the best seeds to be kept and used for planting, to prepare the fields for the next season. This selection allowed the community to survive, get through the winter and look forward to a better future with an abundant harvest.

This unprecedented crisis should help us to select the right seeds to allow our global community to plant the cultivation which will secure a fair and sustainable future.

The essence of this spirit is the basis for the action plan of the European Union called Next Generation EU. The coronavirus has shaken Europe and the world to its core, testing healthcare and welfare systems, our societies and economies and our way of living and working together. To protect lives and livelihoods, repair the Single Market, as well as to build a lasting and prosperous recovery, the European Commission is proposing to harness the full potential of the EU budget.

The real long term objective is fighting climate change and the plan proposed is intended to turn the immense challenge we face into an opportunity, not only by supporting the recovery but also by investing in our future: the European Green Deal and digitalisation will boost jobs and growth, the resilience of our societies and the health of our environment.

Those are the seeds identified to prepare the future for our upcoming generation. The Green Deal should be seen as an essential pillar of the Recovery Plan, going hand in hand with efforts to foster social mobility and the capacity of the most vulnerable part of the society to improve their future prospects.

This cultural attitude is the fundamental of the welfare systems in Europe and the mortgage systems in the Old Continent are an integral way of providing a social lift in the different countries. For example, looking at benchmarks, Denmark is not only the largest mortgage market and, with on average EUR 55,000 per adult, one of the most mortgage intense economies in Europe but it is also the country where the young generation has the earliest access to housing and where a low-income Danish family can raise their wage and social status to the country's average in two generations, whereas in other regions in the globe it can take up to nine generations. Moreover, in terms of sustainability, Danish buildings now use half as much energy as they did 40 years ago.

Between 1990 and 2015 Denmark's carbon emission dropped 36% while its GDP more than doubled. This shows that economic and green can go hand in hand. In 1990 renewables supplied 6% of Denmark's energy, now they supply 33%. Denmark is the most prepared country for the energy transition and to meet the goals of the Paris Agreement being by 2050 carbon neutral.

Our democracies are based on their capacity to guarantee social mobility, and capital markets and mortgage markets are, for their, part essential components of the balance mechanisms to guarantee fair and sustainable societies. So, their smooth functioning is not only economically significant but politically relevant.

If we select the right seeds, this crisis can pave the way for a new, green 'renaissance'. This will open up new perspectives at global level, in much the same way as the Black Plague was the trigger for a deep revolution of the society, labour market, financial and technological landscape at that time, setting the preconditions for the socio-cultural revolution called the Renaissance.

As for the Renaissance, private stakeholders can play a significant role and act as catalysts for a change in mentality. Like pioneers, we need to develop constructive spirits, build bridges, undertake collaborative actions and show leadership in tackling key building blocks. All this will result in adapting financial mechanisms and best practices to the new reality.

The private sector can certainly contribute significantly by channelling financial resources to support social mobility and a transition economy towards low carbon standards. The challenge that we need to tackle is to convince the largest number of citizens to make the green Renaissance their hope for the future. We must be careful to highlight the green added value and not make the green wave an obstacle for their ambitions. From our perspective it would be very counterproductive socially and economically to implement binary policy solutions, i.e. stick and carrot policies, which could ultimately hit the most vulnerable part of our society making their access to credit more difficult. Capital cost is the real priority for banks, a fine tuning of the prudential framework with a gradual privileged treatment for energy efficient mortgages would be the most appropriate approach, based on the evidence produced by the H2020 EeDaPP project. This risk sensitive approach would allow banks to align their risk profiles without shocking their capital structures, and in this way facilitate the implementation of sustainable financial products and boost private sustainable investments towards the real economy.

With these considerations in mind, the EMF-ECBC is setting out new strategies and putting forward concrete sets of market actions to support Next Generation EU.

With EUR 7 trillion of mortgages outstanding, the mortgage industry a key driver for social mobility and economic growth. Moreover, the Covered Bond industry, with EUR 2.7 trillion of outstanding bonds is the CMU gateway for long term investors and for lender access to long term funding. Moreover, from a financial stability perspective, the asset class represents a unique solid macroprudential instrument which has also proven its value as a crisis management tool.

In the context of Covid 19 and against the backdrop of financial vulnerability for at least a quarter of European families, the EMF-ECBC took early action and created a European task force to coordinate and promote policy and market actions in order to support consumers in financial difficulty and facilitate access to credit for businesses. This immediate reaction during the lockdown period together with the introduction of measures such as moratoria across European markets prevented a worsening of the situation and relieved financial pressure on families. In parallel, the EMF-ECBC undertook efforts to increase market transparency by securing additional market disclosures through new COVID and ESG sections in the Covered Bond Label's HTT.

In the context of the European Green Deal, the EMF-ECBC is reinforcing Industry capabilities to develop ESG funding and lending strategies.

For more than five years now, the EMF-ECBC has been leading on the Energy Efficient Mortgages Initiative (EEMI), which brings together the Horizon 2020 EU funded EeMAP, EeDaPP and EeMMIP projects. The EEMI has a threefold objective: First, to propose a private initiative promoting energy efficiency investments in buildings based on a common European definition of Energy Efficient Mortgages which helped to inform the work of the Technical Expert Group on the Taxonomy. Second, to create a standardised energy efficient mortgage (EEM) to facilitate the acquisition of energy efficient properties and the renovation of those not aligned with EE norms. Third, to evaluate the availability of EEM asset data across EU Member States and gather large scale datasets to investigate the link between building energy performance, market value, probability of default (PD) and loss-given-default (LGD). Indeed, the underlying assumption of the EEMI is that building energy efficiency reduces owners' payment disruption risk, increases property value, and, as a result, reduces credit risk for banks and financial institutions.

The end of August 2020 marked the conclusion of the **Horizon 2020 Energy Efficient Data Protocol & Portal (EeDaPP) Project** which has delivered, after 30 months of intense work, data collection, market analysis and consultations, very important results for both the Industry and policymakers:

1. The **EeDaPP Master Template** (& accompanying explanatory White Paper) (link to both), a protocol which provides a common Industry benchmark for the collection of data related to building energy performance and which will constitute the basis for the development of disclosure best practices in the Energy Efficient Mortgage Label;

2. A **comprehensive analysis into the correlation between energy efficiency and credit risk** (link). The econometric analysis demonstrates a negative and significant correlation between building energy performance and the probability of mortgage default, potentially paving the way for new policy considerations in relation to EEM.

The econometric evaluation provided in the analysis focuses on the specific case of Italy. According to the associated portfolio analysis, the percentage of more EEM has been increasing over the last decade, while less efficient properties are predominantly affected by default. Significantly and as indicated above, the econometric evaluations highlight a negative correlation between EE and the owners' PD, thus confirming that energy efficiency investments tend to improve owners'/borrowers' solvency. Additionally, the results indicate that the degree of energy efficiency also matters, i.e., more energy efficient buildings are associated with relatively lower risk of default. Once again, these findings highlight the role of energy efficiency in reducing the default probability of a borrower. All in all, this report shows that people with more energy efficient homes and lower energy bills, can better afford their mortgage payments, reducing financial risk for banks and investors.

The selection of the portfolio analysed with a data series of 10 years, was based on approximately 470,000 real estate valuations. After a data cleaning exercise of this real market dataset, the total number of mortgages analysed was 72,980.

These results are of great significance in relation to the current policy agenda given their relevance for key files including the EU Green Deal, the Renewed EU Action Plan on Sustainable Finance and the implementation of Basel III into EU legislation.

Indeed, the evidence produced by EeDaPP paves the way for a more risk sensitive approach in the regulatory treatment of EEM based on scientific confirmation that build energy performance has an impact on risk.

Against this background, the EMF-ECBC is leading efforts to establish an EEM Label which together with the Covered Bond Label will not only facilitate further data collection to substantiate this correlation on an ongoing basis, but which will also secure quality and transparency for market stakeholders in the gathering, processing and disclosure of EEM & ESG data, stimulating market development.

Boudewijn Dierick ECBC Chairman	Luca Bertalot EMF-ECBC Secretary General

ECBC
EUROPEAN COVERED BOND COUNCIL

ABOUT THE ECBC

The European Covered Bond Council (ECBC) is the platform that brings together covered bond market participants including covered bond issuers, analysts, investment bankers, rating agencies and a wide range of interested stakeholders. The ECBC was created by the European Mortgage Federation (EMF) in 2004. As of September 2020, the Council has over 125 members across 30 covered bonds jurisdictions and many different market segments. ECBC members represent over 95% of covered bonds outstanding. The ECBC and the EMF reintegrated in 2014 under a common umbrella entity, i.e. the Covered Bond & Mortgage Council (CBMC). The intention is to further develop synergies, share market best practices, achieve convergence across the whole value chain of this Industry, and, at the same time, to act as a market catalyst in origination and funding techniques.

Against this background, the purpose of the ECBC is to represent and promote the interests of covered bond market participants at the international level. The ECBC's main objective is to be the point of reference for matters regarding the covered bond industry and operate as a think-tank, as well as a lobbying and networking platform for covered bond market participants.

ECBC STRUCTURE

The Plenary Meeting is a bi-annual discussion forum where all ECBC members gather around the table to discuss issues and to establish strong network links.

The ECBC Steering Committee, headed by the ECBC Chairman, and composed of representatives from the major covered bond issuing jurisdictions and industry experts, is responsible for the day-to-day activities of the ECBC. It comes together once every quarter and addresses strategy related questions. Furthermore, it coordinates the agenda of the various working groups.

ECBC WORKING GROUPS

> **The EU Legislation Working Group**, chaired by Mr Frank Will, has over the past years successfully lobbied at EU and international level to obtain appropriate treatment for covered bonds. As its name suggests, this Working Group monitors EU legislation with a specific relevance for covered bonds. Most recently, this has included Basel III and CRD IV/CRR, with a focus on the Net Stable Funding Requirement (NSFR) and the Fundamental Review of the Trading Book (FRTB).

> **The Technical Issues Working Group**, chaired by Mr Morten Bækmand Nielsen, represents the technical think thank of the covered bond community, drawing on experts from across the industry to tackle key issues for the industry. The Working Group tackles subjects relating to covered bonds such as the use and treatment of derivatives in the cover pool, bankruptcy remoteness and latest market developments. The Working Group manages and updates a database which provides an overview of covered bond frameworks across the EU and globally and enables their features to be compared (this is accessible at www.ecbc.eu).

> **The Market Related Issues Working Group**, chaired by Mr Steffen Dahmer, discusses topics such as the MiFID review and conventions on trading standards and the market-making process.

> **The Statistics and Data Working Group**, chaired by Mr Joost Beaumont, is responsible for collecting and publishing complete and up-to-date information on issuing activities and volumes outstanding of covered bonds in all market segments. With over 30 different covered bond jurisdictions and numerous issuers, the collection of data is of utmost importance, particularly given that the ECBC data is increasingly viewed as the key source of covered bond statistics.

> **The Covered Bond Fact Book Working Group**, chaired by Mr Sascha Kullig, is responsible for the publication of the annual ECBC Covered Bond Fact Book. This publication covers market developments, as well as legislative frameworks in different countries and statistics.

> **The Rating Agency Approaches Working Group**, chaired by Ms Elena Bortolotti, examines the rating approaches applied by credit rating agencies for covered bonds and, when necessary, convenes meetings and publishes position papers accordingly.

> **The Global Issues Working Group**, chaired by Mr Colin Chen, focuses exclusively on covered bond issues from a global perspective in an effort to create synergies between traditional, new and emerging covered bond markets. The Working Group aims to allow the development of a more level playing field for all at a global level, helping to enhance transparency and convergence, and ensure a proper recognition of the macro prudential value of the covered bond asset class at a global level.

ECBC TASK FORCES

In addition to the afore-mentioned Working Groups, the ECBC has established the following topical Task Forces which consist of relevant covered bond market and legal experts from various jurisdictions at the EU and global levels: EMF-ECBC Covid-19 Recovery Task Force, ECBC Implementation Task Force, ECBC Task Force on Extendable Maturity Structures, ECBC European Secured Notes (ESN) Task Force, ECBC Transparency Task Force, ECBC Liquidity Task Force, ECBC Swap Task Force and ECBC Brexit Task Force.

Membership of the ECBC continues to grow and its agenda for the coming year is already filled with numerous activities. The ECBC's objective now is to press ahead in its work with a view to further strengthening its role in facilitating the communication amongst the different covered bonds stakeholders, in working as a catalyst in defining the common features that characterise the asset class and in facilitating improvements in market practices, transparency and liquidity.

More information is available from https://hypo.org/ecbc/

Luca Bertalot,
EMF-ECBC Secretary General

ECBC MEMBERS

ABECIP

ABN Amro

AIAF – Mercado De Renta Fija Sau

AIB Mortgage Bank – Allied Irish Banks Plc.

Aktia Bank plc

Alpha Bank A.E.

Alpha Bank Romania

Allen & Overy

Association Of Danish Mortgage Banks (Realkreditrådet – Finance Denmark)

Association of Swedish Covered Bond Issuers – ASCB

Australian Securitisation Forum (ASF)

AXA Bank Europe SCF

AXA Home Loans SFH

Banca Popolare di Milano – BPM

Banco Comercial Português S.A. (GOH Portugal)

Bank of Ireland Mortgages Bank

Bankia

Banking & Payments Federation Ireland – BPFI / ACS Ireland

Barclays

Bayerische Landesbank – Bayern LB

Belfius Bank

Berlin-Hannoversche Hypothekenbank AG – Berlin Hyp AG

BNP Paribas

BNP Paribas Fortis

BPCE

BRFKredit A/S

Caisse de Refinancement de l'Habitat – CRH

Caisse Française de Financement Local – CAFFIL

Canada Mortgage and Housing Corporation – CMHC

Canadian Imperial Bank of Commerce – CIBC

Chiomenti

Citigroup Global Markets Germany

Clifford Chance LLP

Commerzbank Securities

Crédit Foncier de France – Compagnie de Financement Foncier

Crédit Foncier de France

Crédit Agricole Corporate and Investment Bank

Crédit Agricole Home Loan SFH

Crédit Mutuel Arkéa

Credit Suisse Securities (Europe) Limited

CRIF

Coventry Building Society

Danish Ship Finance

Danske Bank

DBRS MorningStar-Credit Ratings

De Volksbank NV

Depfa ACS Bank

Deutsche Bank AG

DLR Kredit A/S

DNB Boligkreditt

Dutch Association of Covered Bond Issuers – DACB

DZ Bank

DZ HYP

EAA Covered Bond Bank Plc.

Eika Boligkreditt AS

Euromoney Conferences

European AVM Alliance – EAA

European DataWarehouse GmbH

Fédération des Caisses Desjardins du Québec

Finance Finland

Finance Norway – FNO

Fitch Ratings Ltd.

Grupo BBVA
Gruppo Banca Carige
HSBC SFH Finance
Hungarian Banking Association
Hypoport/Intertrust
ING Belgium
ING Group
Intesa Sanpaolo
Italian Banking Association – Associazione Bancaria Italiana – ABI
JP Morgan
KBC Bank
Korea Housing Finance Corporation – KHFC
La Banque Postale Home Loan SFH
Landesbank Baden-Württemberg – LBBW
Landesbank Hessen-Thüringen – HELABA
Linklaters Business Services LLP
Lloyds Banking Group
Luminor Bank AS
Luxembourg Bankers' Association – ABBL
Mbank Hipoteczny
Mode Finance
Moody's
Münchener Hypothekenbank eG
National Bank of Greece SA – NBG
Nationwide Building Society
Natixis
NatWest Markets
NIBC Bank N.V.
Nomura International Plc.
Norddeutsche Landesbank Girozentrale
Nordea Bank AB
Novo Banco S.A.
Nykredit A/S
OP Mortgage Bank
pbb Deutsche Pfandbriefbank AG
Pfandbrief & Covered Bond Forum Austria
Pfandbriefbank schweizerischer Hypothekarinstitute
PKO Bank Hipoteczny
Rabobank
Realkredit Danmark A/S
Royal Bank of Canada – RBC
S&P Global Ratings
Santander UK Plc.
Scope Ratings GmbH
Société Générale Corporate & Investment Banking
Société Générale Société de Crédit Foncier – SG SCF
SP Mortgage Bank Plc
Spanish Mortgage Association – Asociación Hipotecaria Española – AHE
Sumitomo Mitsui Banking Corporation (SMBC)
Svenska Handelsbanken – Stadshypotek
Swedbank AB
TAO Solutions
The Association of Banks in Singapore – ABS
The Mortgage Society of Finland
TXS GmbH
UBI Banca
UBS
UK Regulated Covered Bond Council – UKRCBC
UniCredit Group
Valiant Bank AG
Verband Deutscher Pfandbriefbanken e.V. – vdp
White & Case

COVERED BOND
LABEL

COVERED BOND LABEL

The Covered Bond Label is a quality Label which responds to a market-wide request for common qualitative and quantitative standards and for an enhanced level of transparency and comparability in the European covered bond market. The Label:

> Establishes a clear perimeter for the asset class and highlights the core standards and quality of covered bonds;

> Increases transparency;

> Improves access to information for investors, regulators and other market participants;

> Has the additional objective of improving liquidity in covered bonds;

> Positions the covered bond asset class with respect to regulatory challenges (CRD IV/CRR, Solvency II, redesign of ECB repo rules, etc.).

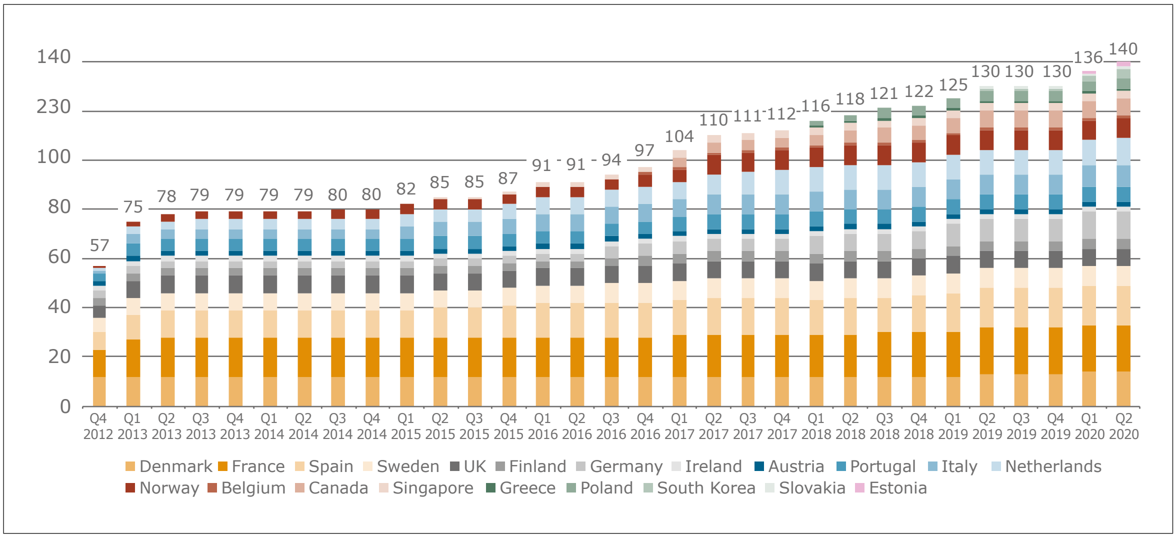
The Covered Bond Label Foundation (CBLF) was founded by the EMF-ECBC in 2012 and it was developed by the European issuer community, working in close cooperation with investors, regulators, and rating agencies and in consultation with all major stakeholders. The Label website became fully operational in January 2013, with the first Labels being granted since then.

As of September 2020, visitors can find the Harmonised Transparency Template (HTT) and 14 National Transparency Templates, 115 issuer profiles and information on 140 labelled cover pools with issuance data on over 5,500 covered bonds amounting to a total face value of around EUR 2 tn. In the first half of 2020, one new jurisdiction, Estonia, joined the Covered Bond Label family thus marking an important step of the Label in providing transparency and standards in upcoming covered bond markets. In this period the Label marked as well a further expansion in the in the German, Italian, South Korean and Canadian markets as more issuers decided to join.

The Label is based on the Covered Bond Label Convention (the one currently in force is 2020 Label Convention please see below), which defines the core characteristics required for a covered bond programme to qualify for the Label.

The Covered Bond Label Foundation (CBLF) granted the first Non-European Economic Area (non-EEA) Label in 2015. In February 2016, the first non-EEA global issuer published the HTT followed by the first European issuers. Currently, 14 out of 140 pools are form outside the EEA and the UK.

> FIGURE 1: EVOLUTION OF LABELLED COVER POOLS



The HTT is the worldwide standardised, Excel-based form that issuers who have been granted the Covered Bond Label use to disclose information on their covered bond programmes. Definitions and format of the disclosed information are standardised to increase comparability and transparency between issuers and between jurisdictions. Standardisation facilitates investors' due diligence, enhancing overall transparency in the Covered Bond market. The HTT, designed to be fully compliant with Art. 129(7) CRR transparency requirements, undergoes constant review, stirred by the Covered Bond Label Committee and the Covered Bond Label Advisory Council, so to be always up-to-date with regulatory and market requirements. Additional country-specific information on the covered bond programmes can be found in the National Transparency Templates often included in the HTT.

The HTT presents a significant achievement in terms of convergence of market best practices and a substantial step forward in enhancing transparency in the covered bond space both in Europe and across the globe. The HTT is a particularly positive step for the market and especially for global investors, who will be able to perform their due diligence activities more easily and obtain issuers' data ranging from asset and liability side information to legislative details from different countries in a more comparable way.

The new HTT 2021 which has been approved in September 2020 and which will be compulsory starting from Q1 2021 will include among others a new ESG data requirements section in order to react on the increased interest of this type of data in the covered bond market space.

2020 Covered Bond Label Convention

Covered bonds are debt securities, backed by mortgage, public sector or ship assets, and characterised by a twofold bondholders' protection mechanism rooted in a dedicated covered bond legal framework.

In more details:

I Legislation safeguards

a) The CB programme is embedded in a dedicated national CB legislation;

b) The bond is issued by – or bondholders otherwise have full recourse, direct or indirect[1], to – a credit institution which is subject to public regulation and supervision;

c) The obligations of the credit institution in respect of the cover pool are supervised by public supervisory authorities.

II Security features intrinsic to the CB product

a) Bondholders have a dual claim against:

   i. The issuing credit institution as referred to in point I b);

   ii. A cover pool of financial assets[2] (mortgage, public sector or ship assets), ranking senior to the unsecured creditors.

b) The credit institution has the ongoing obligation to maintain sufficient assets in the cover pool to satisfy the claims of covered bondholders at all times.

c) Issuers are committed to providing regular information enabling investors to analyse the cover pool, following the Harmonised Transparency Template[3] and in compliance with the transparency requirements of Article 129(7) of the CRR.

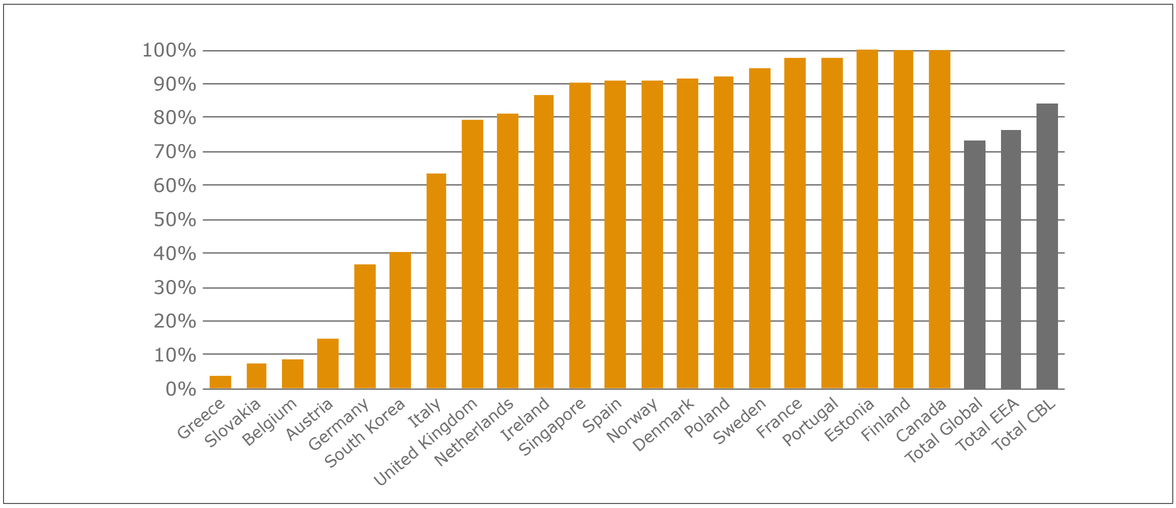
For further information on the Covered Bond Label Convention, visit https://www.coveredbondlabel.com/

1 Including pooling models consisting only of covered bonds issued by credit institutions.

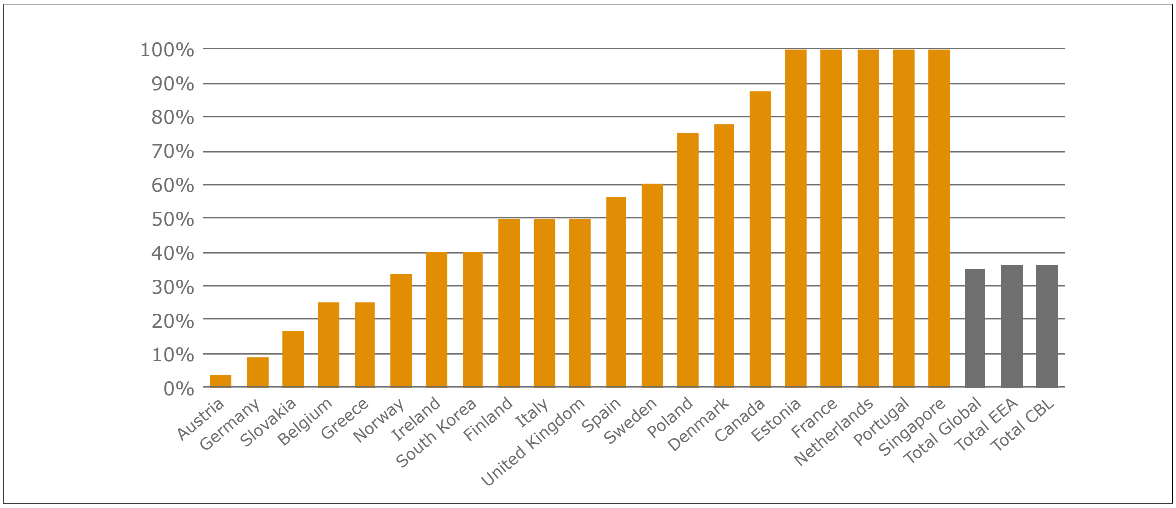
2 The financial assets eligible for the cover pool (including substitution assets and derivative instruments) and their characteristics are defined in the national covered bond legislation which complies with the requirements of Article 52(4) of the UCITS Directive and Article 129 of the CRR, as well as those articles which specify its implementation, including a waiver for the requirement for the issuer to be based in the European Economic Area (EEA), allowing non-EEA LCR compliant covered bonds programmes to be eligible for the Label. Non-EEA Labels will be identified on the Covered Bond Label website in a different graphic solution to EEA Labels.

3 The enhanced Harmonised Transparency Template 2020 will enter into force at the end of the first quarter of 2019 and will be a binding requirement for the granting and renewal of the Covered Bond Label.

> Figure 2A: Market share Covered Bond Label by outstanding



> Figure 2B: Market share Covered Bond Label by issuer



The data on the total covered bond market is based on end-2019 values, whereas data on the Covered Bond Label is based on data of August 2020

LABELLED COVER POOLS

AUSTRIA

UniCredit Bank Austria AG Credit Public Sector

UniCredit Bank Austria AG Credit Mortgage

BELGIUM

BNP Paribas Fortis Mortgage Pandbrieven

CANADA

CIBC Legislative

Bank of Montreal Cover Pool

CCDQ Covered Bond (Legislative) Guarantor Limited Partnership

RBC Covered Bond Guarantor LP

Scotiabank Covered Bond Guarantor Limited Partnership

TD Legislative Covered Bonds

National Bank of Canada Legislative Covered Bonds

DENMARK

Jyske Realkredit A/S Capital Center E

Danish Ship Finance A/S Capital Centre A

Danish Ship Finance General Capital Center Debenture Bonds

Danish Ship Finance General Capital Center Ship Mortgage Bonds

Danske Bank A/S Cover Pool D – Denmark

Danske Bank A/S Cover Pool I – International

Danske Bank A/S Cover Pool C – Commercial

DLR Kredit A/S Capital Centre B

Nordea Kredit Realkreditaktieselskab A/S Capital Center 1

Nordea Kredit Realkreditaktieselskab A/S Capital Center 2

Nykredit Realkredit A/S Capital Centre E

Nykredit Realkredit A/S Capital Centre H

Realkredit Danmark A/S Capital Centre S

Realkredit Danmark A/S Capital Centre T

ESTONIA

Luminor Bank AS, Euro Medium Term Note

LHV Pank AS, LHV CB1

FINLAND

Danske Mortgage Bank Plc, Pool 1

Nordea Mortgage Bank Plc, cover pool

OP Mortgage Bank

Sp Mortgage Bank Plc, SP-01

FRANCE

AXA Home Loan SFH

AXA Bank Europe SCF

BNP Paribas Home Loan SFH

BNP Paribas Public Sector SCF

BPCE Home Loan SFH

Caisse de Refinancement de l’Habitat, CRH

Caisse Française de Financement Local

CIF Euromortgage

Compagnie de Financement Foncier

Credit Agricole Home Loan SFH

Credit Agricole Public Sector SCF

Crédit Mutuel Home Loan SFH

Arkéa Home Loans SFH

Arkéa Public Sector SCF

HSBC SFH (France)

La Banque Postale Home Loan SFH

MMB SCF

Société Générale SCF

Société Générale SFH

GERMANY

LBBW Mortgage Cover Pool

LBBW Public Sector Cover Pool

BHH Mortgage Pfandbrief

MHB Mortgage Pfandbrief

NORDL/LB Public Sector

pbb Mortgage Pfandbrief

pbb Public Sector Pfandbrief

UniCredit Bank AG HVB Mortgage

UniCredit Bank AG HVB Public

DZ HYP AG Mortgage Pfandbrief

DZ HYP AG Public Sector Pfandbrief

GREECE

Alpha Bank Covered Bond Programme I

IRELAND

AIB Mortgage Bank ACS – (Asset Covered Securities)

Bank of Ireland Mortgages ACS – (Asset Covered Securities)

ITALY

Crédit Agricole Italia OBG S.r.l.

Banca Carige S.p.A. Credit Home/Commercial Loan

Banco Popolare de Milano, Bpm OBG2

Intesa Sanpaolo S.p.A. ISP CB Ipotecario S.r.l.

Intesa Sanpaolo S.p.A. ISP CB Pubblico S.r.l.

Intesa Sanpaolo S.p.A. OBG S.r.l.

UniCredit S.p.A. BpC Mortgage s.r.l.

UniCredit S.p.A. OBG srl

Südtiroler Volksbank Banca Popolare dell’Alto Adige Voba CB S.r.l.

NETHERLANDS

ABN AMRO Bank N.V. Cover Pool

Achmea Bank

Aegon Bank N.V. Cover Pool

Van Lanschot Bankiers N.V. Conditional Pass Through Covered Bond Programme

ING Bank N.V. ING Bank

ING Bank N.V. ING Bank Soft Bullet

NIBC Bank N.V. Conditional Pass-Through Covered Bond Programme

NN Bank Soft Bullet Cover Pool

NN Bank CPT Cover Pool

Volks Covered Bond Company B.V.

Rabobank

NORWAY

DNB Boligkreditt AS mortgage cover pool

Eika Boligkreditt AS (EIKBOL)

Møre Boligkreditt mortgage cover pool
Nordea Eiendomskreditt AS cover pool
SpareBank 1 Boligkreditt (Spabol)
Sparebanken Sør Boligkreditt AS cover pool
Sparebanken Vest Boligkreditt AS
SR-Boligkreditt mortgage cover pool

POLAND

Pekao BH mortgage
Pekao BH public sector
mBank Hipoteczny S.A. – Mortgage Cover Pool
PKO Bank Hipoteczny SA

PORTUGAL

Banco BPI S.A. Mortgage Cover Pool
Banco Comercial Português, S.A. – Residential Mortgages
Banco Santander Totta, S.A.
Caixa Económica Montepio Geral (CEMG)
Caixa Geral de Depósitos, S.A. Mortgage Cover Pool
NOVO BANCO Conditional Pass-Through Covered Bond Programme

REPUBLIC OF KOREA (SOUTH)

KHFC 2019 EUR 500 million Social Covered Bond due Jun 2024
KHFC 2020 EUR 1 billion Social Covered Bond due Feb 2025
Kookmin Bank USD 7 billion Global Covered Bond Programme
KHFC 2020 EUR 500 million Social Covered Bond due July 2025

SINGAPORE

DBS Bank Limited USD10 billion Global Covered Bond Programme
OCBC Limited USD 10b Global Covered Bond Programme
United Overseas Bank Limited USD8 billion Global Covered Bond Programme

SLOVAK REPUBLIC

Prima banka Slovensko a.s. PB Cover Pool 1

SPAIN

Banco de Sabadell, S.A. Covered Bond Programme
Banco de Sabadell, Public Sector Programme
Bankia, Bankia Mortgage
CaixaBank SA, Mortgage Loans
CaixaBank SA, Public Loans
Banco Santander S.A., Santander Mortgage Covered Bonds
Kutxabank S.A., Kutxabank S.A.
Unicaja Banca, S.A., Unicaja Banco Mortgage Covered Bonds
BBVA, Covered Bond Programme
BBVA, Public Sector Covered Bond Programme
Bankinter S.A., Bankinter S.A.
Ibercaja Banca S.A, Ibercaja Banco S.A.
Eurocaja Rural, Eurocaja Rural
Caja Rural de Navarra Credit Cooperative, Covered Bond
ABANCA Corporación Bancaria S.A.,
Grupo Cooperativo Cajamar, Cajamar Mortgage
Banco Santander S.A., Santander Mortgage Bonds
Banco Santander S.A., Santander Mortgage Bonds

SWEDEN

Länsförsäkringar Hypotek
Skandinaviska Enskilda Banken AB, SEB Cover Pool
Nordea Hypotek cover pool
Stadshypotek AB (publ) Finnish pool
Stadshypotek AB (publ) Swedish Pool
Stadshypotek AB (publ) Norwegian Pool
Swedbank Mortgage AB cover pool
The Swedish Covered Bond Corporation

UK

NatWest Covered Bond Programme
Clydesdale Bank PLC €10 billion Global Covered Bond Programme
Coventry Building Society 1006
Lloyds Bank plc EUR60bn Global Covered Bond Programme
Nationwide Building Society Covered Bond LLP
Santander UK plc
Yorkshire Building Society Covered Bonds

CHAPTER 1 - KEY THEMES OF THE YEAR

1.1 HARMONISATION OF COVERED BONDS AND EXTENDABLE MATURITIES – NEW STANDARDS

By Joost Beaumont, Chairman of the ECBC Statistics & Data Working Group, ABN AMRO Bank,
Elena Bortolotti, Chairwoman of the ECBC Rating Agency Approaches Working Group, Barclays,
Franz Rudolf, Unicredit

The journey towards harmonisation of European Union (EU) covered bond frameworks reached a milestone in November 2019 when the EU Parliament approved the text of the new Directive and Regulation. On 18 December, the text was published in the Official Journal of the European Union, implying that the Directive entered into force on 8 January 2020. This completed a process that had started in 2014.

The next phase is to incorporate the new Directive into national covered bond laws, for which countries have 18 months. Given that the Directive is of high-level and principle-based, there is a risk that national regulators interpret the Directive in different ways. Therefore, the ECBC has established an Implementation Task Force to monitor the legislative implementation process. This Task Force has identified three key areas that needed a more detailed analysis, with the conditions attached to covered bonds with extendable maturities being high on the agenda. In this article, we discuss the main details of the new legislative package, while we also have a detailed look at covered bonds with extendable maturities.

THE LEGISLATIVE PACKAGE

The legislative package includes a new Directive (i.e. rewrite of Article 52(4) of Directive 2009/65/EC) and a new Regulation (i.e. amendment of Article 129 of the CRR). The Directive will become the new single reference point for regulation related to covered bonds. It provides a common definition of covered bonds, while defining all core features of covered bonds, as well as defining the tasks and responsibilities of supervisors. Overall, it regulates the covered bond product with a focus on protecting investors. Still, the Directive has remained high-level and principle based. On the one hand, it strengthens the definition of covered bonds, while on the other hand, it prevents any harm to existing well-functioning markets. Furthermore, member states can take into account country-specific features when implementing the Directive in national covered bond frameworks. The latter reflects that for instance, mortgage laws, insolvency laws, and bankruptcy laws are still different in many countries.

The new Directive consist of the following chapters (or titles):

I. Subject matter, scope and definitions (Articles 1-3)
II. Structural features of covered bonds (Articles 4-17)
III. Covered bond public supervision (Articles 18-26)
IV. Labelling (Articles 27)
V. Amendments to other Directives (Articles 28-29)
VI. Final provisions (Articles 30-34)

The articles of the Directive start off by defining the dual recourse principle and bankruptcy remoteness of covered bonds, also noting that covered bonds can only be issued by EU credit institutions. Below we touch upon the most eye-catching features of the new Directive.

Cover assets

Article 6 deals with the type of assets allowed in cover pools. It notes that only high-quality assets can be used as collateral for covered bonds, referring to points (a) to (g) of CRR Article 129 (1). This includes the 'traditional' cover pool assets, such as residential mortgages, commercial mortgages, public sector loans, and ship loans. Currently, 89% of covered bonds are backed by mortgages.

However, the Directive leaves room to include other high-quality assets as long as their market value can be derived, while being enforceable in one way or the other. Furthermore, there needs to be a kind of registration in the case of physical assets. In addition, assets in the form of loans to, or guaranteed by, public undertakings are allowed as cover assets under certain conditions (e.g. a minimum level of overcollateralisation of 10%). As a result, we might see the creation of cover pools with non-traditional cover assets. Moreover, the outbreak of the Covid-19 pandemic, and the focus on banks to keep lending to the real economy, could open the debate to how covered bonds could be used to help the recovery (i.e. supporting the use of covered bonds backed by non-traditional collateral assets). The covered bond industry likes to stress that it does not prefer a watering down of the quality of collateral allowed in cover pools in order to safeguard the high quality of the covered bond product. In fact, it judges the introduction of European Secured Notes (Fact Book 2019, 1.11) as a good dual-recourse alternative for non-traditional collateral assets.

The articles following Article 6 describe that issuers might include cover assets from outside the EU in cover pools as long as they meet the criteria set out in Article 6, while the level of protection should be similar to assets from the EU. Another condition related to the cover assets is that member states should ensure that there is sufficient homogeneity of the cover assets regarding, for instance, their lifetime and risk profile. Finally, the Directive includes articles regarding the cover assets that address intra-group structures, joint funding, the use of derivative contracts, segregation of assets, and the cover pool monitor.

Joint Funding

Interesting to highlight is Article 11 about joint funding, which allows the pooling of cover assets by several credit institutions. Joint funding should reduce the costs of setting up covered bond programmes for smaller credit institutions, while it should allow them to issue covered bonds in reasonable size, which improves their liquidity. As such, joint funding should support smaller credit institutions to join forces, paving their way to the covered bond market. The aim is also to create covered bond markets in countries where there is currently no well-developed market. The Baltic region is a good example, as Estonia, Latvia, and Lithuania are in the process of setting up a pan-Baltic covered bond framework, which would allow credit institutions from these countries to issue covered bonds with underlying assets from across these countries.

Reporting, OC requirements and liquidity risk

The Directive continues with proposals about the information that covered bond issuers need to provide in order to allow investors to carry out their due diligence properly. The Directive requires that issuers provide information on a quarterly basis related to the value of the cover pool and the outstanding covered bonds, a geographical split as well as type of cover assets, their market risks (including interest rate and currency risk), liquidity risks, maturity structures, and coverage.

Meanwhile, there are also important new requirements for overcollateralisation (OC) and liquidity. Indeed, the introduction of a minimum level of OC is one of the highlights of the legislative package in our view. Article 15 states that the 'aggregate principal amount of all cover assets is equal to or exceeds the aggregate principal amount of outstanding covered bonds'. This is the so-called 'nominal principle'. However, the Regulation also stipulates that a 5% minimum level of OC is required, based on a nominal calculation. National authorities are allowed to reduce this level to a minimum of 2% under certain conditions (i.e. the calculation of OC is either based on a model which takes into account the assigned risk weights of the assets or a model where the valuation of the assets is subject to mortgage lending value). This seems to align the new legislation with common practice in Germany and Austria.

Furthermore, Article 16 strengthens investor protection for liquidity risk, as it requires for issuers to keep liquid assets to cover the net liquidity outflow for 180 calendar days. However, the liquidity buffer has some overlap with other EU legislation, in particular with the LCR. To reduce regulatory costs, national authorities will be able to align the different forms of EU legislation, to avoid that the same outflows will be covered with different liquid assets for the same period. A rewrite of the LCR seems the best solution to tackle this issue.

What is more, liquidity risk can also be addressed by the possibility to extend the maturity date of the covered bonds in case of liquidity shortage. The Directive allows national legislators to stipulate that issuers of covered bonds with extendable maturity structures can use the extended maturity date rather than the scheduled maturity of principal payments when calculating the liquidity buffer. However, some national legislators might not allow to base the liquidity buffer on the extended maturity date. In that case, issuers of soft bullets/conditional pass-through covered bonds will be forced to calculate the liquidity buffer without taking the extension into account.

Treatment of covered bonds with extendable maturities

The Directive then pays special attention to covered bonds with extendable maturities. It stresses the need to harmonise extendable maturity structures across the EU by setting specific conditions for these, while avoiding them to become too complex and expose investors to higher risks. The main focus is on the triggers that allow for the maturity extension. These should be objective and well-defined, while the maturity extension should be outside the discretion of the issuer. We discuss all details and issues related to extendable maturities extensively later in this chapter.

Public supervision

The new Directive continues with many pages about the public supervision of covered bonds. This contrasts heavily with the current legal framework, which does not define the nature, content and authorities that should be responsible for supervision. It is therefore essential to further harmonise public supervision of covered bonds, making clear the tasks and responsibilities of national supervisors for covered bonds. Furthermore, it should be ensured that supervisors have all the capabilities and means to carry out their role in a proper way. Indeed, the articles on public supervision address issues such as reporting requirements to authorities, the powers that supervisors have in case of non-compliance of issuers, and the role of the supervisor when an issuer is insolvent or in resolution. In the end, strengthened supervision will improve investor protection.

Labelling

The Directive introduces two new labels to the covered bond universe, albeit their use is facultative. Issuers can use the 'European Covered Bond' label for covered bonds that only comply with the Directive, while they can use the 'European Covered Bond (Premium)' label when the covered bonds also comply with the CRR. This should make it easier for investors to assess the quality of the covered bonds, which should increase their attractiveness inside and outside the EU, according to the Directive. Although it could help to identify the quality of different covered bonds, the Directive allows for the labels to be used in combination with national labels as well as that of the already existing Covered Bond Label. As a result, the new labels could create confusion rather than clarity.

Worth mentioning in this respect is the Covered Bond Label that the European Mortgage Federation and European Covered Bond Council already introduced in 2012. This label established a clear perimeter for the asset class and has resulted in the introduction of the Harmonised Transparency Template (HTT), which has improved transparency and reporting standards. As such, we expect that the labelling in the Directive will be absorbed by the existing Covered Bond Label which is already providing most of the reporting requirements and is actively preparing for the necessary steps to be taken.

Transition measures

The aim is to get a smooth transition towards the new Directive, which should prevent any unintended market distortions. Therefore, the Directive includes generous grandfathering provisions. Actually, all existing covered bonds that have been issued before 8 July 2022 and which comply with the UCITS Directive and the CRR will be grandfathered, keeping all existing regulatory benefits. As such, current outstanding covered bonds will not be treated differently, which should indeed allow for a smooth transition. Furthermore, it will be possible to tap already outstanding covered bonds under certain conditions (e.g. maximum of 5y remaining maturity, total issue size of taps less than twice the outstanding amount, while the total size at maturity does not exceed EUR 6bn) to 24 months after the Directive becomes effective.

Timeline

The new Directive will be fully effective 30 months after the Directive enters into force. Firstly, there will be a 18 month transposition period, after which issuers will get 12 months to comply with the new legislation. Therefore, the new legislative package will be fully effective on 8 July 2022.

Third country covered bonds and extendable maturities assessment

The Directive also includes calls for reviews and reports after the Directive has become effective. The regulatory treatment of covered bonds issued by credit institutions from third countries is one worth mentioning. The EC shall, in close cooperation with the EBA, publish a report, including legislative proposals, about whether and how an equivalent regime could be introduced for third-country credit institutions issuing covered bonds. However, this will take time, as the deadline has been set at 8 July 2024. Still, the prospect of third country covered bonds receiving a similar regulatory treatment could support the further development of covered bonds outside the EU.

Also by 8 July 2024, the EC should submit a report, and if appropriate a legislative proposal as well, about the risks and benefits of covered bonds with extendable maturity structures. This study should also be conducted in close cooperation with the EBA. Finally, by 8 July 2025, a report should be submitted about the implementation of the Directive and the developments of the covered bond market more generally. That report should also include recommendations for further action.

Finally, there is the request to the EC to adopt a report on the possibility of introducing the earlier mentioned dual-recourse instrument called European Secured Notes.

Amending Article 129 of the CRR

Amendments to Article 129 of the CRR are also part of the legislative package. These changes will be two-fold. On the one hand, some parts of the CRR Article 129 will be deleted. This is for instance true for the reporting requirements, which will be shifted towards the Directive. Furthermore, it will no longer be allowed to use as cover assets RMBS/CMBS or senior units issued by French Fonds Communs de Titrisation securitising residential or commercial property exposures.

Regarding the inclusion of substitution assets in the cover pool, it will be allowed to use substitution assets qualifying as credit quality step 2 for a maximum of 10% of outstanding covered bonds and also short-term deposits and derivative exposures qualifying as credit quality step 3 for a maximum of 8% of outstanding covered bonds. Before, only assets with credit quality step 1 were allowed (up to 15%), while now the substitution assets with credit quality step 1,2 and 3 together cannot exceed 15%. This amendment was due to the increased difficulty to comply with the former stricter rule.

Meanwhile, the minimum required level of OC has also been specified in the CRR (see above). Furthermore, the amendments address the issue of LTV limits. Overall, the authorities stick to the 80% LTV limit for residential mortgages, 60% for commercial mortgages (with possibility to rise to 70%), and 60% for ship loans. However, the CRR is more explicit in saying that these are soft limits, implying that a loan in the pool can only act as collateral within the LTV limits without the need for the loans that exceed the required limits to be removed from the cover pool.

Alignment with proposals

All EU Member States need to adjust their covered bond frameworks to fully align them with the new Directive and Regulation. Overall, we do not expect major issues regarding the implementation of the new Directive in different countries, although some countries (e.g. Spain) have probably more issues updating their covered bond law.

Response of the sector and rating agencies

The covered bond community gave the new legislative package a warm welcome, saying it was extremely pleased with the outcome. The ECBC noted that *'The Package provides a basis for enhanced harmonisation of the European covered bond market, in line with the objectives of the CMU, reinforcing a European common qualitative benchmark for international investors and respecting well-functioning traditional markets. It moreover paves the way for the smooth introduction of this asset class in newer and emerging covered bond markets in the Union, such as those in the Baltic regions, Poland, Slovakia and Romania, and will also serve as an important legislative benchmark on a global level for countries such as Australia, Brazil, Canada, Japan and Singapore'.* The rating agencies also welcomed the new package, also stressing that it will further strengthen the quality of covered bonds, which is credit positive.

Extendable maturities: the new standard

We now turn to the discussion related to covered bonds with extendable maturities being the new standard. The most fundamental idea of covered bonds is safeguarding a steady flow of payments to investors following an issuer event of default. Once the issuer ceases to exist, the cash-flow stemming from a separate portfolio of assets is used to cover all claims due to bondholders. The two most significant sources of risk threatening the ability to satisfy the claims are (i) credit default risk, which potentially leads to an over-indebted cover pool and (ii) market risk – first and foremost in the form of liquidity risk – which potentially leads to a sufficiently large cover pool, which, however, is no longer able to satisfy claims due to illiquidity.

In the past, following an issuer default, the cover pool administrator could easily monetise the assets in the cover pool either by disposing parts of the cover assets or in an indirect way, i.e. by bundling them into an asset-backed security (ABS) or – if applicable – by using the refinance register. In particular against the backdrop of uncertainty regarding the functionality and the efficiency of these tools, it is particularly important that the cover pool administrator is equipped with a broad set of instruments so he is free to pick the most efficient one.

In cases involving hard bullet structures, issuers try to enhance the effectiveness of the tools by regularly calculating pre-maturity tests or by maintaining a certain amount of liquid assets in the cover pool – a costly exercise for issuers since liquid assets usually come with a negative carry. By extending the maturity, the liquidity and refinancing risk can be reduced. This can be achieved by either using soft bullet structures or pass-through structures. Soft bullet structures have a limited extension period of usually one year. However, since the soft bullet timeframe might still turn out to be insufficiently long, pass-through structures were introduced with the aim to completely eliminate any refinancing risk by eliminating pressure to sell assets at the expense of a maximum timeframe for the payment deferral.

Below, the definition of hard, soft and conditional pass-through covered bonds provided by the ECBC[1]:

> "Hard bullet covered bonds: are repaid on the scheduled maturity date. Neither the documentation nor the legal framework contain provisions for a maturity extension. Failure to repay the final redemption amount of a hard bullet covered bond on the scheduled maturity date could trigger the default of the relevant covered bonds and, possibly, the liquidation of the cover pool depending on the respective national insolvency rules.

> Soft bullet covered bonds: Soft bullet covered bonds have a scheduled maturity date and an extended maturity date. If objective, predefined and transparent criteria have been met, the maturity of a soft bullet covered bond can, and in some cases, will automatically, be prolonged up to the extended maturity date. During the extension period, the covered bond may be redeemed using cover pool proceeds. Failure to repay a covered bond on the extended maturity date triggers the default of the relevant extended covered bonds (unless multiple extensions are allowed).

1 https://www.coveredbondlabel.com/issuers/harmonised-definition

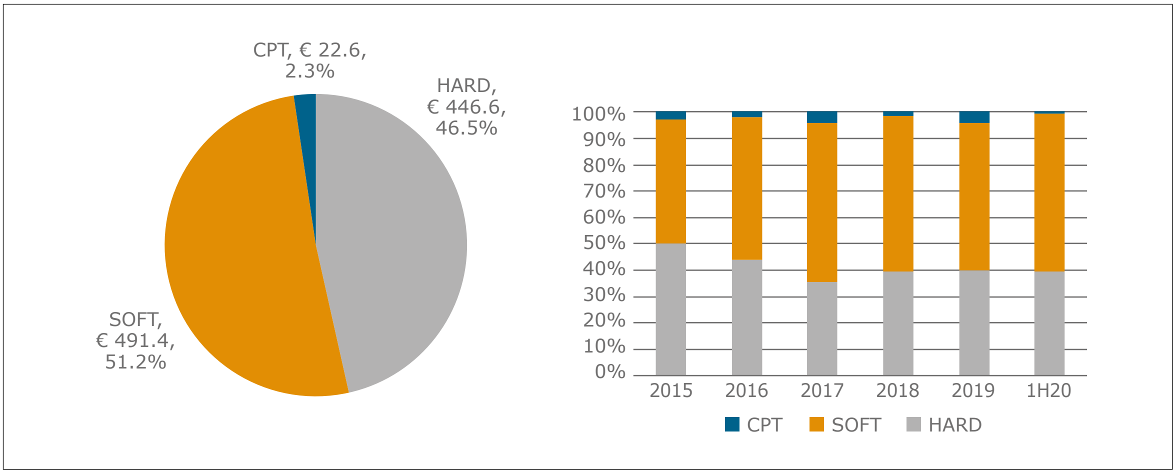
> Conditional pass-through covered bonds (CPTCB): Conditional pass-through covered bonds have a scheduled maturity date and an extension mechanism. By itself, the failure to repay the CPTCB on the scheduled maturity date does not lead to an acceleration of the covered bond but to an extension of the maturity date of this and potentially other relevant covered bonds. The extension requires that objective, predefined and transparent criteria are met. In such circumstances the maturity of a CPTCB can be prolonged to the extended maturity date, which is typically linked to the maximum legal maturity of the underlying assets. During the extension period, cash-flows received or generated from the cover assets will be distributed to the covered bonds investors. Regular attempts are in general made to sell the cover pool assets to redeem the covered bonds. Such sales are subject to predefined criteria intended to protect the interests of all investors under the same programme. In certain jurisdictions and programmes, CPTCB may feature an initial soft bullet extension."

Soft Bullet remains the prevailing extension format

Soft bullet covered bonds remained the prevailing benchmark issuance format in 2019 and the first half of 2020. As a result, these structures continue to dominate euro-denominated benchmark covered bonds. Measured against an outstanding total volume of EUR 960 bn (as of end-June 2020), the share of soft bullet covered bonds is 51% or EUR 491 bn. Conditional pass-through covered bonds now account for 2% or EUR 23 bn. By contrast, the share of hard bullet covered bonds continued to decline at 47% or EUR 447 bn. Covered bonds with extendable maturity structures have thus dominated the outstanding volume of benchmark covered bonds since 2017 and it can be assumed that this will also be the case in the future.

The share of new benchmark issues with extendable maturity structures (soft bullet or CPTCB) was 60% in 2019 (basically unchanged versus the previous year) and also in the first half of 2020. The proportion of bonds with extendable maturities versus hard bullet covered bonds depends to a certain extent also on the countries of origin as some jurisdictions have a dominant maturity structure, for example, hard bullet structures in Germany, France or Spain. With a share of 4% in 2019, conditional pass-through covered bonds also gained ground, thus defying the ECB's decision of 13 December 2018 that no conditional pass-through covered bonds will be purchased under CBPP3 any longer. Beside Polish, Greek and Italian issuers, in particular Dutch institutions were able to successfully place their conditional pass-through covered bonds with investors.

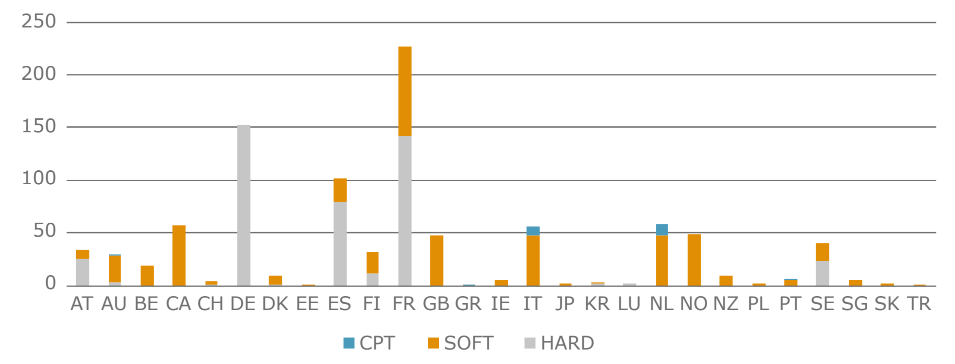
> Figure 1a & 1b: Outstanding covered bond volume and new issues by maturity structure



Source: Bloomberg, UniCredit Research – as of June 2020

Pure hard bullet jurisdictions are becoming a rarity. The only remaining countries in the benchmark universe are Germany (EUR 153 bn), the Spanish single Cédulas (EUR 80 bn) and Luxembourg (EUR 2 bn). Plans to introduce a maturity extension into the German Pfandbrief Act have been the subject of discussion for a number of years and remain in place. In case that new provisions on maturity extensions in Germany would also apply to already outstanding Pfandbriefe, the proportion of outstanding hard bullet covered bonds would see another substantial decline to just 30% of benchmark covered bonds based on current figures.

> Figure 2: Outstanding covered bond volume by country and maturity structure (EUR bn)



Source: Bloomberg, UniCredit Research – as of June 2020

Most covered bonds with an extendable maturity structure are currently issued on the basis of contractual regulations. So far, statutory requirements exist only in Poland and Denmark. With the revision of the Slovak covered bond legislation, legal regulations for extendable maturity structures in Slovakia have also entered into force at the beginning of 2018. In an insolvency, the general insolvency administrator is also responsible for the covered bond creditors. He first has to consider whether a regular continuation of the covered bond programme would lead to a reduced satisfaction of the claims of covered bond investors. If this is the case, he may transfer the covered bond programme to another Slovakian bank after prior approval from the Slovakian National Bank. The programme must be transferred within one year. Covered bonds that mature during that transfer period are automatically extended by 12 months. If the programme is not transferred in the above mentioned period, the national bank may decide to extend the period for a further 12 months.

Extendable maturity structures in the focus of EU harmonisation

As a result of the growing use of extendable maturity structures, regulators have increasingly turned their attention to them. As described earlier, the new Directive pays indeed special attention to them. The main questions raised were to what extent extendable maturity structures influence the dual recourse principle of covered bonds and the conditions of triggering an extension. For example, if the maturity extension were invoked too early, recourse to the issuer could be cut off too quickly, even though the issuer is still solvent. Moreover, if extension periods are too long, recourse to the issuer's insolvency estate is considerably delayed. We examine extendable maturity structures in light of 1. the new Directive and Regulation and 2. the EBA's Report on Covered Bonds, as the EBA will eventually publish a report on them as well.

1) The new Directive

The final text of the Directive defines extendable maturity structures as "a mechanism which provides for the possibility to extend the scheduled maturity of covered bonds for a pre-determined period of time and in the event that a specific trigger occurs". Article 17 of the final text of the Directive lays down the conditions for extendable maturity structures (see Figure 3 below).

Compared to the EBA report discussed below, the final text of the Directive has left to each national regulator to define in their respective covered bond frameworks what the maturity extension triggers should be. To avoid the risk of creating discrepancies amongst extendable maturity covered bonds across Europe, the ECBC Implementation Task Force has been set-up to identify, amongst other things, what could constitute objective triggers. The Task Force has identified two triggers, namely non-payment of principal at the final maturity date and/or the possibility for the cover pool administrator to decide to extend the maturity date of the covered bonds. Due to the various covered bond structures used in Europe, the Task Force has decided not to recommend what the consequences of an extension should be. Worth mentioning is that in the case of structures which use an SPV guarantor, the consequences of a maturity extension are clearly included in the base prospectuses of the programmes.

> Figure 3: Article 17 of the final compromise text of the Covered Bond Directive

Article 17 Conditions for extendable maturity structures

1. Member States may allow for the issue of covered bonds with extendable maturity structures where investor protection is ensured by at least the following:
   (a) the maturity can only be extended subject to objective triggers specified in national law, and not at the discretion of the credit institution issuing the covered bonds;
   (b) the maturity extension triggers are specified in the contractual terms and conditions of the covered bond;
   (c) the information provided to investors about the maturity structure is sufficient to enable them to determine the risk of the covered bond, and includes a detailed description of:
      (i) the maturity extension triggers;
      (ii) the consequences for a maturity extension of the insolvency or resolution of the credit institution issuing the covered bonds;
      (iii) the role of the competent authorities designated pursuant to Article 18(2) and, where relevant, of the special administrator with regard to the maturity extension;
   (d) the final maturity date of the covered bond is at all times determinable;
   (e) in the event of the insolvency or resolution of the credit institution issuing the covered bonds, maturity extensions do not affect the ranking of covered bond investors or invert the sequencing of the covered bond programme's original maturity schedule;
   (f) the maturity extension does not change the structural features of the covered bonds regarding dual recourse as referred to in Article 4 and bankruptcy remoteness as referred to in Article 5.
2. Member States which allow the issue of covered bonds with extendable maturity structures shall notify EBA accordingly.

Source: Final text of the Covered Bond Directive which will amend Directive 2009/65/EC and Directive 2014/59/EU, dated 27.11.2019

2) The EBA Report on Covered Bonds

In response to the addressed topics, the EBA's report entitled "Recommendations on Harmonisation of Covered Bond Frameworks in the EU" dated 20 December 2016 put forward a wide range of requirements for soft bullet and conditional pass-through covered bonds. The recommendations aim to ensure, first, that such bonds meet the covered bond definition (step 1) and, second, that they are eligible for preferential risk treatment under the CRR (step 2). Specifically, the conditions are as follows:

> Figure 4: EBA conditions for soft bullet and conditional pass-through covered bonds

> - The maturity extension may not be effected at the discretion of the issuer;
> - The maturity extension may only be effected upon the following triggers (both triggers must occur cumulatively): (i) the covered bond issuer defaulted; and (ii) the covered bond breaches pre-defined criteria/ test indicating a likely failure of the covered bond to be repaid at the scheduled maturity date;
> - The maturity extension may also be effected ahead of the triggers mentioned above, however only at the discretion of the special administrator and provided that the special administrator assesses other available options as insufficient to repay the relevant covered bond (only when the issuer is no longer a going concern);
> - This should not exclude the possibility of maturity extension/cease-payment orders that may be issued by competent authorities as part of their prompt corrective supervisory actions or in situations when the covered bond issuer is unable to repay the covered bonds due to regulations and/or market conditions as defined by law;
> - The order of time subordination may not be inversed for any covered bond investor affected by the maturity extension;
> - Covered bond investors and other pari passu ranking creditors under the covered bond programme must be treated equally after the maturity extension.
>
> 1 In the case of soft bullets, the trigger (i) may be considered sufficient for the maturity extension. In the case of specialist credit institutions, the default may refer to the one of the sponsoring institution and not the one of the issuer.

Source: EBA Report on Covered Bonds, LBBW Research

In most cases, the conditions for a maturity extension are set out in the base prospectus and related final terms. So far, statutory requirements exist only in Poland, Denmark and Slovakia. In general, a distinction can be made between two types of structure:

1) Issuer and cover pool constitute legally independent entities

These are normally SPV/guarantor structures. Several requirements have to be met before the maturity can be extended. First of all, non-payment of the covered bonds by the issuer on the final maturity date will automatically trigger an issuer event of default. The payment obligation then passes to the guarantor in connection with a notice to pay/guarantee enforcement notice. If the guarantor does not have sufficient liquidity to repay the covered bonds on the original date (final maturity date), payment is deferred to the extended maturity date.

This specific approach should comply with the EBA rules. On the one hand, the decision to extend the maturity is not made at the sole discretion of the issuer alone, but ultimately depends on the guarantor's ability to pay. The issuer not meeting its obligation to pay the covered bond on the final maturity date will trigger an issuer event of default. Accordingly, the maturity extension does not focus on the issuer's ability to survive, but on securing the largest possible repayment for investors.

2) Issuer and cover pool constitute the same legal entity

These are generally on-balance-sheet structures. In addition to universal bank structures, specialist credit institutions and French SFHs and SCFs are included in this group.

Unlike in the jurisdictions under group 1, the conditions for a maturity extension for these structures are much more general. For example, the only requirement for an extension is that the issuer is unable to pay on maturity. The biggest difference, however, concerns the issuer event of default. In most cases, the documentation notes that a maturity extension does not lead to a default of the issuer. Conversely, this would mean that the maturity can be extended to avert or postpone an issuer default. Accordingly, an issuer event of default would not occur until non-payment of the due amount on the extended maturity date or non-payment of interest. This would contradict the EBA's maturity extension proposals.

In the case of Polish covered bonds, a bankruptcy event of the Mortgage Bank triggers a maturity extension. However, it remains unclear if this would be in line with the EBA report which states that for specialist banks the sponsoring institution must have defaulted, and not the issuer itself.

The plans for a shift in the maturity date in Germany should also comply with the conditions drawn up by the EBA. In the event that insolvency proceedings are opened in respect of the Pfandbriefbank, each cover pool is separated as a legally independent entity with its own banking license (Pfandbriefbank with limited business activity). The management of these Pfandbrief banks with limited business activity is the responsibility of the cover pool administrator appointed in accordance with §31 PfandBG. As a result, the extension falls outside the issuer's scope of influence.

At present, 24 countries have covered bonds with extendable maturity structures outstanding in the iBoxx € Covered Index. Twelve jurisdictions have structures that should comply with the EBA conditions. The total amount of soft bullet and conditional pass-through covered bonds outstanding in those countries is EUR 277 bn as of June 2020. In the last 12 months some Austrian issuers have adapted their base prospectuses. According to the new wording, the covered bonds will be extended automatically to the extended maturity date if resolution measures are imposed on the issuer or for example in the event of insolvency. These structures should also comply with the EBA conditions.

> Figure 5: EBA compliant jurisdictions

EBA compliant		
Australia	New Zealand	Portugal (CPT)
Canada	Singapore	Slovakia
Italy	Switzerland	Austria
Netherlands	United Kingdom	Estonia

> Figure 6: Non-EBA compliant juridictions

Non-EBA compliant			
Austria	France	Norway	Turkey
Belgium	Greece	Poland	Cyprus
Denmark	Ireland	Portugal (SB)	
Finland	Japan	Sweden	

Source: Markit, Base Prospectuses, Final Terms, Barclays

Conditional pass-through structures have solid footprint

In 2013, conditional pass-through structures were introduced in the covered bond benchmark universe. NIBC was the pioneer issuing a EUR 500 mn 5Y benchmark covered bond in October 2013, followed by further benchmark issues on a yearly basis. While for the first two years, conditional pass-through structures were widely discussed but remained a niche product, it was in 2015 that this redemption format started to gain momentum. At the time of writing, there are conditional pass-through covered bonds issued out of the Netherlands, Italy, Portugal, Austria, Australia, and Greece. Poland is so far, the only country, which implemented a conditional pass-through extension into its covered bonds legal framework.

Since the first CPTCB issuance back in 2013 there are today circa 20 covered bond programmes, across jurisdictions, structured in conditional pass-through format.

In CPTCB programmes in general, following an issuer event of default, any repayments, including early repayments and excess spread, remain with the cover pool until a covered bond series reaches its scheduled maturity date (SMD). Following an issuer default, a particular covered bond will only become pass-through once a covered bond reaches its SMD and the available cash is insufficient to fully redeem the bond. Other outstanding covered bonds will not turn into pass-through covered bonds as long as they are paid as scheduled. It goes without saying, that the switch to pass-through on the SMD does not prevent the cover pool administrator from trying to sell assets in order to improve the liquidity of the cover pool and, in doing so, making the switch to pass-through less likely.

The maturity extension and switch to pass-through aims to reduce refinancing risk, i.e. the risk of fire-sales. In order to generate sufficient cash flows to repay the covered bonds due, the cover pool administrator is empowered to sell a randomly selected part of the asset portfolio as long as the conditions of the amortisation test are met.

Following issuer default, the amortisation test has to be passed. The amortisation test is designed to ensure that cover assets are sufficient to repay the outstanding covered bonds. Key aspects in that respect are the level of overcollateralisation in the programme as well as provisions to address transactions risks like servicing. If the test is failed, the commonly used structure is that all covered bonds becoming pass-through. In this case, it will be required to use all funds available to redeem all covered bonds on a pro rata basis, while interest continues to accrue on the unpaid part of the covered bonds.

An important feature in the CPTCB is the minimum overcollateralisation (OC), which is needed to allow for the programme to switch to pass-through. Shortage of collateral, which could arise from paying administrative costs as well as covering potential credit losses, would otherwise instantly trigger a failure of the amortisation test and an acceleration of payments to bondholders. This reflects the fact that cover pool credit risk is the key remaining source of loss in the cover pool asset-liability-management. In order to eliminate market risk completely, the legal final maturity is extended to beyond the maximum maturity date of the cover pool assets. The extension period usually ranges from 31 years to 38 years, depending on the respective programme documentation.

The increased number of CPT programmes in the past few years has led to a relatively broad diversity of structures (Figure 7), for example showing different extension triggers and procedures following the failure of the amortisation test. While within countries like the Netherlands, CPT structures are relatively homogenous, they are less homogenous in Italy, Greece and Portugal and differ quite substantially between countries. It will be interesting to see if the transposition of the new Directive will reduce some of the differences we have seen across the numerous CPT structures currently in the market.

> Figure 7: Conditional pass-through format key features

	Feature	Australia	Austria	Cyprus	Greece 1	Greece 2	Italy 1	Italy 2	Netherlands	Poland	Portugal
1	Extension is an Issuer Event	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
2	Extension triggers Cross-Default	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗
3	Breach of Amo Test/ ACT Test or equivalent extends all Covered Bonds to pass-through	✓	✓	N.A.	✓	✗	✓	✗	✓	✓	N.A.
4	Breach of Amo Test is an Event of Default	✗	✗	N.A.	✗	✓	✗	✓	✗	✗	N.A.
5	Issuer Insolvency Event causes all bonds to become CPT	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓

Notes: 1. Polish Covered Bonds are subject to 12 months extension; if certain tests are breached, then all Covered Bonds become CPT; 2. Assuming that all Covered Bonds are issued under the same programme and have the same terms and conditions in relation to a breach of ACT Test.

Source: Base Prospectus, A&O

PASS-THROUGH VS. SOFT BULLET

The decisive difference between soft bullet redemption formats and (conditional) pass-through formats raises the question of the length of the deferral term. The longer the deferral period of the soft bullet payment regime, the closer the two redemption formats become. The remaining differences are not essential and could be replicated: the (implicit) SARA clause (Selected Asset Required Amount) is also frequently found in soft bullet structures. Thus, during the deferral period, the scope of actions taken by each cover pool administrator is quite similar: both will not hold on to an unnecessary amount of liquidity but will instead use it to redeem the deferred principal amount. Furthermore, both will try and find opportunities to liquidate assets (in line with the SARA clause) in order to allow redemption to occur as quickly as possible.

However, the one-year deferral period of most soft bullet covered bonds provides the cover pool administrator with a relatively limited timeframe in which the required amount of cover pool assets can be liquidated. In contrast, the opportunities in a (conditional) pass-through case are technically unlimited. Hence, market risk is mitigated with soft bullets covered bonds and eliminated with CPTCBs.

CONCLUSION

The harmonisation of covered bond frameworks via the national implementation of the new covered bond Directive should result in a less fragmented market in which investors will be even better protected, while the high quality of the covered bond product is safeguarded. By doing so, there will likely also be more clarity and transparency about covered bonds with extendable maturity triggers, also further strengthening the covered bond product.

1.2 ECB POLICY MEASURES IN LIGHT OF THE COVID-19 PANDEMIC AND THEIR IMPACT ON COVERED BONDS

By Maureen Schuller, ING, Franz Rudolf, Unicredit, Matthias Melms formerly Nord/LB

EXECUTIVE SUMMARY

The European Central Bank (ECB) perhaps has had the most prominent influence on the covered bond market throughout the past decade. Be it as a buyer of covered bonds, by granting banks access to central bank funding at favourable conditions, or by setting standards for collateral eligibility, the ECB has, for many years, defined the key performance and supply parameters for the covered bond market and continues to do so. The covered bond purchase programme and the TLTRO III are probably the non-standard monetary policy measures most discussed.

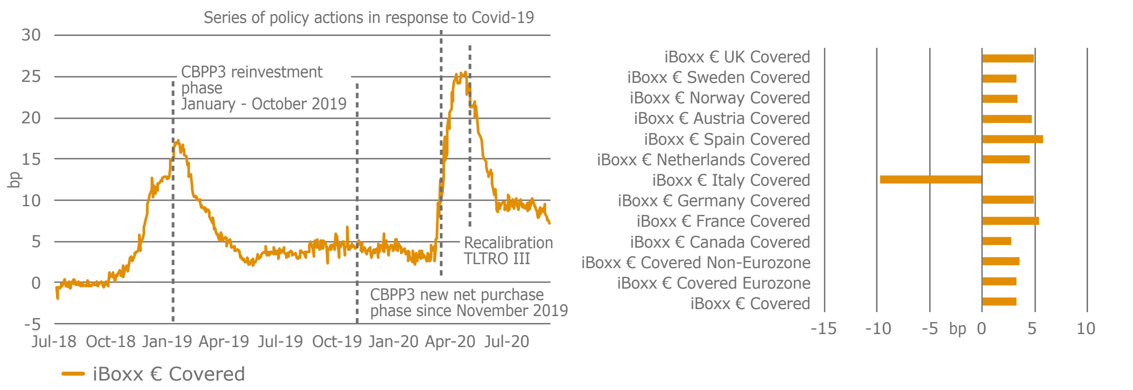
Initiated in September 2014 by the ECB and later embedded in a broader asset purchase programme, net purchases of the covered bond purchase programme (CBPP) are still ongoing. The programme has been a major driver for the covered bond market since its implementation. In addition, the influence of the ECB's longer-term refinancing operations on covered bonds has gained momentum following the amended conditions as a response to the Covid-19 pandemic. This article focusses on the criteria and mechanism of the purchase programme, discusses the ECB's targeted longer-term refinancing operations (TLTROs) and concludes with the use of covered bonds as collateral for ECB refinancing operations.

IMPACT ON COVERED BOND ASSET-SWAP SPREADS AND SUPPLY

A brief look at the asset-swap spread development of covered bonds (Markit iBoxx EUR Covered) shows the spread widening in 4Q18 prior to the end of the CBPP3 net purchase phase and the subsequent recovery of spread moves during the first half of 2019. Supported by the CBPP3 reinvestments, covered bond spreads moved sideways at relatively tight spread levels. The restart of new net purchases under the asset purchase programme led to a further slight tightening of spreads until the end of February 2020, before the Covid-19 pandemic started to impact capital markets. A series of policy actions in March 2020 in response to the Covid-19 pandemic led to a fast recovery of covered bond spreads.

> FIGURE 1: COVERED BOND ASSET-SWAP SPREAD DEVELOPMENT

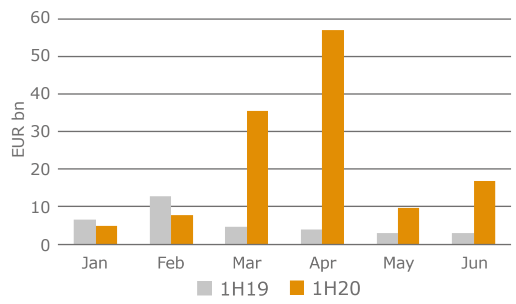
> FIGURE 2: SPREAD DEVELOPMENT TEN LARGEST COVERED BOND MARKETS BETWEEN SEP '19 AND AUG '20



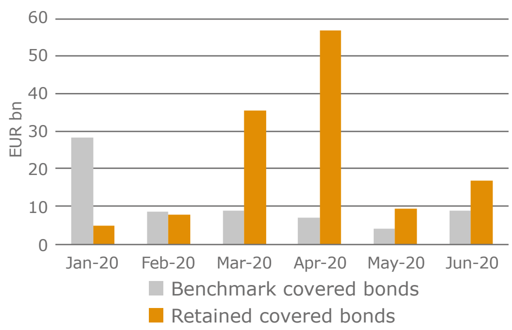
Source: Markit iBoxx, UniCredit Research

The series of policy measures in response to Covid-19, especially the recalibration of TLTRO III conditions in April 2020, had also a strong effect on covered bond supply. While in January 2020 banks were very active placing new benchmark covered bonds in the market, new supply slowed down significantly from February onwards due to the emerging pandemic. However, while the volume of publicly placed covered bonds declined, the amount of retained covered bonds increased strongly. While the first two months in 2020 showed only moderate volumes of retained covered bonds, momentum increased in March and especially in April. In these two months, almost EUR 90 bn of retained covered bonds were issued and until the end of June, the volume of retained covered bonds amounted to around EUR 130 bn. The key drivers behind this development were the benign conditions for banks to use monetary policy measures like the TLTRO III or the reduction in temporary collateral-easing measures for the ECB's repo operations. Thus, banks increasingly issued retained covered bonds and used them as collateral in repo transactions, which was reflected in the large volumes of TLTRO III take-ups by banks in June 2020.

> FIGURE 3: RETAINED COVERED BOND SUPPLY JAN '20 TO JUN '20 (EURO-DENOMINATED >EUR 50MN)



> FIGURE 4: PUBLICLY PLACED BENCHMARK VOLUME VERSUS RETAINED COVERED BONDS



Source: Bloomberg, UniCredit Research

THE ECB POLICY MEASURES IN DETAIL

COVERED BOND PURCHASE PROGRAMME 3

Covered bond purchase programmes have been part of the European covered bond market for many years. The first purchase programme (CBPP1) was launched in 2009, followed by CBPP2 in 2011 and CBPP3 in 2014. While the first two programmes ran for about one year each, the third programme is still in place and has been adjusted several times: net-purchase phase from October 2014 to December 2018, reinvestment phase from January to October 2019, new net-purchase phase since November 2019 (CBPP3.1) and a temporary additional increase from March 2020 until year-end. Reacting to the Covid-19 crisis, an additional asset purchase programme, the Pandemic Emergency Purchase Programme (PEPP), was announced.

From reinvestment phase …

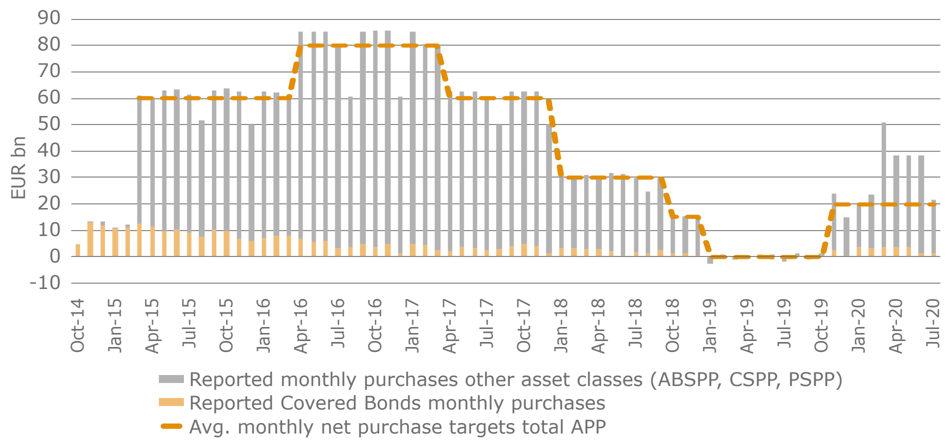
On 13 December 2018, the Governing Council of the European Central Bank (ECB) decided to end the net purchases under the APP in December 2018 and announced that it "intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when it starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation". The reinvestment phase started in January 2019 and lasted until the end of October 2019. During this period, the Eurosystem fully reinvested the principal payments from maturing securities held in the APP portfolios in order to maintain the size of cumulative net purchases under each constituent programme of the APP, e.g. the CBPP3, at the level attained at the end of December 2018. The holdings of the CBPP3 as of year-end 2018 were EUR 262.2 bn. Market capitalisation continued to be the guiding principle for reinvestment purchases of covered bonds and purchases of securities in primary markets continued to be permitted as necessary. During the reinvestment phase, the amount of reported redemptions of covered bonds held by the Eurosystem totalled EUR 19.6 bn.

Given reinvestments of EUR 18.1 bn during this period, the holdings of the CBPP3 as of end-October 2019, the end of the reinvestment phase, were EUR 260.5 bn.

... to the relaunch of asset purchases

In September 2019, the ECB announced, as part of a package of stimulus measures, to restart net purchases under the Governing Council's asset purchase programme (APP) at a monthly pace of EUR 20 bn as from 1 November 2019. The Governing Council expects purchases to run for as long as necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key ECB interest rates. On 12 March 2020 the ECB Governing Council decided to add "a temporary envelope of additional net asset purchases of EUR 120 bn" until the end of 2020.

> FIGURE 5: AVERAGE MONTHLY NET PURCHASES (OCTOBER 2014 TO JULY 2020)



Source: ECB UniCredit Research

> FIGURE 6: KEY CBPP CRITERIA IN COMPARISON

	CBPP1	CBPP2	CBPP3		
			(Net purchase phase)	(Reinvestment phase)	(Restarted net purchase phase)
Programme size	EUR 60 bn	EUR 40 bn	Not specified	Unchanged	Unchanged
Purchase period	7/2009 to 6/2010	11/2011 to 10/2012	10/2014 to 12/2018	1/2019 to 10/2019	Ongoing since 11/2019 (no fix end-date announced)
Amount purchased	EUR 60 bn	EUR 16.4 bn	EUR 262.2 bn as of 12/31/2019	Reinvestment of maturing CBPP-holdings	EUR 23.2 bn as of end-July 2020
Bond size	EUR 500 mn or above as a rule and in any case not lower than EUR 100 mn	EUR 300 mn or above	Not specified	Unchanged	Unchanged
Minimum rating	AA as a rule and in any case not lower than BBB-	BBB-	BBB- (special criteria for Cyprus and Greece)	Unchanged	Unchanged

	CBPP1	CBPP2	CBPP3		
Residual maturity	Not specified but focus on 3Y-7Y	Maximum 10.5Y	Not specified	Unchanged	Unchanged
Underlying assets	Exposure to private and/or public entities	Exposure to private and/or public entities	Exposure to private and/or public entities	Unchanged	Unchanged
Retained issues	Not eligible	Not eligible	Eligible	Unchanged	Unchanged
Restrictions on redemption format	Not specified	Not specified	At least Credit Quality Step 3 rating of issuer in case of Conditional Pass-Through structures (as of February 2018)	CPT-structures excluded in re-investment phase	CPT-structures excluded
Limit per ISIN	Not specified	Not specified	70% joint limit of CBPP 1, 2 and 3	Unchanged	Unchanged

Source: ECB, UniCredit Research

A key difference since January 2019 compared to the previous phases of the CBPP3 (from October 2014 to December 2018) is the eligibility of conditional pass-through (CPT) covered bonds. In December 2018, the Governing Council decided to exclude conditional pass-through covered bonds from purchases under the CBPP3, as of the end of the net purchase phase. The decision reflects their somewhat more complex structure, whereby some pre-defined events may lead to an extension of a bond's maturity and to a switch in the payment structure, according to the ECB.

As of 31 July 2020, the ECB reported covered bond holdings of EUR 283.97 bn under the CBPP3 at amortised cost, deriving from primary market (37.7%) and secondary market sources (62.3%). In addition, the remaining holdings from terminated covered bond purchase programmes were reported as EUR 0.5 bn under the CBPP1 and EUR 2.8 bn under the CBPP2.

THE TLTRO-III

The pre-pandemic TLTRO-III terms

On 7 March 2019 the ECB announced the start of a new series of TLTROs (TLTRO-III), to preserve favourable bank lending conditions and to support the return of inflation rates to a level of below but close to 2% in the medium term. The seven TLTRO-III operations are being conducted on a quarterly basis from September 2019 through to March 2021. Under the original terms each tranche had a maturity of two years, without a voluntary early repayment option. This compared with a four-year maturity of the TLTRO-II tranches, where banks could start repaying their drawings after two years. Banks were entitled to borrow 30% of their stock of eligible loans on 28 February 2019, reduced by the TLTRO-II amounts still outstanding. Only loans to the non-financial private sector are eligible, except for loans to households for house purchases. To avoid an excessive concentration of bids in a few operations the amount borrowed under each operation was maximized at 10% of the eligible loan amount. The rate on the TLTRO-III tranches was initially set at 10bp above the average rate on the main refinancing operations (MRO) over the life of each operation, or as low as the average deposit facility rate (DFR) plus 10bp if banks exceed the 2.5% lending benchmark between the end of March 2019 and end of March 2021. The benchmark lending is 0 for banks with positive net lending in the 12 months to 31 March 2019 and equal to the eligible net lending in this period for banks with negative net lending. However, the 10bp add-on was removed by the ECB in September 2019 just ahead of the first TLTRO-III operation. At the same time, the term of the TLTRO-III operations was lengthened from two to three years, while banks were given the option to early repay their drawings on a quarterly basis after two years.

> Figure 7: The evolution of the TLTRO-III terms

Decision date	22-Jul-'19	12-Sep-'19	12-Mar-'20	30-Apr-'20
Number of tranches Dates Frequency	Seven Sep '19 - Mar '21 Quarterly	Seven Sep '19 - Mar '21 Quarterly	Seven Sep '19 - Mar '21 Quarterly	Seven Sep '19 - Mar '21 Quarterly
Term to maturity Voluntary repayment option	2yr No	3yr After 2yr Quarterly	3yr After 1yr per Sep '21 Quarterly	3yr After 1yr per Sep '21 Quarterly
Borrowing allowance Maximum per tranche Eligible loans cut of date	30% 10% 28 Feb '19	30% 10% 28 Feb '19	50% - 28 Feb '19	50% - 28 Feb '19
Interest rate Max Min	Average for term MRO rate + 10bp DFR + 10bp	Average for term MRO rate DFR		Rest of life MRO rate DFR
Lending target for min rate Benchmark reference Lending benchmark period	2.50% 12m to 31 Mar '19 31 Mar '19 - 31 Mar '21	2.50% 12m to 31 Mar '19 31 Mar '19 - 31 Mar '21		1.15% 12m to 31 Mar '19 31 Mar '19 - 31 Mar '21
Special interest rate period Max Min Lending target for min rate Special reference period			23 Jun '20 - 24 Jun '21 MRO rate -25bp DFR -25bp 0% 1 Apr '20 - 31 Mar '21	23 Jun '20 - 24 Jun '21 MRO rate -50bp DFR -50bp 0% 1 Mar '20 - 31 Mar '21

Source: ECB, ING

The eased TLTRO-III terms in light of the Covid-19 crisis

After the outbreak of the coronavirus pandemic it has been key for the ECB to ensure that banks would maintain access to sufficient liquidity, allowing them to continue to grant loans to corporates and households to soften the economic impact of the crisis. On 12 March 2020, the ECB introduced a special interest period from 24 June 2020 until 23 June 2021 for all the TLTRO-III operations outstanding. During this period, the interest rate on the TLTRO-III operations was reduced to 25bp below the MRO rate, or 25bp below the DFR for banks that were able to keep their credit provisioning at least stable. To this purpose, the lending performance threshold was reduced from 2.5% to 0% for a special reference period between 1 April 2020 and 31 March 2021. The maximum amount banks could draw under the TLTRO operations was increased from 30% to 50% of their eligible loan stock on 28 February 2019, while the 10% bid limit was removed.

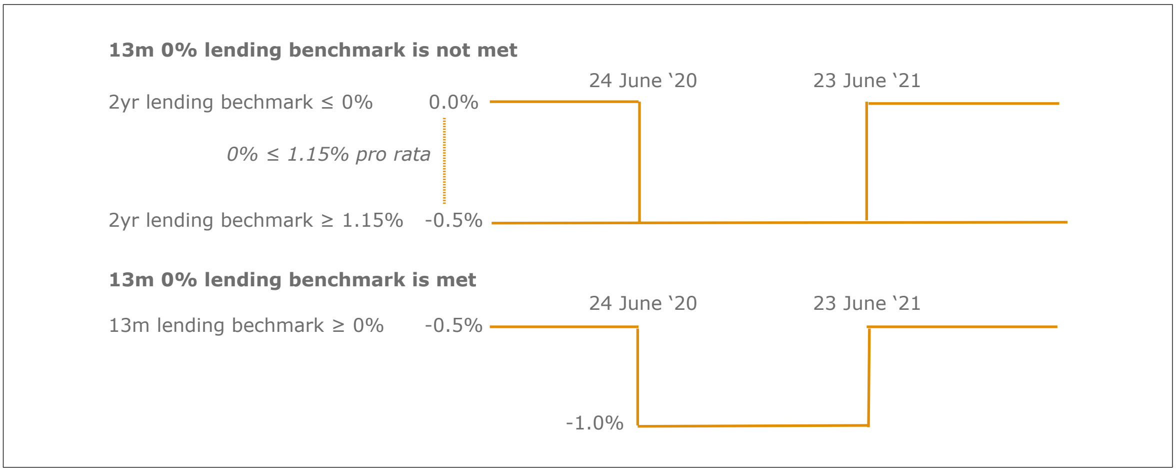
Box 1: The ECB's policy actions in response to the Covid-19 crisis:

1) **12 March 2020** – The ECB eases the conditions for the TLTRO-III operations, while announcing that it would temporarily conduct additional longer-term refinancing operations (LTROs) maturing in June 2020. The ECB also adds the temporary EUR 120 bn envelope to its net APP purchases until the end of 2020, alongside measures to provide banks with temporary capital and operational relief.
2) **18 March 2020** – The ECB announces the EUR 750 bn pandemic emergency purchase programme (PEPP).
3) **7 April 2020** – The ECB adopts a package of temporary collateral easing measures, to remain in place until September 2021.
4) **22 April 2020** – The ECB takes temporary measures to mitigate the impact of rating downgrades on collateral availability.
5) **30 April 2020** – The ECB announces a new series of seven pandemic emergency longer-term refinancing operations (PELTROs) running to September 2021.
6) **4 June 2020** – The ECB increases the envelope for the PEPP by EUR 600 bn to EUR 1,350 bn. The purchase horizon is extended to at least the end of June 2021.

On 30 April, the TLTRO-III conditions were further eased. During the special interest rate period, the interest rate on the TLTRO-III operations was reduced to 50bp below the average MRO rate, or to 50bp below the average DFR (or in any case not higher than -1%) for counterparties meeting the applicable 0% lending performance threshold. To capture the lending growth in the first month of the Covid-19 crisis in March, the cut-off date for the lending threshold was brought forward by one month to 1 March 2020, while the end of the special reference period was kept unchanged at 31 March 2021.

For banks that do not reach the 0% lending threshold during the special reference period, the interest rate will be more or less based upon the original TLTRO-III terms. The lending development will be evaluated over the period between 1 April 2019 and 31 March 2021 but against a lending threshold of 1.15% (down from the original 2.5%). During the special interest rate period the interest rate for these banks will not be higher than 50bp below the average MRO rate. This applies to all TLTRO-III operations.

> Figure 8: Lending benchmarks and the TLTRO-III rates at a DFR of -0.5% and MRO of 0%



Source: ECB, ING

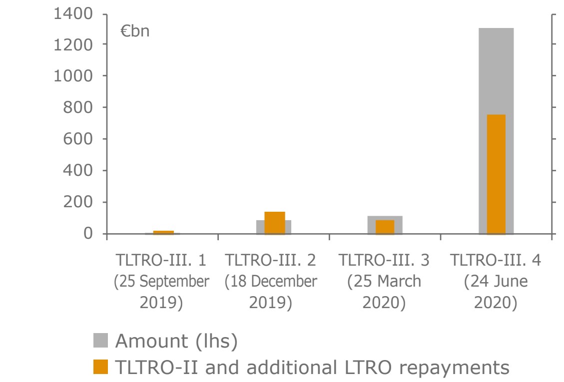
The PELTRO backstop

From 19 May 2020 to 1 December 2020, the ECB is also conducting seven **series of non-targeted pandemic emergency longer-term refinancing operations (PELTROs)** virtually on a monthly basis. The PELTROs grant mortgage banks, that do not qualify for the TLTRO lending benchmark, access to longer term liquidity at favourable conditions. The PELTRO tranches mature between July and September 2021 and have decreasing tenors from 16 to 8 months. The first three tranches expire in July 2021, the subsequent two in August 2021 and the final two in September 2021. The interest rate is 25bp below the average MRO rate over the life of each PELTRO.

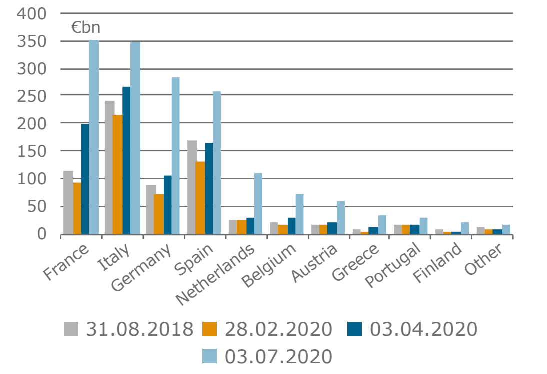
The TLTRO drawings

In June 2020, Eurozone banks attracted an unprecedentedly high amount of EUR 1,308 bn under the TLTRO-III.4 operation across 742 bidders. Banks emphatically seized the opportunity to benefit for a period of 1yr of a rate potentially as low as -1%, supported by the increased borrowing allowance and the extra collateral availability as a consequence of the temporary easings of the ECB collateral rules. Besides, aggregate country lending statistics indicate that most European banking sectors were already well positioned to meet the 0% lending growth benchmark based upon the lending growth seen since the beginning of March 2020. The realised lending growth may obviously still look different at the end of the special reference period by 31 March 2021.

> FIGURE 9: THE JUNE TLTRO-III DRAWINGS WERE SUBSTANTIAL



> FIGURE 10: (T)LTRO BALANCES PER COUNTRY



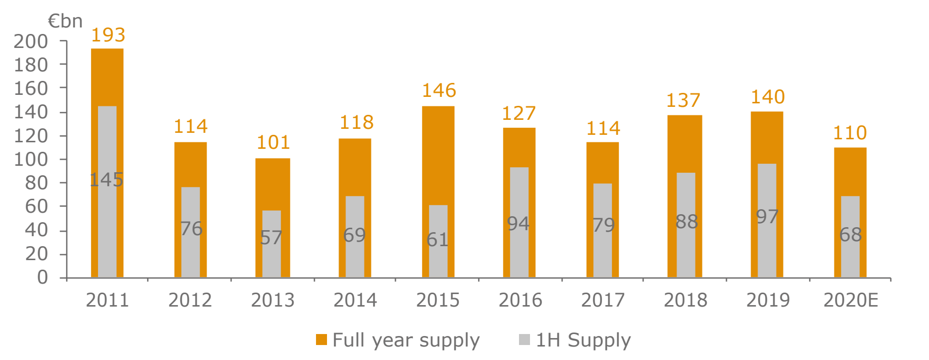
Source: ECB, ING

The TLTRO-III.4 drawings exceeded the June TLTRO-II and additional LTRO repayments by EUR 548 bn. The total drawings under the first four TLTRO-III operations aggregate to EUR 1,524 bn, with a modest amount of EUR 47 bn in TLTRO-II debt left to be repaid. Particularly the French banks have significantly increased their (T)LTRO drawings since the start of the Covid-19 crisis.

The impact on covered bond supply

The substantial use by banks of central bank liquidity has been supply negative for covered bonds. In the first half of this year, EUR benchmark covered bond supply fell almost EUR 30 bn short of last year's 1H equivalent. Similar issuance as the second half of 2019 could see covered bond supply end the year 2020 at EUR 110 bn. Besides, the ultimate implications of the Covid-19 crisis on housing market conditions is still uncertain. The economic slowdown and potential increase in unemployment rates may soften housing market conditions and mortgage lending growth across the globe, which could reduce covered bond supply further. The sizeable drawings of central bank liquidity have also led to an increased use of retained covered bonds as collateral. This encumbers eligible assets, no longer available for issuance in the public domain.

> FIGURE 11: TOTAL EUR BENCHMARK COVERED BOND SUPPLY



Source: ING

COVERED BONDS AS COLLATERAL IN REPO TRANSACTIONS WITH THE ECB

Covered bonds are often regarded as central bank-eligible by central banks

For credit institutions, the provision of collateral is generally an important criterion when obtaining liquidity or borrowing from the central banks entrusted with monetary policy. In this context, central banks also attach great importance to covered bonds. For example, covered bonds are also included as eligible assets within the ECB Collateral Framework and, in the borrowing process, they can be posted as collateral with the ECB if the relevant criteria are met. The section below presents the requirements for the eligibility of covered bonds from the ECB's viewpoint. As a result of the corona crisis, a number of central banks have been compelled to make temporary adjustments to their collateral frameworks. These adjustments also have a substantial impact on the eligibility of covered bonds. In light of this, the ECB has reduced the required valuation haircuts for eligible assets as a whole (and consequently also for covered bonds).

European Central Bank (ECB) – ECB Guideline (EU) 2015/510

The requirements with regard to assets eligible for ECB Collateral Management are documented extensively and in detail. They are generally laid down in Guideline (EU) 2015/510, which has been amended by various other guidelines in recent years. The key requirements can also be found in the eligibility criteria for marketable assets and/or in the General framework, which are supplemented by the Temporary frameworks. Covered bonds play an important role in Eurosystem's collateral framework, not least because of the comparatively low risk associated with covered bonds. Covered bonds can also, under certain conditions, benefit from a privileged position over other bonds in the context of collateral eligibility in the Eurosystem.

Categorisation of covered bonds

According to ECB Guideline (EU) 2015/510 Art. 2(12), covered bonds are debt instruments that have a dual recourse: (i) directly or indirectly to a credit institution; and (ii) to a dynamic cover pool of underlying assets, and for which there is no tranching of risk. The term includes jumbo covered bonds, Art. 2(48), and other covered bonds including multi cédulas, Art. 2(71), (62). The above-mentioned forms of covered bonds are defined as follows: 'jumbo covered bonds', cf. Art. 2(48), means covered bonds issued in accordance with the requirements in Article 52(4) of Directive 2009/65/EC of the European Parliament and of the Council, and with an issuing volume of at least EUR 1 bn, for which at least three market-makers provide regular bid and ask quotes. 'Multi cédulas' (Art. 2(71), (62)) refers to debt instruments issued by specific Spanish SPVs (Fondo de Titulización de Activos, FTA) enabling a certain number of small-sized single cédulas (Spanish covered bonds) from several originators to be pooled together. There are also 'other covered bonds', which refers to multi cédulas and 'structured covered bonds'. This means a covered bond, with the exception of multi cédulas, which is not issued in accordance with the requirements of Article 52(4) of Directive 2009/65/EC of the European Parliament and of the Council. Lastly, the Guideline defines 'UCITS compliant covered bonds', i.e. covered bonds issued in accordance with the requirements of Article 52(4) of Directive 2009/65/EC.

ECB criteria allow for a wide range of international covered bonds

In general, central bank eligibility applies to investment-grade covered bonds denominated in euros from the EEA. The currencies USD, GBP and JPY are added to this specification on the basis of the above-mentioned Temporary Guidelines of the ECB. In addition, as a softening of the EEA restriction, covered bonds from G10 jurisdictions (e.g. Canada) may also be lodged as collateral. With regard to the category "Settlement / handling procedures", the ECB requires deposit in book form with one of the national central banks or with one of the admissible Security Settlement Systems (SSS). Haircuts are applied in relation to collateral eligibility and the daily determination of the lending value in accordance with the pool procedure.

Haircut categories and covered bonds

Specific haircuts also apply to covered bonds. In particular, a distinction must be made in this respect between the various haircut categories. The different categories of covered bonds (jumbo covered bonds, covered bonds, other covered bonds) are also included in this. The relevant wording has additionally been adapted recently in the ECB/2019/12 amendment. The specific haircuts are then derived in conjunction with the underlying coupon (fixed, floating or zero coupon) and the Credit Quality Step (CQS) as defined in the Eurosystem's harmonised rating scale. In general, covered bonds issued in jumbo format are assigned to Haircut Category II, while all other covered bonds are assigned to Haircut Category III. Particularly for CPT covered bonds of credit quality step 3, i.e. covered bonds usually issued by an entity with a non-investment grade rating, comparatively higher nominal haircuts are applied to the collateral eligibility as a result of the adjustments described above.

External ratings: ECB imposes transparency requirements

External ratings are of major importance for covered bonds that are pledged. Rating agencies must, for example, fulfil specific disclosure obligations for the covered bonds they assess, for reasons including maintaining repo eligibility. In addition, the ECB has adjusted the criteria for own-use covered bonds in such a way that an external rating is also required for these securities since 1 February 2020.

Valuation haircuts and obligation to provide evidence for own-use covered bonds

Additional haircuts apply to own-use covered bonds. For example, CQS 1 and 2 issues are subject to a haircut of 8% (CQS 3 securities: 12%). Adjustments to the haircuts also apply to own-use soft bullet or CPT covered bonds. During the eligibility process, for example, the extended maturity of the instrument is used rather than the originally scheduled maturity. This means that, in case of a soft bullet structure, the maturity would normally have to be extended by one year, while all CPT structures fall within the ">10 years" maturities range due to the theoretically very long extension period. In addition, covered bond issuers are required to provide evidence relating to the lodging of self-issued government-guaranteed bonds. Accordingly, banks must (be able to) prove that the cover pools do not contain any government-guaranteed unsecured bank bonds issued by themselves (or by a related issuer). In this respect, it is quite conceivable that the use of self-issued government-guaranteed bank bonds is already excluded by national legislation or in the published Covered Bond Prospectus. In the amendments to Guideline (EU) 2015/510 of 08 February 2018 (ECB/2018/3), the ECB provides additional options for issuers to provide evidence (see also the newly added paragraphs 3 and 4 in Article 139, ECB/2018/3). These include regular surveillance or performance reports by the issuer, self-certification by the CEO, CFO or other high-ranking decision-makers, or ex-post confirmation by external auditors or trustees.

Corona crisis: temporary adjustments to haircuts until September 2021

On 07 April 2020, the ECB announced extensive temporary adjustments to the Collateral Framework to mitigate potential liquidity strains on the financial markets of the single currency area. It is our understanding that, while no covered bond-specific adjustments have been made, the scope of eligible collateral in the form of covered bonds is increased, particularly by the reduced collateral haircuts. For example, the temporary adjustment provides for a general 20% reduction in collateral haircuts until September 2021.

Corona crisis: grandfathering with regard to rating assessments until September 2021

Having introduced a temporary reduction in the applicable haircuts as early as 07 April, the ECB went another step further on 22 April by adjusting its rating requirements for collateral. Accordingly, collateral that has fulfilled all the requirements as required on 07 April, including an investment grade rating, may continue to be eligible for repo transactions if its rating is at least equivalent to credit quality step 5 of the Eurosystem's harmonised rating scale (see table above). This would imply that covered bonds that were eligible for repo transactions on 07 April, and subsequently slip into non-investment grade by up to two notches, would still be recognised as collateral at the ECB. Incidentally, this also applies to new issues placed under a corresponding programme.

Corona crisis: implications for covered bonds

This implies that the haircut for "own-use" covered bonds is also reduced by 20%. These adjustments produce a collateral haircut of 8% for an "own-use" covered bond of collateral category III (UCITS compliant covered bond; <EUR 1 bn), denominated in euro, with variable interest rate and assigned CQS1 or CQS2, assuming a maturity of five years. Without the temporary adjustment, which was announced on 07 April 2020 and applies temporarily until September 2021, the collateral haircut would be 10%.

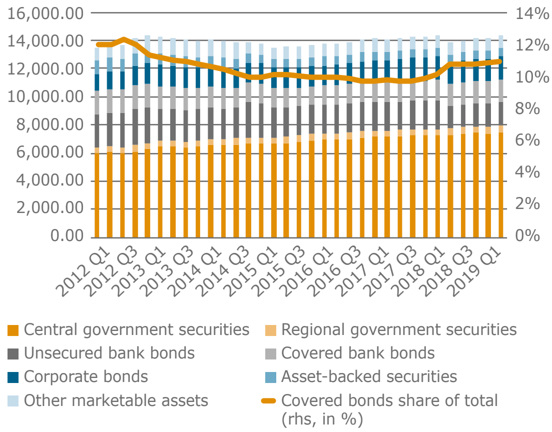
ECB itself quite transparent: database for eligible assets

The ECB provides information relating to the list of eligible collateral on its website. It is possible to access the entire database as well as the changes compared to the previous working day in the Download area. It is also possible to query whether a security is approved as collateral. As at 31 May 2020, the database contained 24,949 securities. Of these, 3,982 were classified as covered bonds (3,535 traditional, 362 jumbo, 72 structured and 13 multicédula covered bonds). It should be noted, however, that this list is merely a list of the central bank eligibility registered at the ECB. This means, firstly, that bonds not listed here may still also be eligible. Secondly, the listing does not necessarily imply use as collateral. The ECB publishes aggregated data that provides information on both, eligible assets and use of collateral. According to these official statistics, covered bonds accounted for 11% (EUR 1,561 bn) of total eligible assets (EUR 14,296 bn) in the first quarter of 2020.

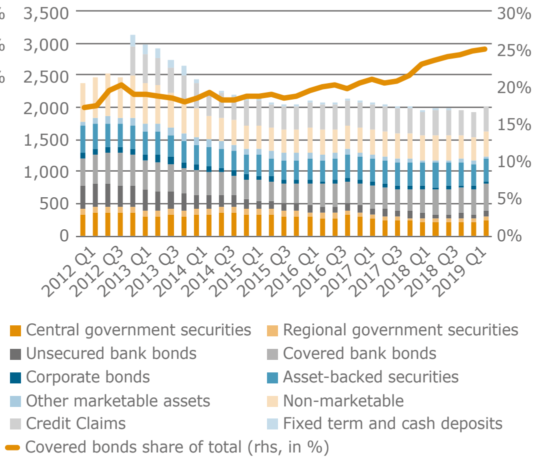
EUR benchmarks not generally classifiable as eligible assets

With regard to use of collateral (EUR 1,636 bn), covered bonds account for 25% (EUR 408 bn). In 2008, eligible assets (EUR 1,248 bn) and use of collateral (EUR 174 bn) each accounted for an 11% share, which rose to 12% (EUR 1,537 bn) and 16% (EUR 288 bn), respectively, in 2011. The data also reveals that, applying the above criteria, ECB eligibility cannot necessarily be assumed for bonds issued as EUR benchmarks and included in iBoxx EUR Covered. Due to the restriction to the EEA (Guideline (EU) 2015/510) and the additional eligibility of G10 issues (Temporary framework), EUR benchmarks of Canadian issuers, for example, can in principle be used as collateral. In contrast, the EUR benchmark of Korea's KHFC cannot be classified as ECB-eligible. The same applies to bonds from Australia, New Zealand and Singapore, among others, and the RMBS-based benchmarks from Japan's Sumitomo Finance Corporation.

> Figure 12: ECB: composition of eligible assets (EUR bn)



> Figure 13: ECB: composition of use of collateral (EUR bn)



Source: ECB, NORD/LB Fixed Income & Macro Research

1.3 LIQUIDITY AND TRADING VOLUME IN THE EU COVERED BOND MARKETS

By Joost Beaumont, Chairman of the ECBC Statistics & Data Working Group, ABN AMRO Bank,
Jonny Sylvén, Association of Swedish Covered Bond Issuers (ASCB),
Lars Ravn Knudsen, Finance Denmark, Steffen Dahmer, Chairman of the ECBC Market
Related Issues Working Group, JP Morgan and Michael Weigerding, Commerzbank

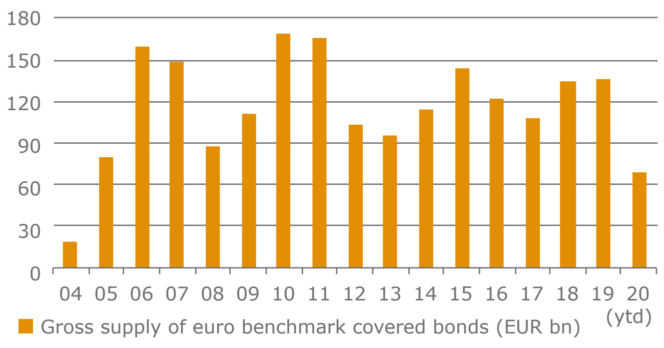
INTRODUCTION

The international covered bond benchmark segment, which started as an interbanking market-making (head to head) market in the 90s, transformed during the crisis into a pure client (investor) market-making market. A functional repo market constantly increases the liquidity of the Covered Bond market, as a consequence of which the Covered Bond benchmark market is one of the most significant and liquid market segments. Covered bonds are viewed in different ways: thanks to their nature and rating some view them as part of the rates world, others clearly see credit elements and consider Covered Bonds as the strongest product in the credit world.

As is the case for any other market in the rates or credit world, the Covered Bond market faces regulatory requirements which result in a more prudent approach to trading books in terms of balance sheet allocation. In short, bank inventories have gone down and often only axed trading books are able and willing to show competitive prices and sizes to investors.

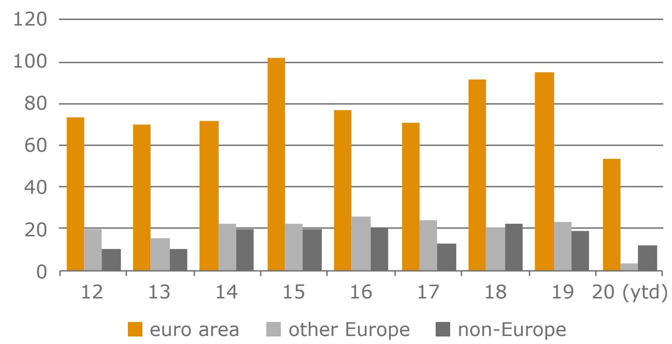
We continue to see the trend that EUR 500mn is becoming more and more the standard benchmark size for issuers, although issuers with larger annual funding appetites still favour a EUR 1bn deal or larger. In other markets such as GBP the majority of benchmark deals has recently shifted to deals with larger sizes (minimum of GBP 1bn), up from GBP 500-750mn before. Meanwhile, in USD's the "regS only" market often targets 600mn (to match the regulatory important 500mn + EUR equivalent) while 144a or SEC registered deals are often larger than/or at least USD 1bn. The Swedish or Danish Kroner Covered benchmarks can grow over time to a significant size often larger than in Euro or Dollar benchmarks. Obviously smaller benchmark volumes often lead to smaller secondary turnovers given that the various Covered Bond markets are dominated by a majority of buy and hold investors. Furthermore, redemptions were rather high between 2013 and 2017, resulting in negative net supply. From 2014, the shrinkage of the covered bond market was also aggravated by the covered bond purchases of the Eurosystem. The trend turned in 2018 and 2019, when net supply was positive, but in 2020 the market is likely to shrink again, as the large take-up in the TLTRO-III will slow down issuance, while redemptions will again be sizeable this year.

> Figure 1: Gross supply of euro benchmark covered bonds (EUR bn)



Source: Bloomberg, ABN AMRO

> Figure 2: Gross supply of euro benchmark covered bonds by region (EUR bn)

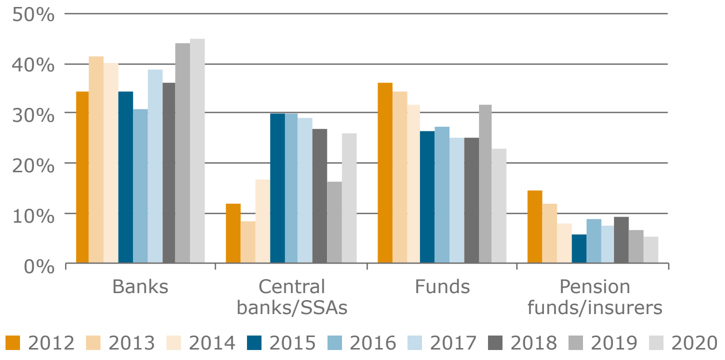


Source: Bloomberg, ABN AMRO

In summary, lower net supply, new deal size developments, a change of regulatory requirements and the nature of the investor base have a direct impact on secondary liquidity. Gross supply of euro benchmark covered bonds clearly increased up to 2015, after it slowed down in 2016 and 2017, before rising strongly again in 2018 and 2019. Gross issuance started to pick up in 2014, supported by an increase in both the number of new issuers as well as a rise in the amounts issued from jurisdictions outside the euro area. Indeed, issuance from non-EU banks has roughly doubled to around EUR 20bn per year since 2013, reflecting the ongoing globalisation of the covered bond asset class. Still, issuers located in the euro area are responsible for the bulk of covered bond supply, with annual changes in issuance largely related to ECB policy actions and the amount of redemptions. In 2015, covered bond issuance was for instance boosted by the start of the Eurosystem's covered bond purchases under CBPP3 in Q42014. However, the impact on net supply was marginal given that most of the increase in issuance was offset by primary allocations to the Eurosystem (which is a buy and hold investor). Furthermore, issuance was negatively affected in 2016 when banks could borrow cheaply at the ECB via the TLTRO-II. However, new supply of covered bonds from the euro area was relatively large in 2018 and 2019, when CBPP3 purchases were reduced. At the same time, non-EU banks also increased their presence in the primary market in 2018 and 2019, Canadian banks in particular. As a result, net supply was firmly positive in the past two years. So far in 2020, issuance has slowed down since the outbreak of the Covid-19 pandemic, while banks have borrowed a record amount in the ECB's TLTRO-III operations. This does not bode well for issuance going forward in 2020. At the same time, the ECB has started additional QE programmes (see chapter 2), implying that it has stepped up covered bond purchases. On balance, the market is likely to shrink again in 2020, not supporting liquidity conditions.

Let us again look at the evolution of the investor base as an angle for liquidity. If the share of buy-and-hold investors has risen in the past few years, this should have reduced liquidity of covered bonds. The graph below shows the average allocation share per investor type in new euro benchmark deals. The graph clearly illustrates the crowding out impact of CBPP3. The share of central banks/SSAs has risen sharply, actually quadrupling from around 8% in 2013 to around 30% during 2014-2018. This has come at the expense of other investors, such as banks, asset managers and institutional investors. However, asset managers have seen the biggest drop in their share. As these can be regarded as the most active portfolio managers, it seems fair to conclude that the change in the investor base in recent years has not supported liquidity of covered bonds. Although asset managers returned to the covered bond market in 2019 when the central bank reduced its presence, this picture has reversed again in 2020 due to the restart and step-up of QE. The participation of banks in new deals has remained at steady levels, reflecting that covered bonds are an attractive asset class in LCR portfolios. Unfortunately, most banks are buy-and-hold investors, so this does not support liquidity in the end.

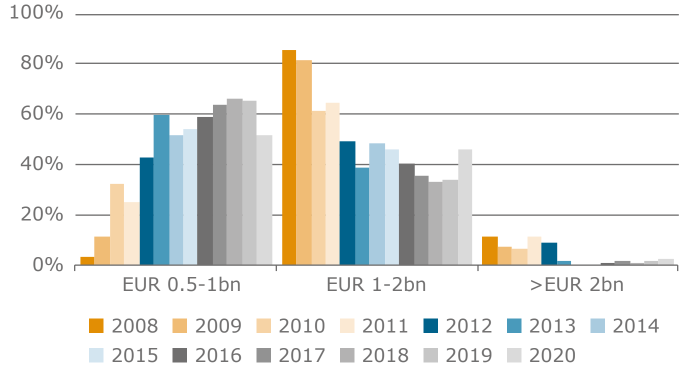
> Figure 3: Average allocation share by investor type in new issuance of euro benchmark covered bonds



Source: Bloomberg, ABN AMRO

Finally, the larger the issue size, the better the liquidity. But also in this respect, it seems that recent developments point in the direction of reduced liquidity. The graph below depicts the share of new deals broken down by issue size. The share of deals with an issue size below EUR 1bn increased strongly in recent years. Whilst only 3% of the deals had a size smaller than EUR 1 bn in 2008, more than 60% of deals had such a size in the past few years. But, there is some bright spot in this respect, as the share of deals with a minimum size of EUR 1bn has risen in 2020. In the first half of 2020, roughly half of the new euro benchmarks had a size above EUR 1bn, which marks a break with the past. Still, the overall take is that liquidity has deteriorated rather than improved in recent years, but that the tide might be turning.

> Figure 4: Share of new euro benchmark covered bond deals, broken down by size



Source: Bloomberg, ABN AMRO

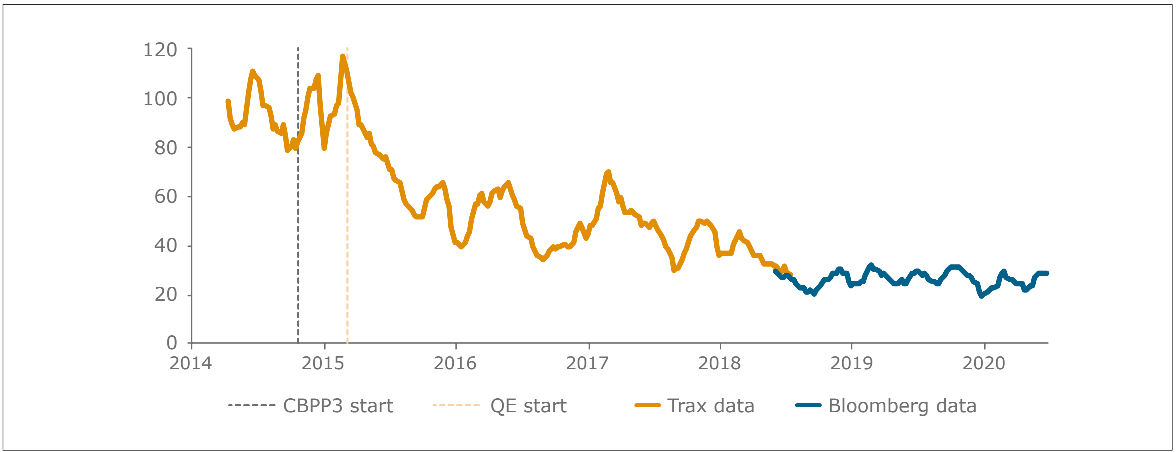
How much, how often and where? Secondary market trading in the euro covered bond market

Each time the covered bond segment came under general spread pressure in recent years, its (lack of) market liquidity came into the spotlight again. In view of the defensive stance taken by many market makers in general and the recent coronavirus crisis effects, it has become all the more difficult for investors to buy or sell larger positions in some segments, if required. But how has liquidity in the covered bond market developed over recent months in detail?

In order to gain a broader overview, we analyse the trading volumes that are aggregated by Bloomberg as part of MiFID reporting. After adjusting the data,[1] we can identify a total trading volume of around EUR 201bn for EUR benchmarks via Bloomberg for the 12-month period from April 2019 to March 2020. On a weekly average, this is just under EUR 4 bn or 0.4% of the outstanding volume. Moreover, as is well known, it is by no means unusual when even younger covered bonds fail to trade at all in individual weeks. Calculated across all benchmarks, we see this happening on average every third week. A glance at the ticket sizes confirms this assessment. Naturally, the number of transactions processed on stock exchanges significantly exceeds that of other sources. However, their volumes are usually negligible. If one excludes stock exchanges, there are around 111,000 transactions left between April 2019 and March 2020. Their average ticket size was only around EUR 2.5mn. This figure corresponds to the ballpark figure suggested by Trax data in the past and should therefore reflect the current state of the market quite well.

> Figure 5: Trading activity has stabilised on a relatively low level

Turnover of EUR benchmark covered bonds recorded by Bloomberg in accordance with MiFID rules or Trax, respectively, 8-week moving average of indexed turnover data (100 = H1-14)



Source: Bloomberg, Trax, Commerzbank Research

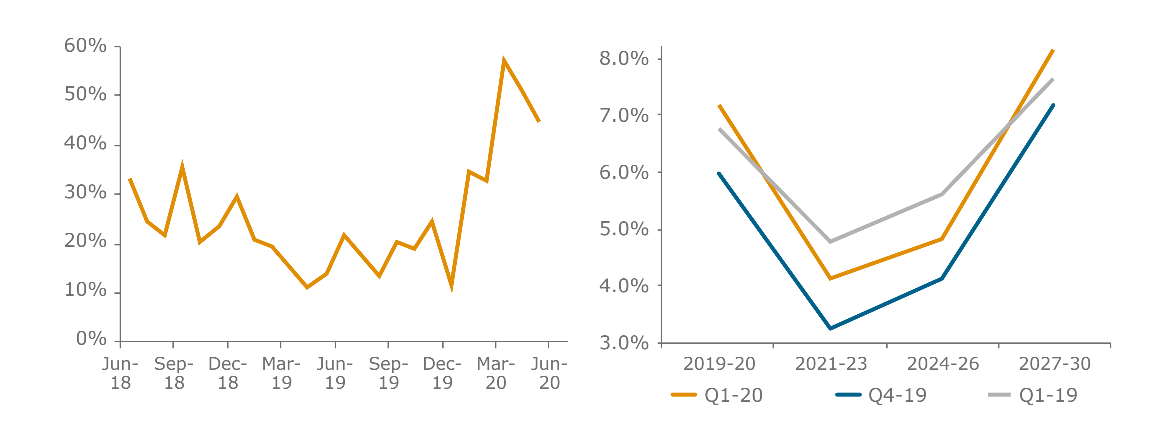
Over the last two to three years, these general trading activity ratios did not change markedly. This highlights the fact that liquidity in the covered bond market has stabilised over the last quarters, although at a relatively low level compared to the period before the ECB's CBPP3 set in. The coronavirus crisis, however, seems to pose another challenge to covered bond liquidity. A final assessment is difficult to make at this stage, but the crisis has clearly changed trading activity already. For instance, the estimated CBPP3's share of overall covered bond trading volume has surged in February and March. Around 50% of the trading volume of CBPP3-eligible benchmarks has been executed directly with the central bank according to our estimates. This is double the share seen before. One reason is of course the overall drop in trading activity due to the crisis: the turnover recorded by Bloomberg shrank by around a third in late March/early April. However, another reason is increased CBPP3 purchases, and the trades executed via the ECB's PEPP are not even considered in this calculation. As a result, the trading activity and liquidity left for other investors has dropped, and it is more concentrated on specific maturity buckets. When adjusting by the bond size, the turnover of 1-2y and 7-10y covered bonds

1 For example, we exclude the turnover reported by Deutsche Börse due to several discrepancies.

is almost double the number of other paper. This focus on the short and the long end has been present for a while but became more pronounced in Q1 2020.

> Figure 6 & 7: CBPP3 trades have clearly dominated the market during the early days of the coronavirus crisis, and most trading is focused on the very short and the long maturity buckets

Left: Estimated monthly CBPP3 share of CBPP3-eligible benchmark trading volume; right: turnover of EUR benchmark covered bonds by maturity bucket, in % of nominal



Source: Bloomberg, Commerzbank Research

Which factors influence trading volume?

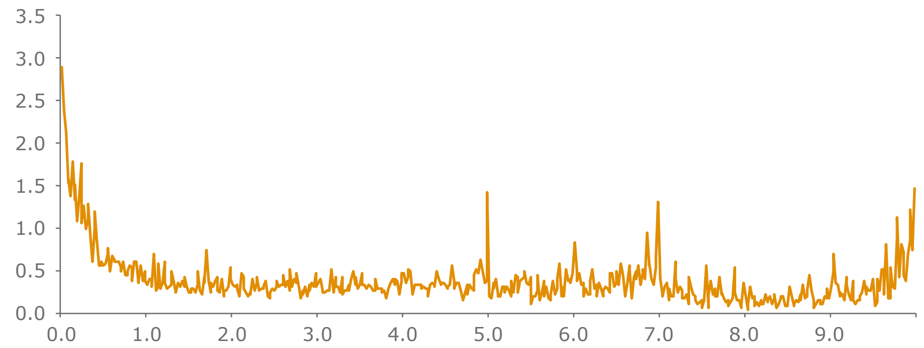
Whether the liquidity of a covered bond is high or low is not easy to determine. For one thing, market liquidity is difficult to measure. We therefore focus on trading volume here. Furthermore, there are naturally a number of different factors that influence the liquidity or trading volume of bonds – and these must be taken into account when comparing individual covered bonds. In addition to the age of a bond, its size and market risk, these include seasonal factors, the quality of its allocation, demand during book building and primary market supply. We have recently verified these liquidity drivers in three detailed studies.[2] Our dataset for the turnover recorded by Bloomberg between April 2019 and March 2020 confirms most findings there. For example, the average trading volume of a covered bond increases with its size. Trading volume grows at a slower pace though: the turnover of a EUR 1bn – EUR 1.24bn bond was roughly 75% higher in the mentioned period than that of a EUR 500mn – EUR 749mn issue. There is therefore no jumbo bonus with regard to liquidity.

However, by far the most important factor for the trading volume of a covered bond is its age. While switch trades, profit taking or follow-on purchases support the turnover, over time, volume increasingly seeps away due to buy-and-hold investors. Our data show that, on average, the weekly turnover falls below 1.0% of the outstanding volume after only one quarter. After one year this rate is only 0.35%, and in the long run it typically levels off between 0.2% and 0.3%. On the market as a whole, the turnover is likely to be higher, but the trend should be the same.

2 see How new bond issuance influences the liquidity of covered bonds. *The Journal of Fixed Income*, vol. 29 (2), pp. 44-60; Seasonal liquidity effects and their determinants on the covered bond market. *The Quarterly Review of Economics and Finance*, forthcoming; and *Liquidity drivers on the covered bond market*.

> FIGURE 8: LIQUIDITY FOLLOWS AN L-SHAPE: TURNOVER DROPS RAPIDLY WITHIN A FEW MONTHS

AVERAGE TRADING VOLUME OF A EUR BENCHMARK FROM APRIL 2019 TO MARCH 2020, BY AGE OF BOND IN YEARS, IN % OF THE NOMINAL OUTSTANDING



Source: Bloomberg, Commerzbank Research

To best compare covered bond turnover between individual bonds despite the high number of influencing factors, we convert the trading volumes to their shares of the nominal. In the following analysis, we also differentiate according to the issue date of the covered bond.

Which products had the highest trading activity?

Due to the dominant age effect, middle-aged covered bonds are most interesting for statements on fundamental liquidity trends, in our opinion. They represent the bulk of the outstanding volume, and while they reflect the medium-term turnover potential, they are not yet excessively dominated by buy-and-hold investors. They are therefore likely to be the focus of most investors. Consequently, we exclude bonds that were issued after December 2018 from our analysis.

If the trading volume of covered bonds issued between 2016 and 2018 is broken down by country of origin, we note a marked "headline effect": i.e. bonds that are (potentially) in the focus of the news tend to be traded more often. This fits well with the general rating effect of bond trading activity: bonds with lower ratings are generally traded more often because they can be used, for example, to convert market movements into returns more easily. Greek and Turkish covered bonds have therefore frequently appeared at the top of our previous trading volume overviews. The new data are in line with this. The trading activity of UK covered bonds is also likely to have been supported by the steady Brexit news flow. With a turnover of 26% of the outstanding volume, UK securities reached almost double the level of French or German covered bonds from April 2019 to March 2020.

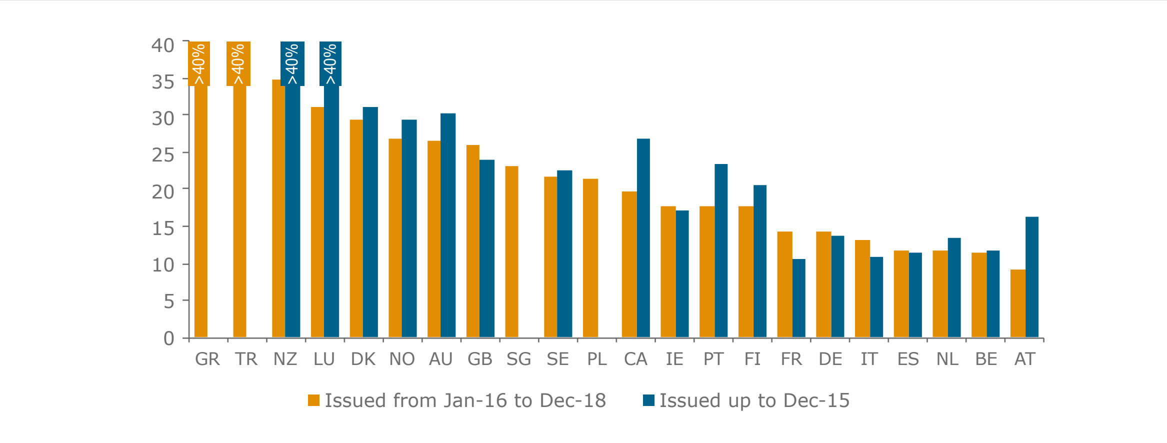
This, however, should not lead to the reverse conclusion that overseas markets such as Australia, New Zealand or Canada, which are also among the top traded segments, may be regarded by investors as risk products. In contrast to the UK, these covered bond segments have repeatedly attracted attention with high trading volumes in our turnover analyses of recent years, without these countries continuously 'hitting the headlines'. The relatively high trading activity in overseas products is therefore more likely to testify to solid intrinsic liquidity. This may be partly due to the absence of CBPP3 purchases in these countries, which are largely held to maturity.

In fact, our comparison clearly shows the trading activity gap between CBPP3-eligible segments and non-eligible ones, with the former featuring markedly higher overall turnover. And the chart does not yet account for the fact that a marked number of trades comes from the CBPP3 itself.

When measuring turnover in German and Austrian covered bonds, there could be some distortions since, due to data problems, we exclude transactions reported via Deutsche Börse. German market makers could therefore be slightly underrepresented in our database and the turnover of specific segments somewhat underestimated. However, the relevance of this should not be overstated. Rather, the relatively low trading volume in German covered bonds is more likely to be attributable to their lower yields, which make them less attractive to many active trading investors.

> FIGURE 9: TURNOVER RANKING BY PRODUCT INDICATES SOLID LIQUIDITY IN OVERSEAS MARKETS, BUT ALSO WEAKNESSES IN SOME SEGMENTS

TRADING VOLUME OF SELECTED COVERED BOND SEGMENTS FROM APRIL 2019 TO MARCH 2020, IN % OF NOMINAL VALUE



Spain without Multi Cédulas, source: Bloomberg, Commerzbank Research

It may come as a surprise to learn that Spain and Italy are so far behind in our ranking. Due to the weaker ratings and the various political headlines from the periphery, covered bonds in Spain and Italy could theoretically have been expected to be much more active. In part, the deviation is probably due to the low primary market activity in Spanish and Italian benchmarks. This is also depressing secondary market activity. In our opinion, however, the data also show the general liquidity weakness and one-sidedness of the market.

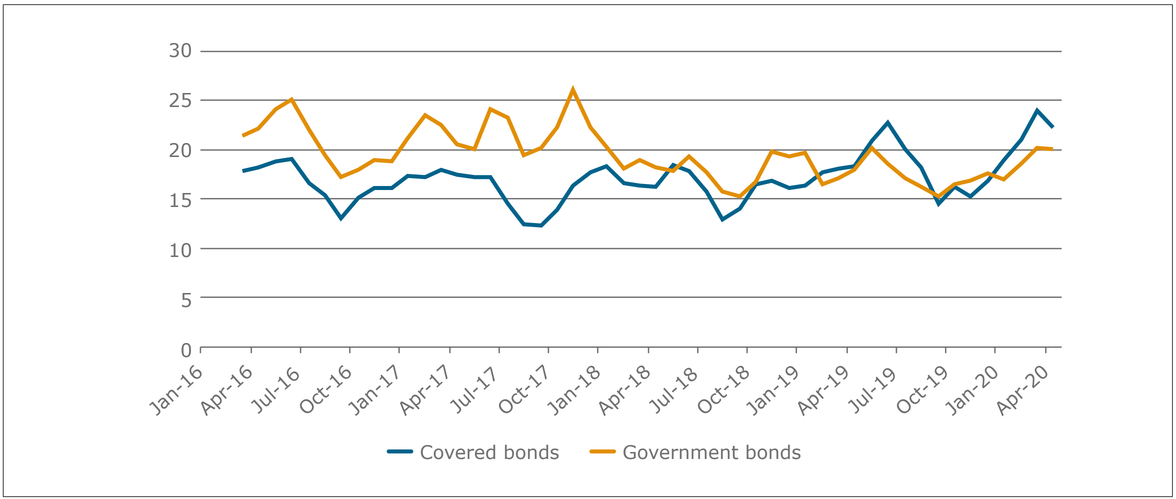
THE SWEDISH COVERED BOND MARKET

The Swedish domestic market for covered bonds is of great importance for the domestic capital market. Before Sweden implemented a law for covered bonds in 2004 a liquid market for mortgage bonds had been around since the beginning of the 80s. The outstanding volume of covered bonds in SEK was EUR 178,9 bn at year end 2019. That was more than twice as much as the outstanding volume of government bonds.

Swedish bond market investors appreciate liquidity. The large banks issue their covered bonds as benchmarks meaning large amounts are issued and that a number of dealers are contracted to show both bid and offer prices. Also, only benchmarks are deliverable in the future contracts. When a new benchmark-bond is issued, the issuers make sure that the amount issued meets the requirements for a benchmark sized deal. After the initial day of issuance, the issuer can, without further notice, issue "on tap". The benchmark bonds can amount to volumes of about SEK 60 bn. Sweden has a liquid and smoothly operating repo market with almost all banks and broker firms involved in the trading. The issuers offer their market makers a repo-facility in their own bonds. The repo transaction is viewed as a 'sell-buy back' or 'buy-sell back' deal and the ownership of the security has to be transferred.

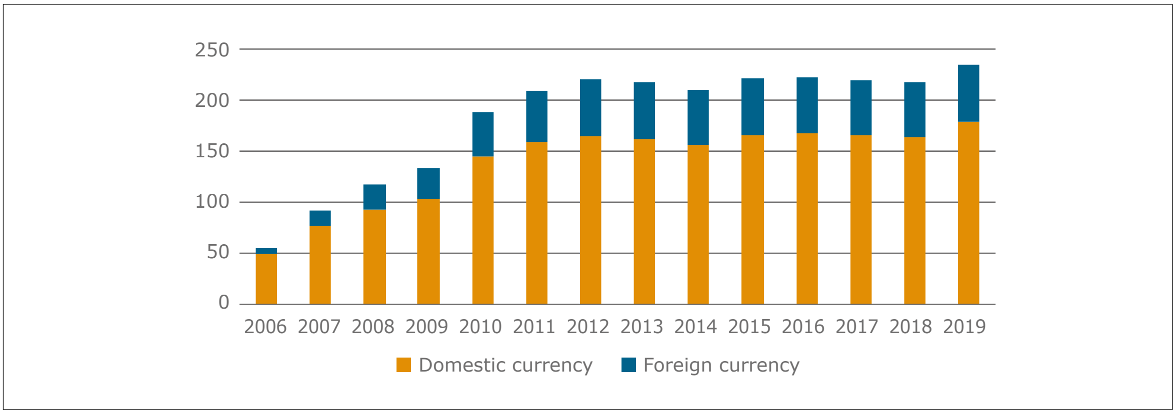
Overall, this system has been working for a long period of time. The recently implemented legislations regarding higher capital requirements, greater information requirements (MiFID II) and other potential obstacles such as the leverage ratio, structural reforms etc. have not been observed to have had any significant effects on the liquidity in the Swedish covered bond market. The Swedish Central Bank (Riksbanken) has been aggressive in its Quantitative Easing (QE) policies, which means that the central bank now owns a large part of outstanding government bonds. Since the outbreak of Covid-19 the Riksbank is also including covered bonds, municipal bonds and, this far, corporate CP in their QE. The central bank has also been active in securing the liquidity in the banks, so they have offered loans to the banks in SEK and USD. Banks post collaterals to receive these loans. The rules for collateral have been eased so banks can use 100% covered bonds as collateral, and they can even use their own covered bonds. It is not possible to see any large effect of the daily turn over due to the QE or any other action by the central bank.

> Figure 10: Daily turnover, 3m moving average, without repos, SEK bn



Source: Riksbanken

> Figure 11: Outstanding amounts of covered bonds, EUR bn



Source: ASCB

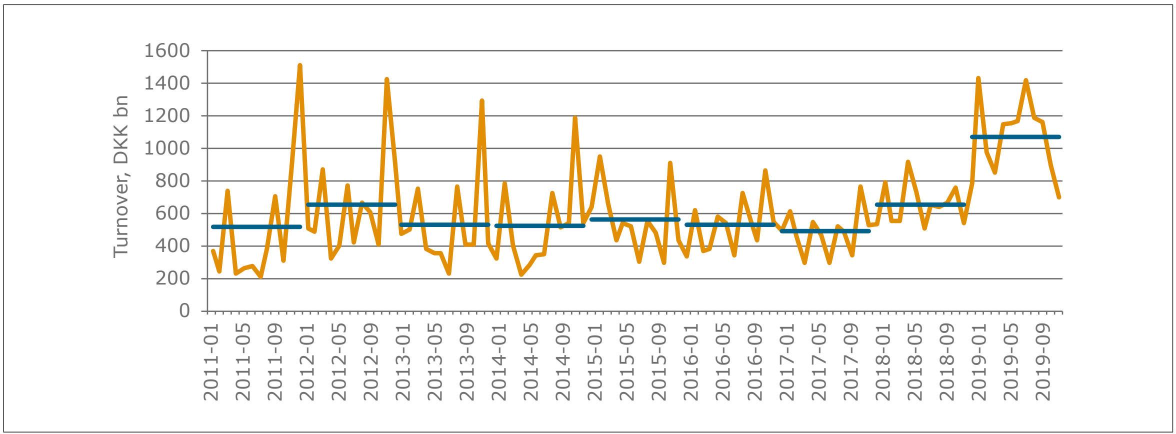
THE DANISH COVERED BONDS MARKET

The type of bonds making up the Danish covered bond market fall into three major segments: callable bonds, bullet bonds and floater with or without a cap. All bonds are UCITS compliant and the vast majority is CRR compliant. The market comprises a great number of securities, but the vast majority of the nominal value is concentrated on a relatively small number of large series.

With an outstanding volume of EUR 419bn the Danish covered bond market is the largest in Europe. Trades in mortgage covered bonds are reported to the Danish exchange, Nasdaq Copenhagen, including over the counter trades and excluding repos.

Average monthly turnover on Nasdaq Copenhagen including over the counter trades and excluding repos in the period 2011 – 2019 came in at around DKK 609bn (app. EUR 82 bn). In 2019 average monthly turnover was DKK 1074 bn (app. EUR 144 bn), cf. Figure 12. On average this means that approximately 34% of the outstanding volume was traded every month of 2019.

> Figure 12: Turnover in Danish covered bonds, monthly turnover in DKK bn



Source: Nasdaq Copenhagen

Note: Data is for nominal value Non- Repo Mortgage Bond transactions including OTC. Horizontal lines indicate yearly averages. From 2018 a new transaction reporting was implemented. Data before and after 2018 is not directly comparable.

Repayment activity in fixed rate callables has in 2019 increased from the already relatively high levels in 2018. Due to high remortgaging activity, issuance of callable bonds in the primary market was once again a driver for turnover in 2019. Meanwhile, as covered bonds issued outside the Euro area are not eligible for purchase under CBPP3, the Danish covered bond market has not been directly affected by quantitative measures by the ECB, which has been a major factor dampening transaction activity in the Euro area. However, an indirect effect cannot be ruled out. In 2019 the share of foreign investors owning Danish covered bonds increased slightly to around 22.5%. During 2019 the foreign investors have decreased their owner share of issuances with shorter maturity while increasing their holdings of bonds with longer maturities. Foreign investors have a positive effect on market turnover and liquidity.

FACTORS AFFECTING TURNOVER AND LIQUIDITY IN DANISH COVERED BONDS

Pass through, tap issuance, quarterly refinancing auctions and frequent early repayment activity are all characteristics of the Danish covered bond market, which among other more universal factors affect the level of market turnover. The strict balance principle deployed by Danish mortgage banks incorporates pass through and means that mortgage covered bonds are tap issued on the go, in sync with demand for mortgage loans.

Following the initial tap issuance, mainly bullet bonds and to an extent floaters, are refinanced by the issuance of new bonds at refinancing auctions over the life of the loan.

Borrowers' early repayments also influence liquidity in the Danish covered bond market. Any Danish covered bond can be bought back by the borrower at the current market price and delivered to the issuing mortgage bank – the buy back option – or in the case of fixed rate mortgages be redeemed at par. This type of early redemption activity gives rise to an increase in transactions both when bonds are bought back (the buy-back option), and when new bonds are issued. Again in 2019 market developments encouraged early repayment activity.

Meanwhile, while not all implemented, liquidity rules including the LCR and NSFR, leverage ratio and capital requirements for market risk FRTB are already unintentionally increasing the cost of market making and repo transactions through increased capital requirements and stricter liquidity management rules.

Due to tap issuance, the market maker function of universal banks is handed a central role providing liquidity in the covered bond market, as professional investors are mostly unwilling to buy in small batches. Onwards, market makers remain the main source of liquidity in the Danish covered bond market. However, higher capital charges, liquidity rules and the low interest rate climate have put pressure on the profitability of market making. To a lesser extent, market makers will be providers of market liquidity, rather than makers between buyers and sellers in the market.

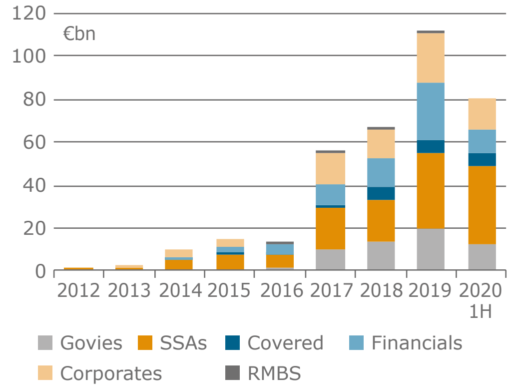
1.4 THE DIFFERENT DIMENSIONS OF SUSTAINABLE COVERED BONDS

By Maureen Schuller, ING Bank, Matthias Melms, formerly NordLB, and Ralf Berninger, SFIL

SUSTAINABLE BOND MARKET OVERVIEW

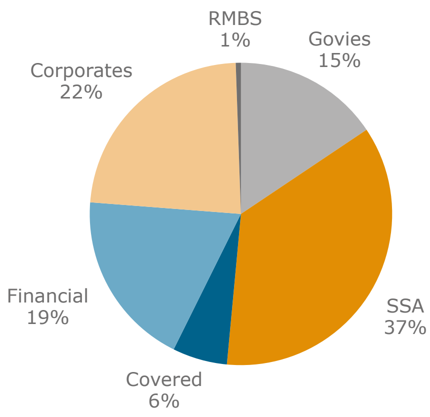
Since the first sustainable bond was issued in 2012 the market has progressed rapidly. Today there are almost EUR 365 bn in sustainable bonds outstanding split across varying bond products. This amount covers only EUR denominated instruments with a minimum size of EUR 250 mn and marketed with a dedicated sustainable use of proceeds. Despite the impressive pace of developments sustainable issuance is still only gradually gaining ground in the covered bond space. While the first ESG covered bond was already issued six years ago in September 2014, the amount of sustainable EUR covered bonds outstanding just passed EUR 21 bn at the end of 1H 2020, representing 6% of the total EUR sustainable bond market and only 2% of all EUR benchmark covered bonds outstanding. This is barely more than a third of the outstanding EUR bank sustainable senior unsecured debt.

> FIGURE 1: EUR SUSTAINABLE BOND MARKET GROWS RAPIDLY



Source: ING

> FIGURE 2: EUR SUSTAINABLE BONDS OUTSTANDING BY SEGMENT

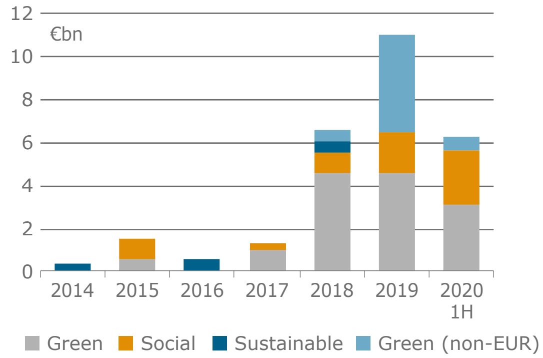


Source: ING

This may seem surprising, as covered bonds represent one of the largest bond asset classes and are by nature secured by assets, such as mortgage loans, that at first sight lend themselves perfectly to green issuance. However, issuers of sustainable covered bonds generally do strive to have sufficient eligible green and/or social loans in the cover pool to at least match the amount of sustainable covered bonds outstanding. As such, these loans not only have to meet the criteria stipulated in the sustainable bond framework, but also the asset eligibility criteria under the respective covered bond legislation or programme documentation. On the other hand, sustainable senior unsecured funding is not subject to additional cover pool eligibility criteria and offers banks a route to sustainable funding without asset encumbrance.

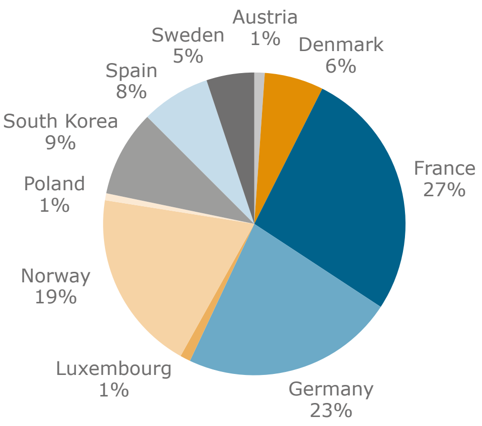
Besides, the majority of covered bonds are secured by residential mortgage loans. This has likely hampered green issuance in covered bond format. Residential mortgage books carry far more technical constraints, hindering the ability to marshal a sufficient volume of loans meeting the requisite environmental standards for green portfolio purposes. It has proven easier to build green loan portfolios from renewable energy loans or energy efficient commercial real estate assets. These loans are generally larger in size. Hence fewer loans are required to establish a significant or sizeable green portfolio. Developments in the field of dedicated green residential mortgage product offerings, the availability of EPC labels and selection criteria based upon building standards and construction age have contributed to an increase in green covered bond issuance. Nonetheless, at 63% the share of green issuance in the total sustainable covered bond supply remains lower than in the bank senior unsecured space where green issuance is far more dominant (84%).

> Figure 3: Supply of sustainable covered bonds



Source: ING

> Figure 4: Sustainable covered bond market by country



Source: ING

There are several factors that will support a further expansion of the sustainable covered bond market. For instance, various issuers are issuing both in social and green format. Also, the issuance outside the euro and in (non-euro) domestic currencies has seen an increase, particularly in 2019. Furthermore, as more inaugural issuers set respective country standards for sustainable issuance, hurdles for other issuers to establish green or social frameworks decline. By the end of 1H20, the number of sustainable covered bond jurisdictions had already grown to ten out of the 27 countries from which EUR benchmark covered bonds are issued. The sustainable investor base is also expanding, providing an additional incentive for banks to establish a framework for the issuance of sustainable bonds. At the same time, broader regulatory and political influences toward environmental and social awareness, support banks in their origination of more green and social assets. Also, the ongoing progress made in terms of tagging loans eligible for sustainable bond issuance is supportive for supply. The EMF-ECBC's EeMAP and EeDaPP initiatives play a very important role in this regard (see article 1.6 Energy Efficient Mortgages Initiative).

USE OF PROCEEDS: SUSTAINABLE COVERED BONDS FINANCE A BROAD VARIETY OF ASSETS

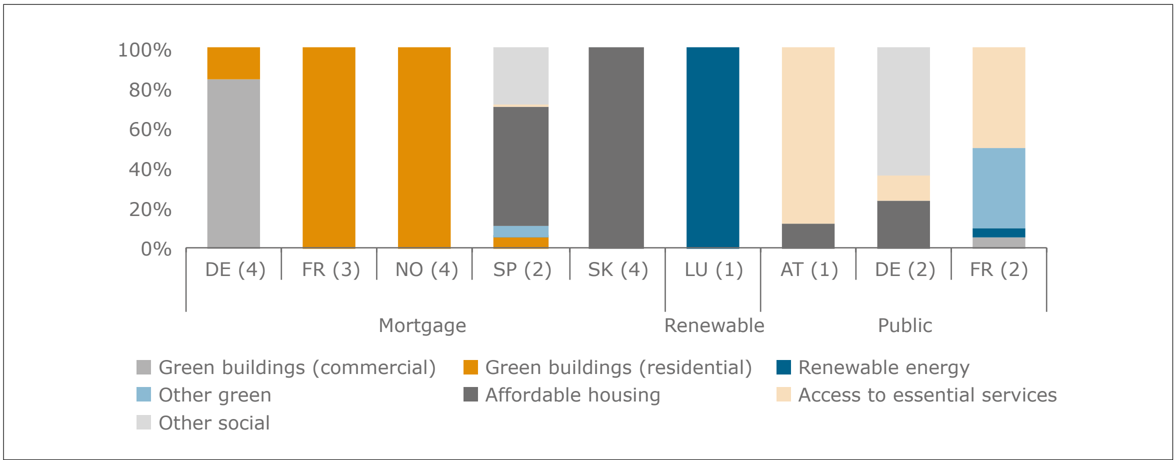
Issuers of sustainable covered bonds generally strive to have sufficient eligible green and/or social loans in the cover pool to at least match the amount of sustainable covered bonds outstanding. As such these loans not only have to meet the criteria stipulated in the sustainable bond framework, but also the asset eligibility criteria under the respective covered bond legislation or programme documentation. While covered bonds historically are used to (re)finance a dedicated pool of eligible assets, a pre-defined use of proceeds is largely uncharted territory in the senior unsecured market. That said, outside the specified green and/or social use of proceed targets, sustainable senior unsecured bonds are not subject to any additional cover pool eligibility criteria. They also do not give investors any preferential claim to the green and/or social assets financed and consequently offer banks a route to sustainable funding without asset encumbrance.

Despite the applicable cover pool eligibility constraints, sustainable covered bonds are nonetheless used to finance a wide range of green and social asset classes. Green covered bonds were at first primarily issued in **mortgage covered bond** format, with the bond proceeds used to finance energy efficient buildings. Particularly banks with mixed collateral pools of commercial and residential real estate assets, such as German institutions, were prolific in the issuance of green covered bonds. Elsewhere, banks with mortgage cover pools (partly) comprised of social housing loans were among the first group of issuers successfully printing social or sustainable mortgage covered bonds. The issuance of EUR benchmark mortgage covered bonds with exclusively green residential proceed allocations did not take off until 2018, as the use of selection criteria based upon building standards and construction age evolved and the availability of EPC labels improved. In 2019, the first positive impact covered bond was issued, which subjects the eligible green loans to additional positive contribution requirements in the field of economic convergence, populations' basic needs or the environment.

Public sector covered bonds were initially solely issued in social format to finance community projects in areas of healthcare and education as part of the issuers' public sector lending business strategy. However, 2019 featured the first green public sector covered bond with a use of proceeds stretching beyond the traditional green building loans, including assets in the sustainable water and sanitation, waste management, energy efficiency, renewable energy and territorial mobility/soft urban transport segments. The public sector covered bond segment also saw the first blue social bond being issued last year, financing public supply projects in the field of water and waste management, building a bridge between social issuance and an environmental use of proceeds. The outbreak of the Covid-19 pandemic has also provided the sustainable covered bond market with new opportunities, particularly in the social segment where the first Covid-19 social covered bond was issued in 1H20 to finance Covid-19 related loans to public hospitals.

The sustainable covered bond market had another important primer in 1H20, with the issuance of the first **renewable energy covered bond** under the amended Luxembourg covered bond law. The bond extends the green covered bond issuance beyond the traditional mortgage and public sector covered bond segments and remains up until today the one single example of sustainable covered bond issuance under a dedicated legal framework for the issuance of green covered bonds.

> Figure 5: Use of proceeds sustainable EUR benchmark covered bonds*



Source: Issuer reports, ING

*) Average shares of the sustainable portfolio assets in covered bond cover pools by end 1H20, unless only reported on an aggregate sustainable portfolio basis. The number of programmes per country is in brackets. Proceed allocation assumptions for French green public sector covered bonds are indicative.

RELATIVE VALUE: THE COVID-19 PANDEMIC PERFORMANCE ANOMOLIES

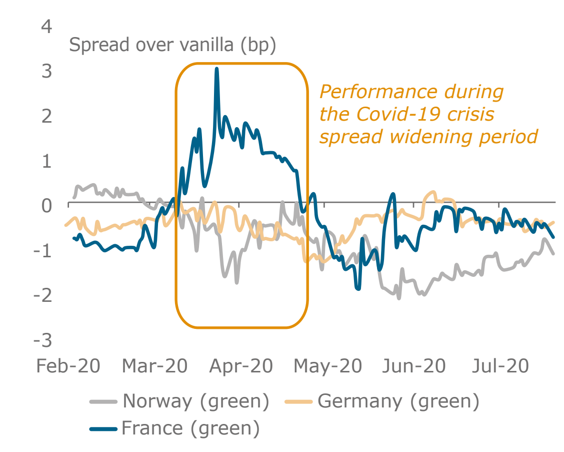
The broad variety in use of proceeds makes the sustainable covered bond market an interesting segment for a performance analysis versus plain vanilla alternatives, particularly during the 1H20 phase of Covid-19 related market volatility. Covered bonds are secured bond alternatives that are traditionally less exposed to market volatility than unsecured alternatives during episodes of crisis. However, there is no convincing evidence that the broader investor base for sustainable bonds has mitigated the Covid-19 related spread volatility and widening of sustainable bonds.

Figure 6 gives an overview of the performance of green covered bonds versus non-green vanilla alternatives for three different jurisdictions. The chart shows that the relative performance of green covered bonds versus non-green alternatives has been mixed during the March-April spread widening episode. While German green covered bonds performed relatively stable versus their vanilla adjacents, French green covered bonds underperformed during this period, whereas Norwegian green covered bonds outperformed.

It is difficult to find a good reason for these differences. After all, the Covid-19 outbreak and measures taken to mitigate its further spreading, led to a period of very poor market liquidity. This could have contributed to swings in spreads without any fundamental reasons. Other technicalities such as the resumption of French covered bond supply in the second half of March may also have played a role. Whether the ECB's purchase programme has had a part in this performance pattern is hard to say. Distribution statistics to central banks and agencies for Eurozone covered bonds do suggest that primary allocations to the CBPP3 are lower for green than for vanilla covered bonds, reflecting the broader interest for green bonds including from sustainable investors. As such, the CBPP3's buy and hold support might have been more important for traditional non-green covered bonds during the March-April spread widening.

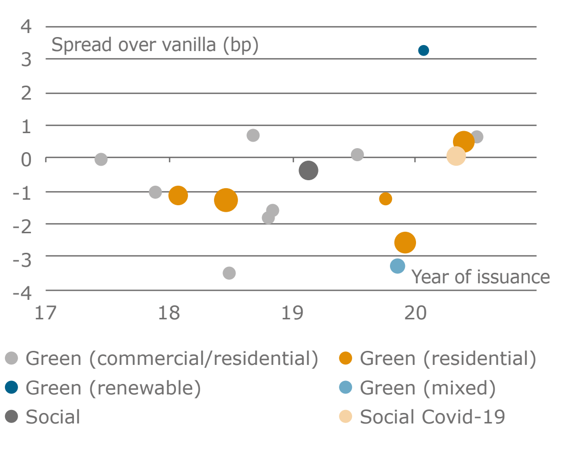
Meanwhile, figure 7 confirms that the large majority of the sustainable covered bonds were at the time of writing quoted through their vanilla alternatives, with the exception of the more recently issued bonds. The chart only includes a selection of sustainable covered bonds with two vanilla adjacents on the curve. The type of use of proceeds or the size of the covered bonds does not seem to play a decisive role in this regard. The most noteworthy outlier is probably the spread of the Luxembourg renewable energy covered bond versus its public sector adjacents. There may be different explanations for the spread concession of the renewable energy covered bond, including its sub-benchmark size. However, the wider spread does suggest that a dedicated cover pool of eligible green assets may not necessarily be a differentiating performance support in comparison to green covered bonds that rank pari passu with traditional covered bonds issued under the same programme in their claim on the cover pool, including the green cover assets financed.

> Figure 6: A mixed performance during the Covid-19 crisis



Source: Markit iBoxx, ING

> Figure 7: Not all sustainable covereds trade through vanilla



Source: Markit iBoxx, ING

REGULATORY DEVELOPMENTS: ANOTHER GEAR HIGHER

The regulatory developments reflecting Europe's climate ambitions have accelerated in the past two years after the European Commission published its ambitious action plan on financing sustainable growth in March 2018. One of the overarching goals of the Commission in this action plan is to redirect capital flows to sustainable investments. By setting minimum standards for green bonds, green (and later, social) assets, ESG disclosure, rating agency contribution, benchmarks, financial institutions, corporates and investors, the action plan contributes to the harmonisation and streamlining of the proliferation of initiatives, methodologies and approaches in the field of sustainability.

To reset its commitment to deal with the climate and environmental challenges, the European Commission presented the European green deal in December 2019. One of the spearheads of the green deal roadmap is the increase in the EU's climate ambitions for 2030 and 2050. To this purpose, the European Commission published its European climate law proposals in March 2020, setting a binding EU-wide legal target for climate neutrality by 2050. To ensure consistency with the climate-neutrality objective, the EU's greenhouse gas emission reduction target for 2030 will (likely) be increased to at least 50% up to 55% compared to the 1990 levels. As the private sector remains key to financing part of the required transition, the European Commission will present a renewed sustainable finance strategy in 3Q20, building on the 2018 action plan. Hence, facilitating sustainable investments remains a top priority on the political agenda in Europe. This will not only keep discussions alive in the field of the EU green bond standard (GBS) or prospectus content for green bonds, but also regarding the suitability of existing capital requirements for green assets.

The taxonomy regulation that came into force in July 2020 is probably one of the most essential foundations for further progress. It provides a unified classification system for sustainable activities and is also the backbone to the establishment of the EU green bond standard. Eligible green projects to be financed by an EU green bond should contribute to one of the six environmental objectives identified by the taxonomy.

1. Climate change mitigation;
2. Climate change adaptation;
3. Sustainable use and protection of water and marine resources;
4. Transition to a circular economy, waste prevention and recycling;
5. Pollution prevention and control;
6. Protection and restoration of biodiversity and ecosystems.

The taxonomy regulation will ultimately be expanded by other sustainable objectives (including social) but not before the end of 2021. An economic activity is considered environmentally sustainable and thus taxonomy compliant under the current regulation if it meets the following criteria:

> The economic activity contributes substantially to one of the environmental objectives identified;

> The economic activity does not significantly harm (DNSH) any of these environmental objectives;

> The economic activity is carried out in compliance with the minimum safeguards;

> The economic activity complies with the technical screening criteria.

The European Commission will establish the technical screening criteria for the climate mitigation and climate adaptation objectives in a separate delegated act, to be adopted before the end of 2020 (to become applicable per 1 January 2022). The delegated act for the other four objectives should be adopted by the end of 2021 (applicable per 1 January 2023). A Platform on Sustainable Finance will be established to advise the Commission on the technical screening criteria, building on the Technical Expert Group's (TEG) technical screening proposals for 1. climate change mitigation and 2. climate change adaptation, and conditions for avoiding significant harm to the other environmental objectives (including 3-6).

The step-up in the EU's climate ambitions for 2030 and 2050 were already taken into consideration by the TEG in the technical screening criteria update of March 2020. For the climate mitigation criteria, the TEG identified eight sectors based on their emissions footprint. These include: 1) forestry, 2) agriculture, 3) manufacturing, 4) electricity, gas, steam and air-conditioning supply, 5) water, sewerage, waste and remediation, 6) transportation and storage, 7) information and communication and 8) buildings. Over the past year, green covered bond issuance has expanded beyond the use of proceeds for energy efficient buildings alone. However, as covered bonds remain primarily secured by mortgage assets, the evolvement of the technical screening criteria for buildings will likely remain most in focus.

Under the TEG's proposals, the primary energy demand (PED) for newly constructed buildings has to be 20% lower than the primary energy demand resulting from the 'nearly zero-energy building' (NZEB) requirements, mandatory for all new buildings in the EU per 2021. Hence, the minimum top 15% ambition will no longer be of relevance to new buildings built from 2021 onwards. A best-in class approach (top 15% of the local existing stock in terms of energy demand) is still applied for the acquisition of buildings built before 31 December 2020 and certification schemes such as EPCs can still be used as evidence for eligibility. However, instead of specifying minimum EPC thresholds, the TEG believes more work needs to be done to define absolute thresholds corresponding to the top 15%. While the new criteria have no implications for the existing green bond frameworks, issuers are for now left with some uncertainties regarding their green bond framework updates, given the 2021 NZEB and EPC thresholds for eligible loans are unknowns.

> Figure 8: The technical screening criteria for buildings

	Construction of new buildings	**Renovation of existing buildings**	**Individual measures and professional services**	**Acquisition and ownership**
Principle	Construction of energy efficient new buildings designed to minimize energy use and carbon emissions **throughout the life cycle** of the building, as such saving a large part of the energy and carbon emissions associated with conventionally designed buildings.	Renovations of existing buildings to reduce energy use and GHG emissions during **remaining operational phase** and avoid emissions related to construction of new buildings.	**Individual measures** to reduce energy use and carbon emissions for the operational phase of the building. The motivation can be demonstrated via an energy audit, energy performance certificate (EPC), or any other method acceptable by the Sustainable Finance Platform. **Professional services** are a necessary support and validation mechanism.	Acquisition of buildings designed to minimize energy use and carbon emissions **throughout the lifecycle** of the building. While data on carbon emissions during the life cycle is still limited, the acquisition of buildings that minimize energy use and carbon emissions **during the use phase** will already make an important contribution to directing users to high performing buildings.
	Condition for non-eligibility: Construction of new buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible	**Condition for non-eligibility:** Renovation of buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible	-	**Condition for non-eligibility:** Acquisition and ownership of buildings for the purpose of extraction, storage, transportation or manufacture of fossil fuels is not eligible

<table>
<tr><th></th><th>Construction of new buildings</th><th>Renovation of existing buildings</th><th>Individual measures and professional services</th><th>Acquisition and ownership</th></tr>
<tr><td>Metric</td><td>Primary Energy Demand (PED), defining the energy performance of a building:

The annual PED associated with regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as kWh/m² per year</td><td>Metrics set by EPBD energy performance regulations for 'major renovation'. For relative improvements: Annual PED linked to regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as kWh/m² per year</td><td>No metrics defined</td><td>Primary Energy Demand (PED), defining the energy performance of a building:

The annual PED associated with regulated energy use during the operational phase of the building life-cycle, calculated ex-ante according to the national methodologies for asset design assessment or as defined in the ISO 52000 standards expressed as kWh/m² per year</td></tr>
<tr><td>Threshold</td><td>Net PED of the new construction must be 20% lower than the PED resulting from the nearly zero-energy building (NZEB) requirements.

The (NZEB) requirements are defined in national regulation implementing the EPBD and are mandatory for all new buildings from 2021.</td><td>Major renovation*: compliant with the building regulations for 'major renovations' transposing the EPBD. EPBD's cost-optimal minimum energy requirements must be met.

Relative improvement**: renovation leads to a reduction of PED of at least 30% in comparison to the building's energy performance before renovation. The initial energy performance and improvement are based on a specialized building survey, and validated by a) an energy performance certificate (EPC), b) an energy audit by an accredited independent expert, or c) another method (transparent & proportionate).</td><td>Individual measures that meet the minimum EPBD requirements for individual components and systems (extra insulation, new energy efficient windows/ doors, etc.)

Individual measures that meet specific requirements (efficient circulating pumps, LED lighting appliances, low-flow kitchen and sanitary water fittings, etc.)

Individual measures always eligible (smart thermostat systems, building and energy management systems, charging stations electric vehicles, smart meters, etc.)

Individual measures installed on-site as building service (solar photovoltaic systems, solar hot water panels, wind turbines, upgrade heat pumps, energy storage units, etc.)

Professional services eligible (technical consultations, accredited energy audits and building performance assessments, etc.)</td><td>Buildings acquired before 31 December 2020:

Building must be in the top 15% of the local existing stock in terms of operational PED, in kWh/m²y based upon

- A representative sample of the building stock in the area where the building is located (city, region or country), distinguishing at least between commercial and residential.

- EPCs may be used to demonstrate that a specific level is within the top 15%.

- For large non-residential buildings efficient building operations must also be ensured through dedicated energy management.

Buildings acquired after 31 December 2020:

- Criteria for new construction at the time of acquisition.

- For large non-residential buildings efficient building operations must also be ensured through dedicated energy management.</td></tr>
<tr><td colspan="5">* A 'major renovation' is a renovation of a building where: a) the total cost of the renovation relating to the building envelope or technical building systems is higher than 25% of the building (excl. the value of the land) and b) more than 25% of the surface of the building envelope undergoes renovation

** The 30% improvement must result from an actual reduction in PED (excluding net PED reduction through renewable energy sources), and can be achieved through a succession of measures within a maximum of three years. Source: TEG, ING</td></tr>
</table>

Source: TEG (Taxonomy Report: Technical Annex, March 2020), ING

GREEN COVERED BONDS

What is a Green Bond?

As defined by the ICMA (International Capital Market Association), "Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance projects with clear environmental benefits and which are aligned with the four core components of the Green Bond Principles (GBP). Eligible green projects include renewable energy, energy efficiency, pollution prevention and control, eco-efficient and/or circular economy adapted products, production technologies and processes, green buildings, terrestrial and aquatic biodiversity conservation, clean transportation."

ICMA's Green Bond Principles

The Executive Committee of the Green Bond Principles regularly publishes an updated version of the GBP, to enable them to constantly evolve and adapt to meet emerging requirements. The GBP are based on four core components (use of proceeds, project evaluation and selection process, management of proceeds, and reporting) and recommendations for the use of external reviews. This reflects the additional guidelines and definitions for external reviews included in the separately published "Guidelines for External Evaluations of Green, Social and Sustainability Bonds", which were drawn up in close cooperation with external experts. It refers to eligible project categories that contribute to five higher-level environmental objectives (combating climate change, adaptation to climate change, conservation of natural resources, conservation of biodiversity, and pollution prevention and control), rather than four key problem areas as in the past. Note that international and national initiatives for drawing up definitions may provide further guidance to Green Bond issuers. Emphasis is given to prompt reporting on significant developments. In addition, the Green Bond Principles have been supplemented by further guidelines: in "Green Project Mapping", the contributions of the green project categories to the five environmental objectives are presented, based on their most frequently observed contributions. The second step is an overall comparison of the Green Bond Principles' project categories across different classification systems used in the market: China Green Bond Catalogue, Climate Bonds Initiative, MDB-IDFC and the forthcoming EU taxonomy. Other frameworks have also been adopted: the "Handbook - Harmonized Framework for Impact Reporting" and the "Guidance Handbook".

The Executive Committee consists of investors, issuers and syndicate banks representative for the market. The GBP are intended for broad use: they provide a guide to the key steps in the process of issuing a Green Bond. In this context, the GBP recommend that issuers disclose the use of Green Bond proceeds. This recommended reporting is a major step towards increased transparency. On the one hand, transparency ensures that the flow of funds into environmentally friendly projects is traceable, while on the other, it provides an insight into the estimated positive impact of the projects. The GBP provide all market participants (investors, banks, investment banks, syndicate banks, brokers and others) with a deeper understanding of the specific Green Bond characteristics.

The core element of a Green Bond is the use of proceeds for green projects (including other related and supporting expenditure, such as research and development), which should be recorded appropriately in the bond documentation. The selected green projects should deliver clear environmental benefits, which should be evaluated and, where feasible, quantified. In the event that the proceeds from the bond issue are used for refinancing, in whole or in part, it is recommended that the issuer discloses the proportion of refinanced projects in the overall portfolio. Adequate information should also be provided about which investments and project portfolios are being refinanced and how far back in time the refinancing projects extend.

Overview of Green Covered Bonds

The first Green Covered Bond was issued in 2015. Since then, a number of issuers have either placed Green Covered Bonds or at least announced Green Bond programmes under which covered bonds could also be issued. So far, a total of 20 issuers from seven countries have placed Green Covered Bonds (Germany, Norway, Sweden, Denmark, Poland, France and Luxembourg). While four issuers have placed Green Covered Bonds in Germany to date, multiple issuers have now entered the market with Green Bonds in each of the countries Norway, Sweden, Denmark and Poland. In addition, the lettre de gage énergies renouvelables was the first covered bond to be issued that is directly secured with assets related to the generation of electricity from renewable energy sources.

Due to the fact that individual issuers' Green Covered Bond frameworks were designed in line with the ICMA's Green Bond Principles, they include the key points relating to the use of proceeds, the process of project evaluation and selection, the management of proceeds, reporting and an external review of the framework. A Green Covered Bond committee is usually responsible for both initial drafting of the framework and its future adaptation. It normally meets at regular intervals and is responsible for monitoring the entire process. Members of the committee generally come from areas such as treasury, compliance, controlling, risk and cover pool management. In addition, the frameworks are usually evaluated by a second party, which examines and confirms the validity and effectiveness of the developed framework.

The issue proceeds are generally used to refinance existing green refinancing arrangements or to grant new loans that qualify under the Green Bond framework. When comparing the re-offer spreads of Green Covered Bonds with the spreads of Non-Green Covered Bonds, we have so far been unable to identify any premium for Green Covered Bonds. Admittedly, however, it is methodologically difficult to prove this for a specific issuer, as no issuer has ever placed two covered bonds with identical features, in both Green and Non-Green variants. As a result, we base our assumption solely on the issuance behaviour of similar issuers in the Green and Non-Green sectors.

We believe that one of the motives for issuing Green Covered Bonds is their importance for investors. For many issuers, their exposure is aimed at expanding their investor base. Another objective is to provide investors with added value. This includes increased transparency by disclosing additional information in the course of Green Bond reporting, which is compiled at least once a year. It can also cover aspects such as quantification of the environmental impact, along with the associated potential for improving secondary market performance. In the case of investments that focus on green or sustainable forms of investment, it is essential to apply objective criteria when assessing and evaluating the relevant issuers or issuance programmes or when comparing them.

To draw conclusions about the investor side or demand in general, we analysed euro-denominated Green covered bonds and compared the issue data with that of traditional covered bonds. In this regard, we are aware that there is hardly evidence of statistical significance. We do nevertheless believe that a tendency for change can certainly be deduced from the distribution of investors. Broken down by regional allocation, it is evident that there is a higher proportion of Nordic and Benelux countries in Green covered bonds compared to all covered bond issues from the issuers analysed in the period under review. Bid-to-cover ratios also suggests, at least indicatively, greater demand for green issues, although in this case too, it would not be advisable to draw general conclusions from findings. Yet, analyses of transaction data support the pattern of higher demand for Green compared to traditional covered bonds, although the market phase into which a bond is issued must be taken into account too. At present, however, there is no discernible difference in the allocation of green issues compared to the allocation pattern for traditional covered bonds. Banks are also the most important investor group for green issues, with an average allocation of 42% since the first Green covered bond was issued in 2015; the allocation rate has been 38% for all covered bonds since 2015. As the ECB was also actively involved in the primary market during the period under review through the asset purchase programme under CBPP3, however, we would regard this as the larger influencing factor. Consequently, we would consider further conclusions to be premature.

SOCIAL AND SUSTAINABILITY COVERED BONDS

The definition of a social bond

The Social Bond Principles published by the ICMA are well recognised as market standard for the issuance of social bonds.

ICMA defines social bonds as

' ..any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Social Projects and which are aligned with the four core components of the Social Bond Principles'

Overall, the ICMA approach to social bonds is very much in line with the ICMA approach to the green bond market. Social bond issuance is based on the same four core components as green bond issuance:

> Use of proceeds;
> Project evaluation and selection;
> Management of proceeds;
> Reporting.

The aim of social bond issuance is to raise financing linked to social projects. ICMA defines social projects as projects that:

'…directly aim to address or mitigate a specific social issue and/or seek to achieve positive social outcomes especially but not exclusively for a target population(s).'

ICMA provides a list of eligible social project categories, however other financings may also be included as long as they meet the ICMA definition for social projects:

> Affordable basic infrastructure (e.g. clean drinking water, sewers, sanitation, transport, energy);
> Access to essential services (e.g. health, education and vocational training, healthcare, financing and financial services);
> Affordable housing;
> Employment generation including the potential effect of SME financing and microfinance;
> Food security;
> Socioeconomic advancement and empowerment.

The social character of a project does not just depend on the project category. The objective of a social project is to have a positive social impact for a target population or address a specific social issue.

The concept of a target population is an important element of the Social Bond Principles. Examples of target populations provided by ICMA include populations that are

> Living below the poverty line;
> Excluded and/or marginalised populations and / or communities;
> Vulnerable groups, including as a result of natural disasters;
> People with disabilities;
> Migrants and /or displaced persons;
> Undereducated;
> Underserved, owing to a lack of quality access to essential goods and services;
> Unemployed.

The definition of target populations takes into account the local context and is not limited to developing countries or to poorer regions in more advanced economies.

It is accepted under ICMA guidelines that services aimed at target population are also available to the general public. This is for example typically the case for investment in public healthcare and public education.

Social bonds under covered bond format

A key area where mortgage covered bonds can provide financing for social projects is the housing sector. Typical examples would be

> Mortgage loans that are financing social housing projects;

> Housing loans to target populations, for example low income families.

Public sector covered bonds can be used as tool to refinance social projects on the local and regional government level including:

> Investment in public healthcare;

> Investments in public education.

Looking at benchmark issuance of social covered bonds since 2018, issuance is relatively evenly distributed between the different asset categories.

Volume	Issuer country	Collateral type	Social Project Category	Issue date
EUR 500 mn	Germany	Public	Social housing, education, healthcare, public infrastructure	25/09/2018
EUR 500 mn	Korea	Mortgage	Affordable housing	30/10/2018
EUR 1 bn	France	Public	Healthcare	19/02/2019
EUR 500 mn	Korea	Mortgage	Affordable housing	18/06/2019
EUR 500 mn	Germany	Public	Public infrastructure, waste water services	30/10/2019
EUR 1 bn	Korea	Mortgage	Affordable housing	05/02/2020
EUR 1 bn	France	Public	Healthcare	07/05/2020
EUR 500 mn	Korea	Mortgage	Affordable housing	07/07/2020

Practical considerations

Covered bonds in social bond format respect the applicable covered bond regulations and are aligned with the ICMA social bond principles. Depending of the social project categories refinanced, a number of issues have to be taken into account.

> ***Target populations:***
Investments in areas like public education or public healthcare are typically available to the entire population without any restriction to certain groups. This is accepted under the ICMA guidelines and these projects would still be eligible for refinancing via a social bond transaction.
For other assets, it may be useful to fix additional asset selection criteria in order to focus on specific target populations or social issues. An example would be to set a maximum household income for eligible affordable housing loans.

> ***Public sector loans:***
Local government plays a key role for investments in social infrastructure in areas such as education, social housing or public transportation. These investments are generally financed via the overall investment budget of local authorities, which makes it difficult to clearly identify loans linked to social projects.

One solution for public sector lenders may be to link the loan contract to specific social investments to make the loans eligible for refinancing via social bonds.
An alternative may be to focus on municipal companies or public sector entities with an investment activity clearly limited to social projects. Typical examples are public hospitals or social housing companies that fulfil certain criteria. On this basis, loans to these entities may be eligible for refinancing via social bonds without earmarking the loans to specific projects.

The definition of a sustainability bond

Sustainability Bonds provide the possibility to finance both green and social projects under the same format. Under the ICMA sustainability bond guidelines, sustainability bonds defined as

'bonds where the proceeds will be exclusively applied to finance or re-finance a combination of both Green and Social Projects. Sustainability Bonds are aligned with the four core components of both the GBP and SBP with the former being especially relevant to underlying Green Projects and the latter to underlying Social Projects.'

There are two main reasons to issue under the sustainability format instead of setting up separate programmes for green and social bonds:

> Many projects in areas like social housing or education often have both environmental objectives as well as social objectives. For example, a loan to a social housing association will finance at the same time an energy efficient building as well as affordable housing for a target population.

> It may be difficult for issuers to reach sufficient lending volumes for regular green or social bond issuance. Pooling these assets together for issuance under a sustainability framework may be a solution to generate sufficient assets for regular issuance.

Issuance in sustainability format has been much less active than under green and social format with just one issuer printing two EUR benchmark sustainable covered bond transactions in 2016 and 2018.

Volume	Issuer country	Collateral type	Project Categories	Issue date
EUR 500 mn	Spain	Mortgage	Includes affordable housing, renewable energy, sustainable agriculture	16/11/2016
EUR 500 mn	Spain	Mortgage	Includes affordable housing, renewable energy, sustainable agriculture	08/05/2018

Covid-19 related issuance

The Covid-19 pandemic has created an important need for investment and additional expenditure across many sectors of the economy including:

> Health care and medical research;

> SME financing;

> Social security expenditure.

As the fight against the pandemic has become a key priority across the globe, many issuers have set up dedicated frameworks to raise funding to finance investment and expenditure related to the Pandemic. Issuers have used one of the three alternative options to set up such an issuance programme:

> Issuers may use an existing social bond programme if some or all of the project categories are aligned with the fight against the Covid-19 pandemic.

> Alternatively, issuers may set-up a dedicated Covid-19 related issuance programme. Such a programme may not be fully aligned with all ICMA principles for social bond issuance. For example, issuers may

choose to go ahead without a second party opinion given the urgency of financing measures against the Covid-19 pandemic.

> Finally, issuers may have additional funding needs that are clearly related to the fight against the Covid-19 pandemic. However – given the nature of their activity – they may not already be in a position to earmark the proceeds for specific Covid-19 related investment or expenditure. In that case, issuers have chosen to go ahead with transactions without any specific definition of the use of proceeds.

At the end of March 2020, ICMA has provided some guidance to the market with a Q&A for Social Bonds related to Covid-19. In particular, ICMA has:

> Provided examples of eligible project categories including healthcare services and equipment, medical research or SME loans supporting employment in affected small businesses;

> Clarified that it is possible to issue a Covid-19 Social Bond even if not all the proceeds are directed towards Covid-19 projects, with issuers ideally providing information concerning the percentage of proceeds earmarked for dedicated Covid-19 investment.

A first Covid-19 related covered bond under social bond format was issued in April 2020. This transaction was issued under an existing social bond framework that had previously been set-up to finance investments by French public hospitals.

Volume	Issuer country	Collateral type	Social Project Category	Issue date
EUR 1 bn	France	Public	Healthcare	07/05/2020

1.5 PUBLIC SECTOR COVERED BONDS – A KEY FINANCING INSTRUMENT FOR PUBLIC INFRASTRUCTURE INVESTMENTS

By Ralf Berninger, SFIL

INTRODUCTION

Across Europe, local and regional governments are responsible for a large share of public infrastructure investments. Local and regional authorities rely to a large extent on the loan market to finance these investments. In many European countries, a significant part of these loans to local and regional authorities is refinanced via the issuance of covered bonds. Exposures refinanced by covered bond issuers to local government borrowers in France, Germany and Spain represent a significant share of local government debt in these three countries.

The current Covid-19 pandemic has created an important for public investments in many areas under the responsibility of local and regional authorities. Public sector covered bonds can play an important role in providing financing for these investments. A first public sector covered bond benchmark transaction under social bond format has been issued in April 2020 to finance investments by French public hospitals.

In addition to the traditional business of refinancing local authority loans, covered bonds are also increasingly used as an instrument for the refinancing of export contracts benefitting from a public guarantee.

I. FINANCING LOCAL GOVERNMENT INVESTMENTS

ELIGIBILITY UNDER EUROPEAN COVERED BOND REGULATION

Loans to local authorities or guaranteed by local authorities within the European Union are eligible as cover pool assets compliant with the definition provided by article 129 of the CRR. A number of additional conditions apply for loans to local authorities outside the European Union. The amendments to article 129 of the CRR as part of the covered bond harmonisation package will not lead to changes in the eligibility of local and regional government loans:

1. To be eligible for the preferential treatment …, bonds …shall be collateralized by any of the following eligible assets:

(a) exposures to or guaranteed by central governments, ESCB central banks, public sector entities, ***regional governments or local authorities in the Union****;*

*(b) … exposures to or guaranteed by …****third-country regional governments or third-country local authorities*** *that are risk weighted as exposures to institutions or central governments and central banks … and that qualify for the credit quality step 1 …, and exposures within the meaning of this point that qualify as a minimum for the credit quality step 2 …, provided that they do not exceed 20 % of the nominal amount of outstanding covered bonds of the issuing institutions*

IMPORTANCE OF LOCAL GOVERNMENT FOR PUBLIC INFRASTRUCTURE INVESTMENTS

Local and regional governments exercise a wide range of responsibilities across Europe. Important differences exist from one country to the other. However, investments in the following areas are to a large extent under the responsibility of the local public sector across Europe:

- Local and regional infrastructure, including the local and regional rail and road network;
- Local and regional public transport;
- Primary and secondary education;
- Basic services such as drinking water supply, sewerage, waste collection and treatment;
- Urban planning and development;

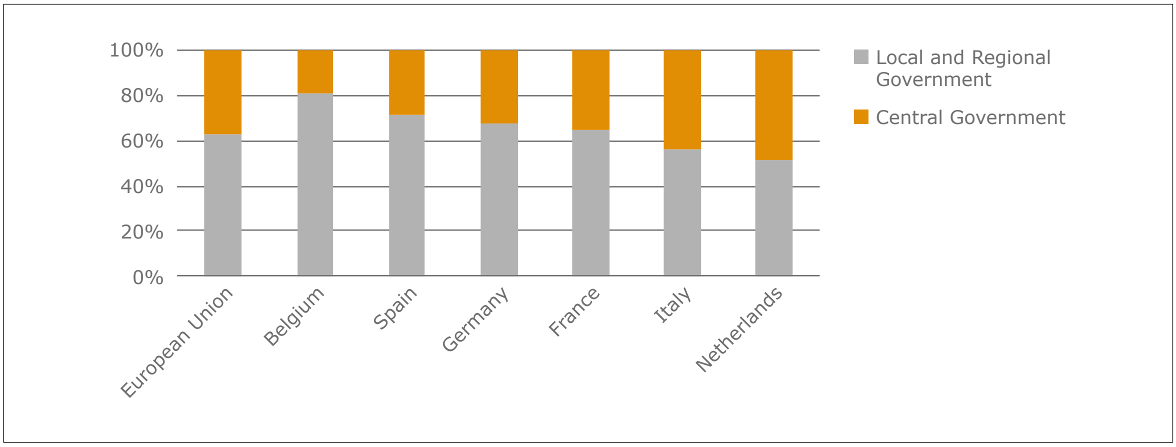
> Parts of the public health care system;

> Public order and safety, in particular municipal police forces and fire-fighting services;

> Social housing

Overall local and state government contribute over 60% of total public sector investments across the European Union.

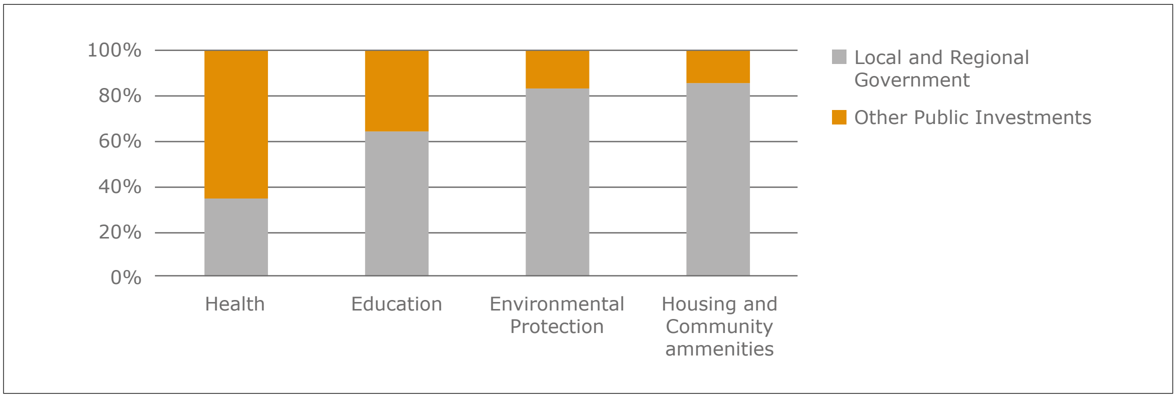
> Figure 1: Local and Regional Government Investments vs. Central Government Investments 2019



Source: Eurostat

In particular, local and regional government investments play an important role in areas particularly important from a social and environmental perspective, including education, public healthcare, environmental protection (for example in the areas of waste management and water management) and social housing.

> Figure 2: 2019 Local and Regional government share of public investments in selected areas



Source: Eurostat

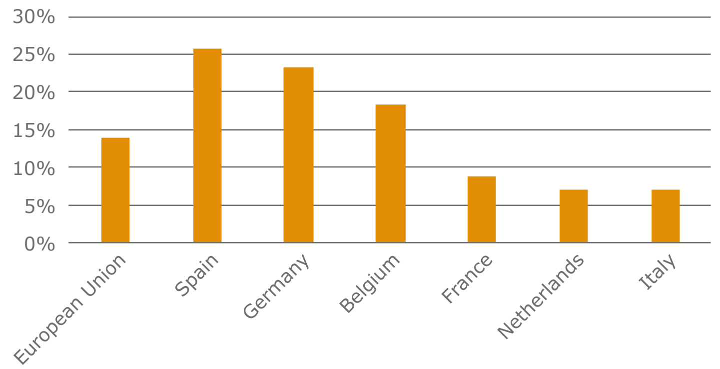
Important differences exist with respect to budget rules for the local public sector from one country to the other. However, the principle of the golden fiscal rule applies one way or the other across most of Europe:

> local authorities are prohibited from running deficits to finance operating expenditures

> new borrowing is only authorized to finance investments.

Because of these strict budget rules, local and regional authorities only contribute a relatively small share to total public sector debt and deficits in Europe. Total European Union local public sector debt represents only 14% of GDP. Again, significant differences exist from one country to the other. Local and regional governments in countries such as Germany, Spain and Belgium with a high degree of decentralisation generally also have higher levels of debt compared to countries with a stronger centralisation like France or the Netherlands with local government debt levels well below 10% of GDP.

> Figure 3: Local and regional government debt as percentage of GDP 2019



Source: Eurostat

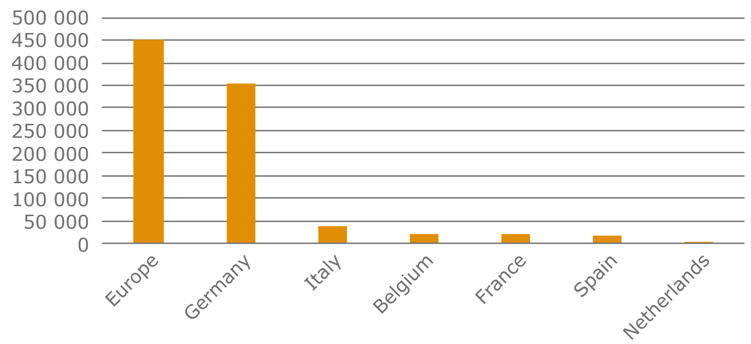
II. FUNDING SOURCES FOR LOCAL PUBLIC SECTOR INVESTMENTS

DIRECT BOND ISSUANCE AS SOURCE OF FUNDING FOR LOCAL AUTHORITIES – ONLY AN OPTION FOR LARGER LOCAL AUTHORITIES

Overall, local and regional authorities are able to raise significant amounts of funding via direct bond issuance with more than EUR 400 bn outstanding bonds issued by European Union local and regional government issuers.

However, access to the bond market is limited to large entities with sufficient funding needs for regular bond issuance. German regional government issuance debt represents around 75% of the European Union local and regional government bond market.

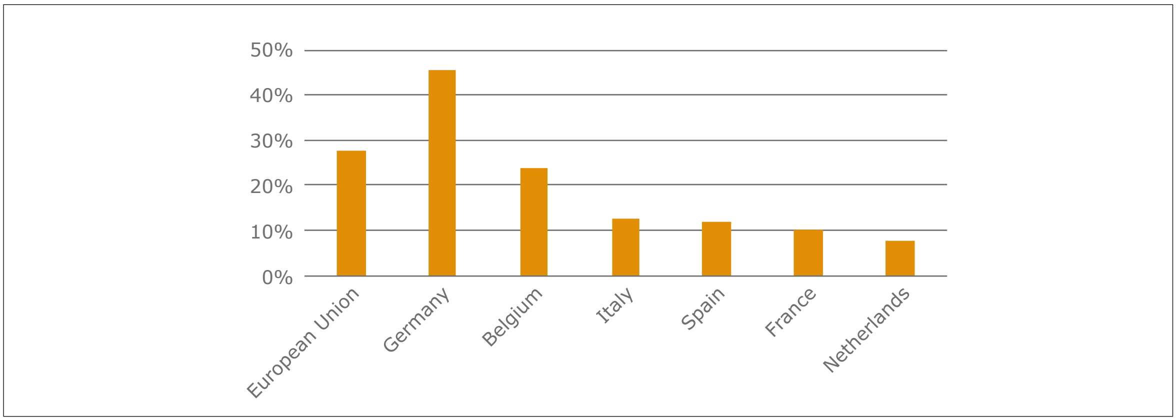
> Figure 4: Outstanding local and regional government bonds 31.12.2019 (EUR mn equivalent)



Source: Bloomberg

In most European countries, funding needs by local authorities are generally too small for direct bond issuance with outstanding bonds representing around 10% of local and regional authority debt for countries like France, Italy, Spain or the Netherlands.

> FIGURE 5: OUTSTANDING BONDS AS PERCENTAGE OF TOTAL LOCAL AND REGIONAL GOVERNMENT DEBT 2019



Source: Bloomberg / Eurostat

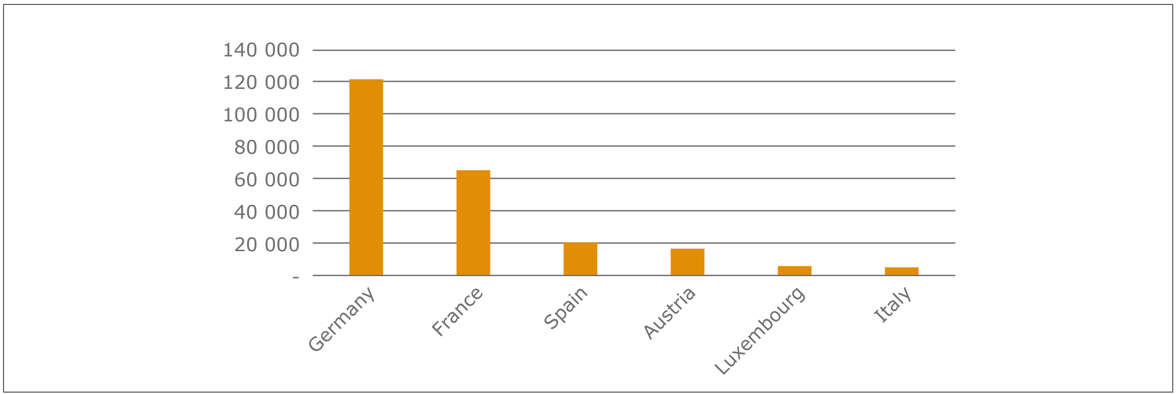
THE LOAN MARKET AS KEY SOURCE OF FUNDING FOR LOCAL GOVERNMENT INVESTMENTS

With access to the bond market only an option for regular issuers, most local authorities rely almost exclusively on the loan market as source of funding for public investments. In many countries, covered bonds play an important role as refinancing instrument for local government lenders.

FUNDING PROVIDED BY COVERED BOND ISSUERS

Public sector covered bonds are issued across Europe; however Germany and France are by far the largest markets in terms of issuance.

> FIGURE 6: OUTSTANDING PUBLIC SECTOR COVERED BONDS IN EUR MN AS OF 31.12.2019

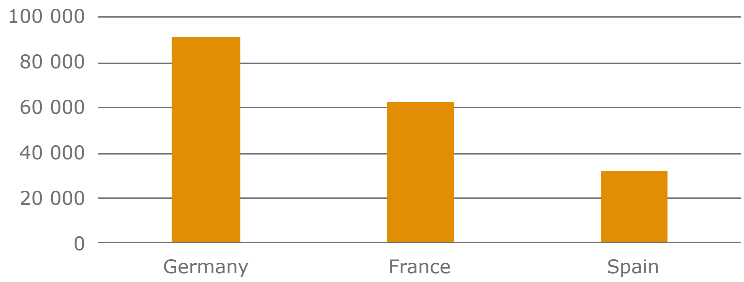


Source: ECBC

Overall, covered bond issuers provide a significant share of funding to local authorities across Europe. Based on the available cover pool data, around EUR 200 bn in claims against local and regional government in the European Union are refinanced by covered bond issuers representing well above 10% of the total European Union local and regional government debt.

Covered bonds play an important role as refinancing instrument in a number of European countries including France, Germany and Spain with a higher share of local government investment refinanced via issuance of covered bonds than in most other European countries. Exposures by covered bond issuers to local and regional authorities in Germany amount to more than EUR 90 bn, based on the cover pool data provided by covered bond issuers. For France, with smaller volumes of local authority debt, covered bond issuers provide above EUR 60 bn in loans and for Spain, the figure is above EUR 30 bn.

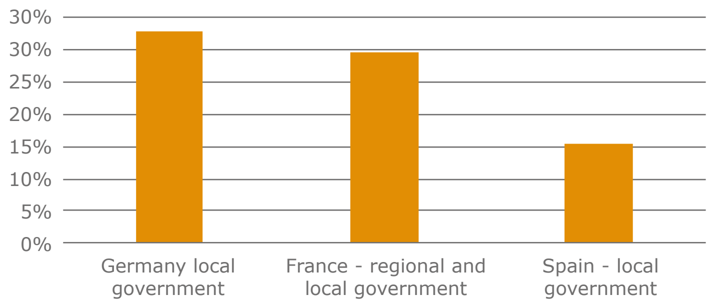
> FIGURE 7: LOCAL AND REGIONAL GOVERNMENT EXPOSURES REFINANCED BY COVERED BOND ISSUERS AS OF 31.12.2019 (EUR MN)



Source: ECBC Covered Bond Label Templates, vdp

For these countries, the local and regional government exposures financed by covered bond issuers represent a significant share of total local and regional government debt. In Germany and Spain, regional government borrowers are often much larger entities with access to a variety of funding sources outside the loan market. In these countries, mainly local government borrowers rely on funding provided by covered bond issuers. Based on the available cover pool data, lending provided by covered bond issuers represents around 30% of French local and regional government debt. Exposures to German and Spanish municipalities represent around a third of German and 15% of Spanish municipality debt.

> FIGURE 8: ESTIMATED SHARE OF LOCAL GOVERNMENT LENDING PROVIDED BY COVERED BOND ISSUERS AS OF 31.12.2019



Source: ECBC Covered Bond Label Templates, vdp, Eurostat

DECLINING VOLUMES IN OUTSTANDING PUBLIC SECTOR COVERED BONDS

The outstanding volume of public sector covered bonds has witnessed a steep decline over the past 10 years. The volume of outstanding bonds has declined by more than 60% to EUR 282 bn at the end of 2019 compared to EUR 733 bn in 2009.

This decline was to large extent driven by declining volumes in the German public sector Pfandbrief market. Outstanding volumes declined from 484 bn in 2009 to EUR 121 bn in 2019. Over the same period, outstanding volumes for public sector covered bonds from France have remained relatively stable at EUR 65 bn in 2019 compared to 72 bn in 2009. Outstanding volumes of Spanish public sector covered bonds increased slightly from EUR 17 bn to EUR 21 bn over the same period.

Public sector covered bonds can be used to refinance a wide range of public sector exposures. The traditional lending business to municipalities has been much more stable than the overall issuance volumes suggest. For example, exposures of German Pfandbrief issuers to German municipalities stood at a total level of EUR 54 bn at the end of 2019, compared to a level of EUR 69 bn at the end of 2009. This represents a reduction by around 20% compared to a decline of more than 60% in outstanding German public sector covered bonds over the same period.

III. PUBLIC SECTOR COVERED BONDS AS REFINANCING INSTRUMENT FOR EXPORT LOANS

ELIGIBILITY UNDER EUROPEAN COVERED BOND REGULATION

Export loans benefiting from a state guarantee or a guarantee provided by an export credit agency (ECA) are eligible for covered bond refinancing if the loans meet the criteria of 129.1 of the CRR. This criteria will not be amended in the context of the covered bond harmonisation package:

1. To be eligible for the preferential treatment …, bonds …shall be collateralized by any of the following eligible assets:

(a) exposures to or guaranteed by ***central governments****, ESCB central banks,* ***public sector entities****, regional governments or local authorities in the Union'*

In addition, CRR requires that effective credit protection is provided for the export loan as defined by article 194.4:

4. Institutions may recognize funded credit protection in the calculation of the effect of credit risk mitigation only where the lending institution has the right to liquidate or retain, in a timely manner, the assets from which the protection derives in the event of the default, insolvency or bankruptcy — or other credit event set out in the transaction documentation — of the obligor and, where applicable, of the custodian holding the collateral

MARKET STILL RELATIVELY SMALL COMPARED TO COVERED BONDS BACKED BY LOCAL GOVERNMENT LOANS

French and German banks are the main issuers of public sector covered bonds to refinance export loans with a state or ECA guarantee. Legal frameworks in France and Germany do not distinguish between covered bonds backed by local authority loans and export loans with a state or ECA guarantee meaning ECA loans and local government bonds may be part of the same cover pool.

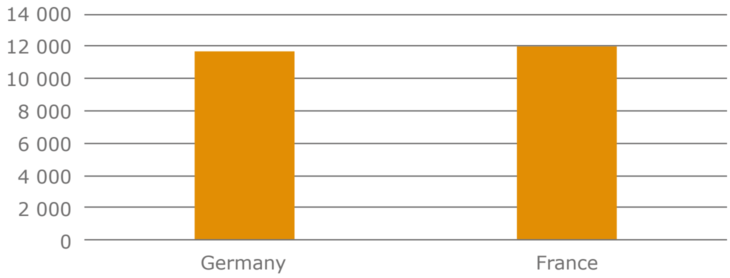
Overall, issuance linked to export loans is still relatively small compared to covered bonds backed by local authority loans. This can mainly be attributed to two reasons:

(1) The guaranteed export credit market is much smaller than the local authority loan market. Taking France as an example, public export guarantees amounted to EUR 65 bn at the end of 2018 which is less than a third of the local government debt market of EUR 205 bn. In addition, depending on the guarantee mechanism, not all ECA loans across Europe will automatically be eligible under the requirements of the CRR.

Use of covered bonds to refinance export loans with a state or ECA guarantee has been a more recent development compared to the traditional local government financing business.

Overall, well over EUR 20 bn in export loans are currently refinanced via public sector covered bonds by French issuers.

> FIGURE 9: EXPORT LOANS WITH A STATE OR ECA GUARANTEE (EUR MN) – COVER POOL EXPOSURES AS OF 31.12.2019



Source: Issuer financial reports, vdp

NEW DEVELOPMENTS SHOULD LEAD TO INCREASED ISSUANCE

The volume of export loans with a public guarantee that is refinanced via covered bonds is still relatively low, compared to the volumes of local government loans. However, a number of factors could well lead to increased issuance over the coming years.

In recent years, many countries have adapted their schemes for public export guarantee business to the needs of covered bond and securitization markets. Examples are France ('garantie rehaussée') and Germany ('Verbriefungsgarantie') where covered bond issuer can benefit from an unconditional and irrevocable state guarantee for exposures linked to the export credit activity.

Only a small share of export loans is currently refinanced via issuance of covered bonds. As a consequence, banks still have large volumes of guaranteed export loans available for covered bond refinancing.

CONCLUSION

Public sector covered bonds play a key role to provide long dated funding for local public sector investments. In markets including Germany and France, local government exposures refinanced by covered bond issuers represent around a third of local government debt in these countries.

Public sector covered bond issuance backed by export loans with a state or an ECA guarantee has been limited up to now. Nevertheless, new guarantee mechanisms, new legislation and a large pool of available eligible loans are likely to lead to increased issuance in the future.

1.6 ENERGY EFFICIENT MORTGAGES INITIATIVE: FIRM STEPS TOWARDS MAKING EEM A REALITY IN THE MARKET

By Luca Bertalot, EEMI Coordinator[1], Jennifer Johnson, Sofia Garrido, EMF-ECBC

I. INTRODUCTION

With climate change being the focus of policymakers for several years and with a society that continues to demand additional commitment from politicians and different industry sectors to fight climate change, in December 2019 the European Commission presented the European Green Deal, a roadmap to make the European economy more sustainable. The European Green Deal was conceived as a growth strategy that would change our way of living and working in order to achieve the green transition in the coming years. It marked the first milestone of achieving the EU's climate neutrality by 2050 as proposed in the European Climate Law. It is clear that to achieve this climate neutrality all economic sectors and society members will need to face an important transformation that will not be exempt of important investments.

In this context, the European Commission signalled buildings as the major consumers of energy and producers of emissions and therefore highlighted the need to make buildings more energy efficient as one of the requirements to get close to the target of climate neutrality.

The strategic importance of energy efficiency, and therefore of the EMF-ECBC led Energy Efficient Mortgages Initiative (EEMI), was not only signalled in the EU 2020 goals but also in the EU 2030 goals. However, when these priorities were set nobody could anticipate what 2020 would bring. In the past months, we have experienced a global pandemic without precedent, the Covid-19 outbreak has changed all we knew before consequently altering most of our priorities. However, if there is one thing that this pandemic and the subsequent crisis has made clearer than ever is the need to fight climate change, as this is one of the factors that directly affects pandemics. While most policy and social priorities have shifted as a result of this phenomenon, the need to take care of our environment to avoid future health crises is now more present than ever.

The fact that climate change continues to be a priority was reinforced during the 2020 State of the Union Speech from the European Commission's President. Ursula Von der Leyen announced a new target of reducing emissions by 55% by 2030 in order to achieve climate-neutrality by 2050. This new goal increases the pressure on society and across industries to fast forward the transition.

These changes are not only needed to achieve climate neutrality goals but are also the fastest way to recover from the current crisis. A Green Recovery for the EU will be the moto for the upcoming months.

This news arrived at a time when the EEMI was making some of its most important progress to date, which will be presented below. To recall, the EMF-ECBC, together with several partners, has been working on the development of an "energy efficient mortgage" according to which building owners are incentivised to improve the energy efficiency of their buildings or acquire an already energy efficient property by way of favourable financing conditions linked to the mortgage. This mortgage financing mechanism as developed by the EU-funded Energy Efficient Mortgages Action Plan (EeMAP) is supported by a data infrastructure developed by the EU-funded Energy Efficiency Data Protocol & Portal (EeDaPP) and intended to facilitate the collection of and access to large-scale empirical evidence relating to energy efficient mortgage assets, allowing a comprehensive analysis of the energy efficiency features which are believed to have a positive impact on property value and a bank's credit risk.

1 The EeMAP, EeDaPP, EeMMIP project have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 746205, No. 784974 and No. 894117 respectively.

STEP 1 - THE CONCEPT AND ITS POLICY BACKGROUND

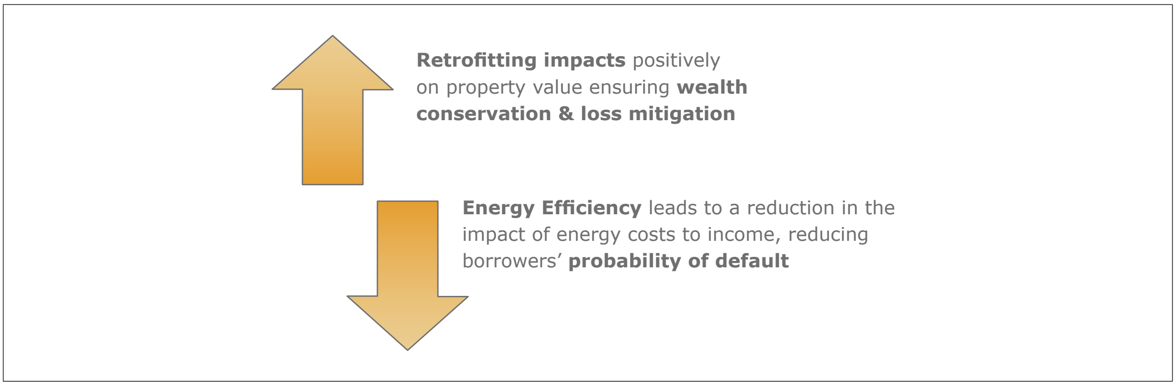
The Energy Efficient Mortgages Initiative was born from the realisation that:

(i) Banks, in financing the purchase of property, can play a game-changing role in supporting the EU's energy savings targets, by bringing energy efficiency into the conversation between banks and consumers by means of a standardised approach to the financing of energy efficient buildings/renovation, and

(ii) Deliver a new asset class, an energy efficient mortgage, which could be used for the purposes of green bond and green covered bond issuance.

As indicated above, one of the key premises of the Initiative is that energy efficiency has a positive impact on credit risk. The incentives the energy efficiency mortgage will offer borrowers (e.g. reduced interest rates and/or increased loan amount) aim to reflect the reduced credit risk of these loans. Energy efficiency frees up disposable income which can positively impact borrowers' ability to service their loan, thereby lowering the Probability-of-Default [PD]. Improved energy efficiency can also increase the value of the property, thereby lowering the loss for the bank in the case of default, i.e. the Loss-Given-Default [LGD].

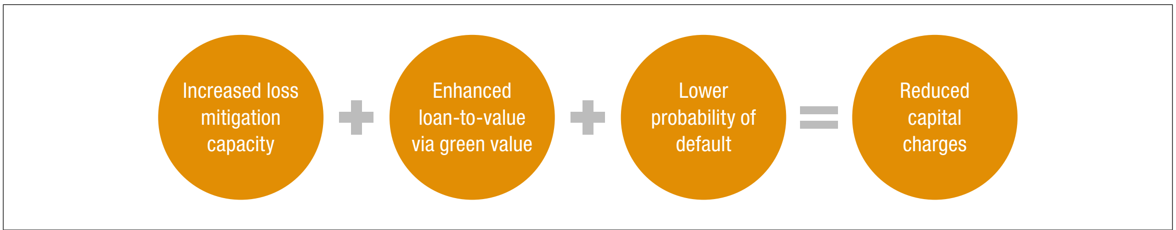
> FIGURE 1: ENERGY EFFICIENCY DRIVERS IMPACTING RISK PARAMETERS



Source: EeMAP

Given the fundamental role of these risk indicators in the calculation of banks' capital requirements, establishing a correlation between energy efficiency and PD and LGD provides a strong business case for lenders to originate energy efficient mortgages. As will be described later in this article, the establishment in the meantime of a strong negative correlation using large-scale empirical evidence could lead regulators to realignment capital requirements to reflect the lower risk of energy efficient mortgages.

> FIGURE 2: UNDERLYING BUSNIESS CASE



Source: EeMAP

Indeed, as the largest source of external financing in the EU, banks are the backbone of the financial system. Lending and financing by this sector need to be fully aligned with the EU's sustainability objectives if those goals are to be achieved. Bridging these two worlds, which until recently have been operating in a largely disconnected manner, has the potential to deliver an effective way to tackle the challenges arising from climate change and a low-carbon energy transition.

In recent times, the importance of the financing industry has been recognised by European legislators across a range of policy actions aimed at bringing the financial sector into line with commitments on climate change. As part of these efforts in March 2018, the European Commission published an Action Plan on Financing Sustainable Growth with the aim of: (a) reorienting capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth; (b) managing financial risks stemming from climate change; (c) fostering transparency and long-termism in financial and economic activity. This strategy has not only been boosted by the EU Green Deal and the focus on a 'Renovation Wave' for which significant private financing will be required, but will be further boosted later this year when the European Commission presents its Renewed Sustainable Finance Strategy. Finally and in parallel, the European Banking Authority continues developing its work on Sustainable Finance which is expected to culminate in 2025. Of particular relevance for the EEMI is the planned assessment by the EBA of the appropriateness of a different assessment of prudential treatment for exposures associated with environmental and/or social objectives in the upcoming years. The aim is to take into account such factors, where this is justified from a risk perspective, to safeguard the coherence and effectiveness of the prudential framework and financial stability.

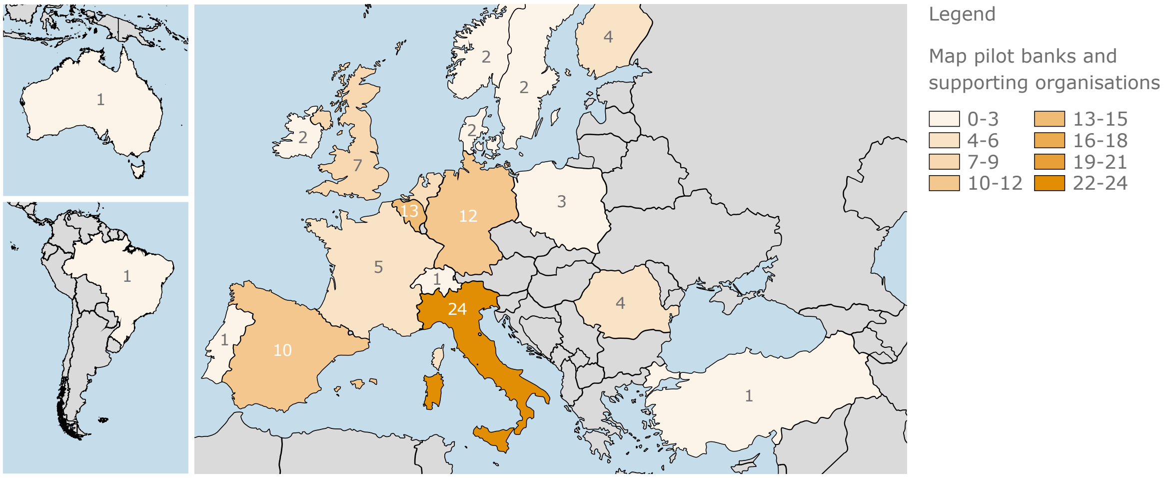
All the above-mentioned initiatives confirm the timely development and relevance of the EEMI in the broader policy context.

STEP 2 - THE LENDING INSTITUTIONS BEHIND THE INITIATIVE

A number of ingredients are key to making the EEMI successful and to securing large-scale market uptake. First, the energy efficiency mortgage framework relies on trust and a carefully aligned value chain among all market participants: financial institutions, investors, regulators, energy assessors, utility companies, contractors and valuers to name but a few. This mutual trust is underpinned by market transparency and reliable performance data. Green financing is a quickly growing market, however market actors still struggle with the current lack of standardised definitions, adequate data and robust measurement indicators. Finally, consumer demand for energy efficiency mortgages is crucial and this can only be ensured by increasing consumer awareness of the benefits of energy efficiency.

The EEMI represents the first time a group of major lenders and other stakeholders from the building and energy industries have proactively come together to discuss private financing of energy efficiency. Currently, sixty-one lending institutions have committed to being part of the Initiative. As of September 2020, these lending institutions represented 76.3% of mortgages outstanding in the European Union, equal to 34% of EU GDP, so they represent a significant critical mass on the market. The Initiative is a unique opportunity to work with lenders and relevant stakeholders to understand how the market can grow and what barriers need to be overcome.

> FIGURE 3: NUMBER OF PARTICIPANTS



Source: Energy Efficient Mortgage Initiatives (EEMI)

The map displayed above shows the location of the participants in the EEMI with a clear national link. In addition, seven international/European supporting organisations have to be taken into account. The number of lending institutions and supporting organisations has grown by almost 33% in the course of a year reflecting the growing support to the initiative which is expanding beyond Europe and gaining the confidence of market participants in countries such as Australia and Brazil.

> FIGURE 4: LIST OF PARTICIPANTS TO THE EEMI PILOT-SCHEME AS END-SEPTEMBER 2020

Country	Pilot Participants	Pilot banks	Total outstanding mortgage market*	Mortage loan portfolio of participants**	Coverage in %
BE	13	9	263,419	263,419	100.00
DE	12	7	1,530,434	1,530,434	100.00
DK	2	1	258,799	258,799	100.00
ES	10	3	487,561	487,561	100.00
FI	4	3	100,354	44,746	44.59
FR	5	4	1,078,000	845,433	78.43
HR	1	0	-	-	-
IE	2	1	81,637	81,637	100.00
IT	24	17	382,583	382,583	100.00
NL	4	3	722,672	335,896	46.48
PL	3	2	100,579	31,564	31.38
PT	1	1	93,846	26,067	27.78
RO	4	2	16,999	16,999	100.00
SE	2	2	422,742	200,334	47.39
EU	**5**	**0**	-	-	-
AU	1	1	739,544	253,140	34.23
BR	1	0	-	-	-
CH	1	0	-	-	-
NO	2	2	298,318	45,519	15.26
TR	1	1	29,784	3,157	10.60
UK	7	2	1,708,134	63,441	3.71
Total EEA	**94**	**57**	**6,203,309**	**4,550,990**	**73.36**
Total EU	**92**	**55**	**5,904,991**	**4,505,471**	**76.30**
Total euro area	**84**	**50**	**5,021,591**	**3,997,775**	**79.61**
TOTAL	**105**	**61**	**-**	**-**	**-**

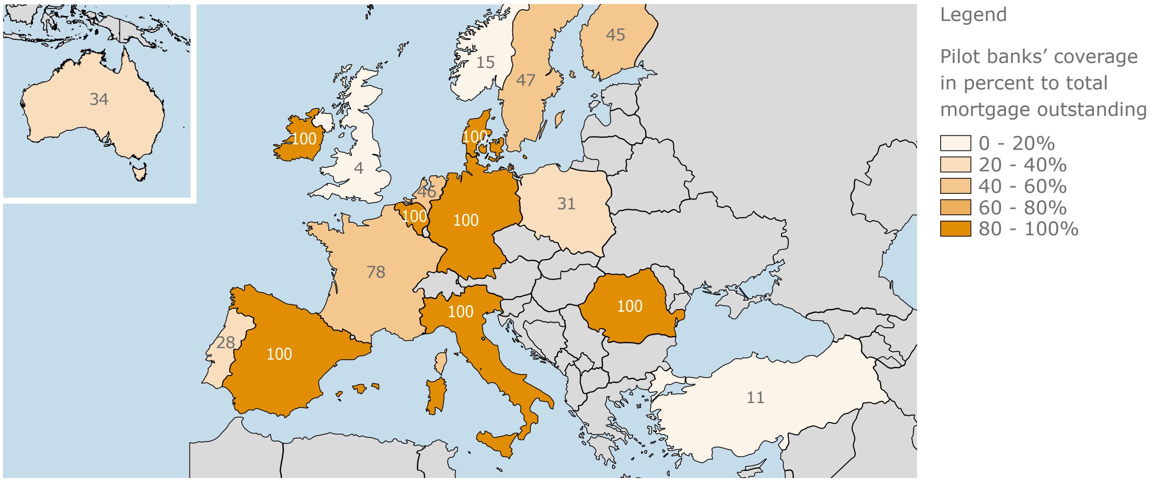
Source: Energy Efficient Mortgage Initiatives (EEMI)

* figures taken from Hypostat 2020

** figures taken from investor reports of the participating institutions

The map below displays the latest state of commitment made by 61 banks across Europe to participate in the EEMI which, in total, represent EUR 5.9 bn (76.3%) in terms of outstanding mortgage loans in the EU.

> Figure 5: Coverage of pilot banks to total mortgage outstanding in 2019



Source: Energy Efficient Mortgage Initiatives (EEMI)

To support participants, National Market Hubs were set up across Europe as a next step with a view to achieving coordination at national level and ensuring market consensus and implementation for energy efficient mortgages. The objectives of this stakeholder collaboration are to:

- Address and overcome market fragmentation and barriers to the deployment of EEM.
- Raise awareness among consumers/borrowers and lending institutions about the added value of EEMs and investment in energy performance.
- Sensitise banks and representatives of the property/construction sectors about their role, responsibilities and possibilities in contributing to scale up finance for energy-efficient and sustainable buildings.
- Help build the business case for EEM by presenting country and city-specific initiatives.
- Develop guidelines and training, capacity building and improve existing skills sets.
- Drive alignment and comparability to address data gaps, valuation instructions and improvements to building codes/standards, and evaluations of performance.
- Facilitate the verification of compliance with thresholds and guidelines set out in definition.

The national hubs have been loosely organised around three main workstreams:

- EEM product development – to deal with the practical implementation of the EEM framework and definition throughout the whole mortgage lifecycle, from origination (marketing, customer journey) to asset eligibility and risk assessment as well as dedicated EEM bond issuance.
- Data – the focus is on closing the information gap and to support stakeholders, financing decision making and mortgage underwriting with consistent, robust, comparable and easily accessible data. This includes promoting data transparency, consistency and information exchange; providing guidance and facilitating accessibility, disclosure, understanding and comparability of building performance and financial data.
- Partnerships/stakeholder collaboration – to explore and ensure value chain integration to streamline administrative costs, data management, liabilities, performance guarantees, etc.

Lending institutions and national market hubs are supported by an Advisory Council, which includes 17 national, European and international authorities or organisations. The aim of the Advisory Council is to promote and facilitate dialogue between stakeholders from the financing and banking communities, property and construction sectors, as well as policymakers to address specific market failures and the criticalities identified during the implementation phase, and ensure policy alignment.

STEP 3 – ESTABLISMENT OF ENERGY EFFICIENT MORTGAGE DEFINITION

The work of the EU Commission on Sustainable Finance and the EEMI both rest on standardised classifications and benchmarks as to what assets can be considered as significantly contributing to environmental goals. Robust, consistent and widely-supported guidelines about what should be considered to qualify as an environmentally sustainable property will enhance transparency and provide certainty for investors facilitating their due diligence processes. Transparency in relation to the underlying asset is equally vital from a risk management and therefore macro prudential and financial stability perspectives.

For its part, the EU Commission finalised is Taxonomy Regulation earlier in the year providing a framework for classifying all potential assets or activities against a comprehensive set of sustainability goals – from climate change to broader environmental and social goals, including the Sustainable Development Goals. Further policy action based on these common metrics, including standards, labels, and any potential changes to prudential rules is currently being developed.

In this context, although narrower in scope, the EEMI aims to achieve the same goals as the EU Taxonomy by way of a cross sectoral market approach and by specifically incorporating sustainability factors into mortgage lending decisions. In this sense, the EEMI is a concrete response to the policy goals of the European Union to integrate sustainability considerations into its financial system and to facilitate the clean energy transition.

The EEM definition was launched in December 2018 and consists of high-level, principles-based guidelines for the technical assessment and valuation of eligible properties. The definition provides clear eligibility criteria for assets and projects that can be financed by energy efficient loans and for the tagging of existing assets in banks’ portfolios. The EEM definition provides the protocols to ensure appropriate lending secured against properties which are likely to both lower credit risk and support climate change mitigation and adaptation.

The EEM definition was the result of more than two years of extensive and wide-ranging engagement and consultation with banks, real estate advisory services providers, built environment professionals and utilities. We see this as a real and tangible achievement as we are now actually at a stage where the definition and the supporting tools can be implemented by banks to develop and rollout corresponding energy efficiency mortgage products. At the same time, lending institutions are able to identify and tag existing mortgages that already meet the requirements laid down in the guidelines which, in turn, will help to deliver the data required to substantiate a link between energy efficiency and reduced credit risk.

EEM definition

EEMs are intended to finance the purchase/construction and/or renovation of both residential (single family & multi-family) and commercial buildings where there is evidence of: (1) energy performance which meets or exceeds relevant market best practice standards in line with current EU legislative requirements; and/ or (2) an improvement in energy performance of at least 30%.

This evidence should be provided by way of a recent Energy Performance Certificate [EPC] rating or score, complemented by an estimation of the value of the property according to the standards required under existing EU legislation. It should specifically detail the existing energy efficiency measures in line with the EEM Valuation & Energy Efficiency Checklist.

To consult the full definition, please click https://eemap.energyefficientmortgages.eu/eem-definition/.

The launching of the definition was timely and the efforts to influence the taxonomy debate were fruitful as the final Taxonomy is aligned with the EEM definition. Nevertheless, as the technology and the science around sustainability is dynamic and evolving, so too are social expectations as well as investor and market needs. Therefore, both the EU Taxonomy and the EEM definition require continuous review. Further alignment between the two frameworks will also be needed to make sure that lenders are able to meet the proposed criteria and avoid market confusion, fragmentation and inconsistencies. Credit institutions do not fall within the immediate scope of the EU Taxonomy, however given that many credit institutions are already active in financing green loans and issuing green bonds, the long-term expectation is that compliance will be important, otherwise there is a risk that the means to finance climate mitigation will not be available.

Building on existing understandings and extensive dialogue and cooperation between relevant stakeholders from the financing and banking communities, property and construction sectors, as well as policymakers is equally critical for the successful uptake of the definition. We believe it is important that taxonomy and EEMI guidelines are regularly reviewed and updated based on feedback received from market participants, ensuring that the metrics and thresholds are as robust and relevant as possible, and reflect the state of the markets. In this sense, a strong and transparent governance structure is indispensable to coordinate this work and to overview the implementation of existing standards.

STEP 4 – CORRELATION ANALYSIS BETWEEN ENERGY EFFICIENCY AND RISK

After the major achievement of the EEM definition, the work of the EEMI did not stop there. Indeed, through EeDaPP, the EEMI has delivered additional important results, including the EeDaPP Master Template intended to support the collection of data on EEM, and the final results of the analysis of the correlation between energy efficiency and credit risk.

As stated above the main underlying assumption of the EEMI is that energy efficient mortgages represent several advantages for lending institutions, borrowers and policymakers. Namely, they are believed to reduce the owners' payment disruption risk, increase property value and, as a result, reduce credit risk for banks and financial institutions. One of the key focuses of EeDaPP was on substantiating this correlation.

In August, after more than two and a half years of work, the findings of EeDaPP were published: importantly, the analysis finds that there is a negative and significant correlation between building energy efficiency and the probability of mortgage default. This important result in the current policy context could potentially pave the way for new policy considerations in relation to energy efficient mortgages. Additionally, the results indicate that the degree of energy efficiency also matters, i.e., more energy efficient buildings are associated with relatively lower risk of default. Once again, these findings highlight the role of energy efficiency in reducing the default probability of a borrower.

The econometric analysis undertaken took as its starting point on a portfolio of approximately 470,000 real estate valuations. After a data cleaning exercise, the total number of mortgages analysed was 72,980, focusing on the specific case of Italy. For the econometric evaluations, two major methodologies are applied: the Logit model and the Cox model. It is important to note that in order to arrive at the above-mentioned results it was necessary to overcome several difficulties in terms of data availability and heterogeneity of Energy Performance Certificates (EPCs) within the EU, which made comparison more difficult. Furthermore, the recent implementation of the GDPR and challenges in matching energy efficiency and financial data further complicated the exercise. With these considerations in mind, there is significant room for action at EU level to overcome in particular differences between and availability of/access to EPCs.

Despite these challenges, the results of the analysis deliver strong evidence of the positive effect of EE investments on the reduction of risk of default and on increasing the value of the property. Commenting on these:

> **Monica Billio**, Professor (Full) of Ca' Foscari University, Venice, commented:
>
> *"After two years of data collection and markest analysis, the EeDaPP project is fundamentally shifting the energy efficiency financing debate towards an accurate analysis of correlation between credit risk and building energy performance, offering a solid quantitative basis for future policy reflections."*
>
> **Daniele Vergari**, CRIF, commented:
>
> *"By uncovering the correlation between collateral's environmental impact and credit risk, EdDaPP has introcuced a new 'green' paradigm shift into credit risk management: not only collateral value, but also collateral's energy performance proves to be a key determinant of risk providing further aid to the ecological transition."*

All in all, this analysis is crucial in defining the benefits in addressing EE aspects in order to complement already existing public and private initiatives. These results open the possibility for a more risk sensitive regulatory treatment of EEM based on the prove that build energy performance has an impact on risk, a new tool that would allow governments to achieve climate change targets and reduce dependence of fossil fuels most importantly without any additional direct cost.

STEP 5 – EEMMIP & THE EEM LABEL

After the conclusion of EeMAP in 2018 and the finalisation of EeDaPP in August 2020, the EEMI will continue to move forward under the Energy Efficient Mortgage Market Implementation Plan (EeMMIP)Plan, which commenced at the beginning of September 2020. This will constitute the third project developed under the EEMI umbrella to continue responding to the objectives of the EU in the areas of sustainable finance and climate change, all against the background of Capital Markets Union, and with the aim of influencing the entire value chain, from consumer to bond investor, stimulating a change in mentality and securing energy efficiency in market attitudes and best practices both in Europe and globally.

This third project will build on efforts to develop energy efficient mortgages by delivering an integrated market and a blueprint for established and emerging markets around the globe. As part of the project an analysis of the current market systems relevant to the development of an EEM market will be carried out. Furthermore, demonstrators to support the end-to-end customer journey and EEM life-cycle will be established. EeMMIP will also establish market-based governance and an EEM Label to support recognition of and confidence in EEM and facilitate access to quality information for market participants. It will deliver guidance for the inclusion of energy efficiency in credit risk assessments for lending institutions and supervisors and policy recommendations for the prudential framework in line with the principle of risk sensitivity and based on the promising findings of the correlation analysis presented above. It will most of all promote a well-functioning banking market. Finally, it will support global take-up of EEM through the Label and institutional cooperation.

In this context, the EMF-ECBC is now working to establish an EEM Label which will first and foremost secure quality and transparency for market stakeholders in the gathering, processing and disclosure of EEM data, stimulating market development. It will also only facilitate further data collection to further substantiate the negative correlation between energy efficiency and risk on an ongoing basis. The Energy Efficient Mortgage Label will be the key market enabler of the large-scale uptake of energy efficiency mortgages.

The primary objective of the Label will be to reassure markets and regulators that mortgages comply with the EEM definition and guidelines as well as to demonstrate a responsible commitment to transparency and common reporting on quantitative qualitative performance indicators. A Label Committee will ensure oversight and ongoing alignment of the EEM definition with high quality standards and market best practice at EU and national level. It will also be responsible for improving regulatory and market recognition of EEM as a new asset class.

The EEM Label will take advantage of the experience the EMF-ECBC has obtained through the creation and development of the Covered Bond Label. The Covered Bond Label's Harmonised Transparency Template (HTT) will serve as a model for a Harmonised Disclosure Template (HDT) for the EEM Label, which will allow lending institutions to disclosure information on energy efficient mortgages in a harmonised way. Following the example of the Covered Bond Label, the HDT will be updated by lending institutions on a regular basis.

The EEMI Label arrives in the market at a time when green bonds are at the top of the political agenda and with the European Union standing as the leader in green finance and as the largest issuer of green bonds in the world. With sustainable covered bonds currently representing less than 1% of the market, there is significant room for growth which has the potential to be significantly boosted by the EEM Label.

NEXT STEPS

Important progress has been made on the road to making EEM a market reality and the milestones in place are clear. However, there is still a long way to go and this will not be free from obstacles.

Indeed, the origination of energy efficiency mortgages may include additional challenges for defining, assessing, monitoring and maintaining improved environmental performance, and transparently communicating performance to regulators and other market actors over the lifetime of the mortgage will require significant market efforts.

In this sense and as a result of clear and measurable criteria, the Label will help lending institutions to effectively de-risk their portfolios by identifying energy and climate risks and determining which loans and underlying assets are more robust, and disclose information on this. indeed, by improving the access to relevant and transparent mortgage information for investors, regulators and other market participants via a consistent reporting template, the Label can become a powerful tool to secure the appropriate prudential treatment of this asset class and further support the securitisation and issuance of green (covered) bonds.

Against this background, the efforts of the EMF-ECBC and its partners will be focused on successfully developing EeMMIP and on making of the EEM Label a market reality. In parallel a close eye will be kept on the political agenda in order to make sure that, as has been the case so far the EEMI, it remains aligned with policy actions and continues to set standards in the market.

1.7 CEE AND BEYOND – THE EBRD MAKING THE CEE COVERED BOND MARKET A REALITY

By Jacek Kubas, Kate Galvin, Laura Matuizaitė, EBRD, Richard Kemmish, Consultant, and Rodger Rinke, LBBW

I. INTRODUCTION

While covered bonds are a well-established instrument in advanced markets, the European Bank for Reconstruction and Development ("EBRD" or "the Bank") has a pioneering role in introducing them in its countries of operations. The Bank does this in its typical fashion of combining policy engagement to create the requisite legal and regulatory framework, together with significant investment.

Legal reform support by the EBRD includes, among others, the development of new covered bond legal frameworks in the Central and Eastern European (CEE) region. Covered bond issuance across the European Union, including the CEE region, has hitherto primarily been regulated at national level. However, the adoption of the Directive (EU) 2019/2162 of the European Parliament and of the Council on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU ("the Directive") on 27 November 2019 with the requirement to transpose the Directive into national laws by July 2021, has created an overarching framework that enables a more integrated covered bond market in the European Union. Since the Directive has a direct impact on the CEE market, the Bank has already worked with the authorities on establishing or updating the relevant regulatory regimes in Poland, Romania, and the Slovak Republic, while reforms are ongoing in the Baltic States, Croatia, Bulgaria, Georgia, and Ukraine.

Even though the covered bond market in the CEE region is still nascent, the issuance of covered bonds in this region is rapidly increasing since the EBRD's involvement. To date, the EBRD has invested a total of EUR 650 mn in covered bonds across its regions, including Greece, Hungary, Poland, Romania, the Slovak Republic and Turkey. The largest engagement financially so far has been the EUR 385 mn covered bond in the Slovak Republic, which, due to its size, is called a "semi-benchmark" covered bond.

"Semi-benchmark" covered bonds have become quite popular among banks, both newcomers and established covered bond issuers. The size of a euro-denominated benchmark covered bond is defined as at least EUR 500 mn with characteristics defined along regulatory guidelines. The term "semi" as opposed to "sub" is used as sub-benchmarks have no lower limit, while semi-benchmark covered bonds have a clearly defined volume range. The size of semi-benchmark covered bonds ranges from EUR 250 mn to EUR 499 mn. It is worth noting that semi-benchmark covered bonds offer a spread pickup and enable investors to achieve higher diversification in terms of issuer and country selection.

Against this context, this article aims to illustrate the implementation of the Directive in the CEE region and EBRD's involvement in it, recent covered bond issuance volumes, as well as the possible impact of Covid-19 on covered bond issuance in the region. At the end of the article, we offer case studies of covered bond reforms in the EBRD's countries of operations and consider next steps in this exciting field.

II. IMPLEMENTATION OF THE DIRECTIVE AND THE IMPACT OF COVID19

The transposition of the Directive into national law by July 2021[1] is a challenge in well-known and established covered bond markets. In those countries developing markets from scratch, the challenge is exacerbated by many factors, not least of which is mobilising resources in ministries and regulators to implement rules for a market that either does not exist or is of limited national importance so far.

Many of the countries of Central and Eastern Europe are still relatively recent members of the Union, most joined in 2004 or 2007 but Croatia as recently as 2013. The process of transposing existing Directives into

1 Article 32 of the Directive states that "Member States shall adopt and publish, by 8 July 2021, the laws, regulations and administrative provisions necessary to comply with this Directive."

national law is an ongoing challenge; in 2019, there were 406[2] ongoing infringement proceedings relating to the late transposition of Directives (although far from all of these were in the CEE region). The Directive is one of the more difficult.

Some countries had hoped that the Directive would be a 'how to implement a covered bond law' manual. However, the need to reflect the diversity of existing covered bond frameworks and national specificities in Member States requires it to be a 'principle based' Directive – defining the destination, but not the route. Member states still need to make difficult decisions to reflect their national needs in topics such as the valuation of the underlying assets (nominal or present value?), or the legal structure (on balance sheet or SPV?).

Furthermore, the Directive allows various national discretions. To a newcomer, it is sometimes difficult to determine which of these discretions reflect 'quirks' of established national frameworks - well understood by local issuers and investors but not a useful precedent for a new country – and which are there to provide genuine commercial flexibility for issuers. It is often a challenge for regulators to balance the need for a strong covered bond framework and for commercial flexibility.

Flexibility is certainly needed to reflect some of the specific needs of the CEE region. Factors such as very low loan to deposit ratios, a prevalence of foreign ownership (and often funding) of major banks, lower sovereign credit ratings, smaller but rapidly growing mortgage markets and less developed derivatives technology all add to the challenge of implementing a Directive drafted with established markets in mind.

Then in early 2020, a new challenge was added. At its most straightforward level the Covid-19 pandemic simply changed priorities and stretched resources further. But funding the recovery generates new questions for a covered bond law. Countries with developed local currency capital markets are naturally more resilient to exogenous shocks; covered bonds – when implemented properly – can be a major contributor to the development of such markets and thus contribute to financial stability. But they can also fund the recovery. Small and medium sized enterprises ("SMEs") and commercial real estate have been particularly hard hit raising questions about the asset eligibility criteria that should be built into the new law.

Furthermore, the need for collateral for central bank emergency liquidity facilities, and then for a viable exit strategy from such facilities, will require many more bonds to be created. Far smaller mortgage markets (relative to either GDP or bank balance sheets) partly explain the interest of many CEE countries in, for example, the development of the European Secured Note ("ESN") market (discussed in further detail below).

Effectively realising the potential benefit of covered bonds for regional economies is a challenge, doing it right within the timeframe of the Directive transposition, even more so. These developments are being observed with interest by non-EU Member States, whose economies are still developing.

III. LATEST COVERED BOND ISSUANCES AND VOLUMES IN THE CEE

Covid-19, spread developments of covered bonds and the activities of central banks clearly made their mark on issuance activity of covered bonds in the first quarter of 2020 – including covered bonds from the CEE region. Compared to prior years, CEE issuance activity in the first quarter was down to roughly 600 Mio. EUR-equivalent, a drop of more than 50%. The bulk of the volume in Q1 2020 was contributed to by the first appearance in benchmark format of the Estonian Luminor Bank. Estonia thus became the fourth jurisdiction in the CEE region after the Czech Republic, Poland and Slovakia to enter the market with a EUR benchmark transaction. At the same time, Estonia started from "zero to one hundred" and skipped several steps in the traditional evolution of a covered bond jurisdiction in the CEE region, which often includes issues in local currencies and sub-benchmark issues in EUR. At the time of writing, LVH Pank entered the Estonia Market as second issuer with sub-benchmark transaction.

2 Commission report and factsheets on monitoring the application of EU law, 2019: https://ec.europa.eu/info/publications/2019-commission-report-and-factsheets-monitoring-application-eu-law_en

These evolutionary steps were visible, for example, on the Polish market, where issues have picked up significantly since the amendments to the legal framework from January 2016, even though the first EUR issues were already issued in 2012. In October 2016, PKO Bank Hipoteczny entered the market with the first EUR benchmark transaction. Four additional covered bond benchmarks followed. mBank Hipoteczny followed suit with a sub-benchmark format in the 6y segment. In the meantime, Polish issuers have taken the next step and in the second half of 2019, PKO and ING Bank Hipoteczny issued the first Green Covered Bonds from Eastern Europe, which were initially issued in Polish Zloty. However, EUR-denominated issuance activity of Green Covered Bonds can be expected in the future. In terms of transparency, Polish issuers are in the lead and report at least quarterly on developments in the cover pool using the Harmonised Transparency Template (HTT).

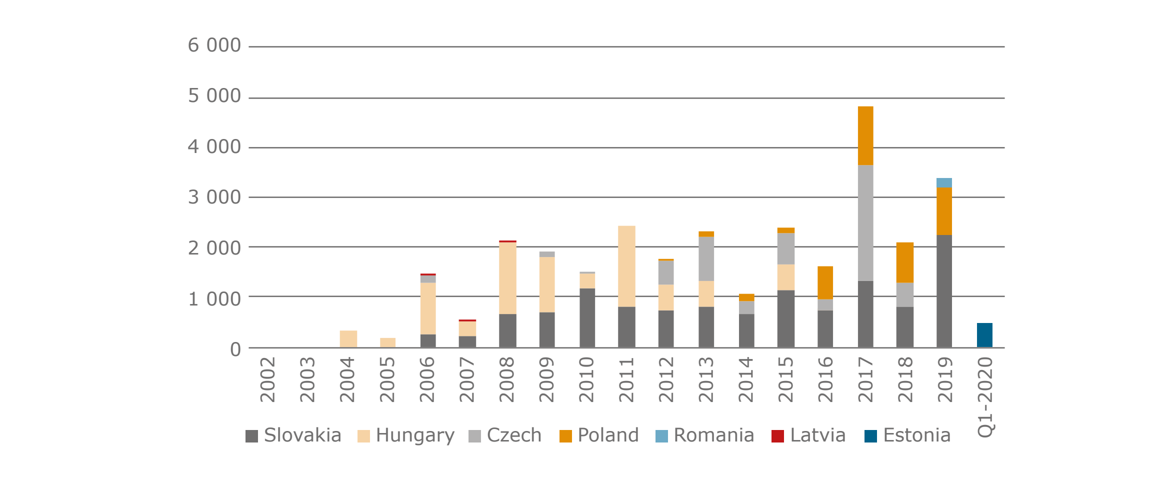
A similar development was seen in Slovakia, which dominated the 2019 issue year from a CEE perspective. The first mortgage bond was issued in 1997, followed 20 years later by the first sub-benchmark transaction in EUR by VUB. The breakthrough came in 2019: With VUB, Slovenská sporiteľňa, Tatra Banka and Prima Banka, four Slovakian issuers, three of them with their first EUR benchmark transaction, were active. That year, VUB even took the opportunity to launch a second benchmark transaction on the market. Most recently, VUB took advantage of the calmer market environment for covered bonds following the turmoil caused by Covid-19 to issue its third EUR benchmark transaction. One of the drivers of the positive development was the Covered Bond Act, which came into force in 2018 and had taken into account the EBA best practices. In terms of transparency, the majority of issuers report on a quarterly basis, but very few use an HTT for this purpose.

In 2019, Alpha Bank Romania became the first covered bond issuer from Romania to enter the market. However, the EUR issue in sub-benchmark format of the Alpha Bank Greece subsidiary has not yet found any followers.

A different story is the development in Hungary and the Czech Republic. In the past, both markets were significantly larger than, for example, the Polish market, but in recent years they have developed an increasing regional focus. The last notable EUR issue from Hungary was recorded in 2015, despite a new regulation (Mortgage Funding Adequacy Ratio) issued by the National Bank of Hungary, requiring commercial banks to refinance 25% of their outstanding long-term mortgage loans with long term bonds. Since then, issues have been made exclusively in local currency. Interest from Czech issuers has also declined. The last transaction on the primary market in EUR, issued by UniCredit Bank Czech Republic & Slovakia, was seen in October 2018. The revision of the legal framework, which came into force at the beginning of 2019, has not yet changed this situation. In 2014, Raiffeisen Bank Czech had launched the first EUR benchmark issue from a CEE country. Issues in local currency have also been declining in the recent past. Another common feature of both markets is that the provision of information for investors is based on local needs, and information in English is usually not available.

Despite the current slump in issuance activity, we expect a resumption of the trend of increasing covered bond volumes in the CEE region, with new issuers accessing the market for the first time and further enhancements to some of the local frameworks.

> Figure 1: Issuance of EUR-denominated CEE Covered Bonds (in EUR mn)



Source: ECBC Covered Bond Label Templates, vdp

IV. THE ROLE OF THE EBRD IN THE DEVELOPMENT OF COVERED BOND MARKETS

a) Background

The EBRD is an International Financial Institution ("IFI"), founded in 1991, with a guiding principle to further progress towards "market-oriented economies and the promotion of private and entrepreneurial initiative". Across three continents, the Bank finances projects that strengthen the private sector and help make economies more competitive, well-governed, green, inclusive, resilient and integrated. Since 1991, the Bank has invested more than EUR 145 bn in a total of over 5,700 projects. In practice, the EBRD is always asking itself how each transaction can be additional for the transition of the country, and thus why the Bank should be involved.

One of the EBRD's functions is to stimulate and encourage the development of capital markets. Acknowledging that capital markets are the engine rooms of modern economies, the EBRD supports the creation of an efficient ecosystem for local currency and local capital markets through a combination of transactions, investments, own bonds issuance, legal reforms and policy engagement.

The EBRD emphasizes investments in the private sector – a unique characteristic among IFIs. However, this focus does not preclude it from engaging in policy dialogue. Rather, the EBRD provides technical advice, support, and reform work, fostering innovation and building modern economies in its countries of operations. This holistic approach maximizes the EBRD's impact and showcases in practice the Bank's transition concept.

The EBRD works to develop capital markets in its regions for a number of reasons. It is often the case that financial intermediation is largely bank-based; banks are predominantly foreign owned, leading to an overreliance on parent funding; there is a persistent credit demand-supply gap; and financial stability is often fragile and vulnerable to external shocks.

There is significant room for improvement; while the CEE countries account for 20% of the EU's population and 8% of its GDP, their capital markets represent only 3% of all listed shares and debt.

Acknowledging this, the EBRD is deploying all available means in its "development toolbox" to promote local capital market development. Investment is indeed central to growth and sustainable development, but it is not an end in and of itself. Equally important is policy dialogue and technical advice. This is the unique advantage of the EBRD, which, as an IFI, is actively engaged in both investment and policy work, establishing modern legal and regulatory frameworks that support the transition towards a well-functioning market economy.

In the roadmap to the development of local capital markets, there are various policy priority areas to focus on, including upgrading capital markets policy frameworks, enhancing the legal and regulatory environment, improving capital market infrastructure, and expanding the product range and investor base.

To this end, covered bonds are an important building block for developing local capital markets. The Bank has been championing this product for a number of years through legal and regulatory reforms and investments in CEE and Southern Eastern Europe (SEE). The Bank's work in the field of covered bonds encompasses all parts of the "development toolbox" and illustrates how the EBRD supports the development of local capital markets.

b) Looking forward

The size of the covered bond markets in CEE and SEE is significantly smaller than the larger EU markets of Germany, Denmark, France and Spain. In CEE, only three countries (Hungary, Poland and the Slovak Republic) have any meaningful number of covered bonds outstanding and the CEE in total represents substantially less than 1% of the total covered bond market. This number had been significantly lower prior to the EBRD's engagement.

Taking into account this discrepancy and acknowledging the importance of having long-term funding available in local capital markets, the EBRD remains engaged in a series of covered bond legal and regulatory reforms in its regions. The aim of these reforms is to align the applicable frameworks with widely accepted standards; render them more transparent, efficient, and understandable to investors, including foreign investors, and to rating agencies; and remove barriers hindering the use of covered bonds for finance.

As of September 2020, the following reforms have been completed by EBRD:

> **Poland**: In early 2016, the EBRD completed a technical cooperation ("TC") project with the Ministry of Finance in Poland. The project focused on the development of a new covered bond legal framework based on best practices. The Local Currency and Capital Markets Development ("LC2") team at the EBRD facilitated the reform by reviewing and providing comments and recommendations for updating the Act on Covered Bonds and Mortgage Banks from 1997. This work, initiated by the Polish Mortgage Credit Foundation and mortgage banks, resulted in the amendment of the Act on Covered Bonds and Mortgage Banks combined with associated changes in the bankruptcy law. This led to the creation of the market, including domestic and international benchmark issuance.

> **Romania**: The EBRD played a significant advisory role to the new covered bond law adopted by the Romanian Parliament in September 2015. In Romania, there had not been a covered bond issuance since the covered bond law of 2006 was adopted. The new law conforms to: (i) the definition of covered bonds as per EU legislation, including the Capital Requirements Directive and the UCITS Directive; and (ii) the "Best Practice" supervisory guidelines as published by the European Banking Authority (EBA). According to a comparative analysis, published by the ECBC in 2018, Romania's legal framework aligns with the EBA's best principles, thus enhancing investor confidence in the market.

> **Slovak Republic**: The EBRD completed a TC project in the Slovak Republic in 2017, updating the regulatory regime surrounding covered bonds. The previous covered bond law had supported the development of the covered bond market to a certain extent, but it presented many issues that hindered further market growth. The market was confined to sub-benchmark bonds purchased by

domestic investors, typically other banks; and it was difficult for banks to structure internationally acceptable benchmark-sized transactions. Out of the 17 best practices identified by the EBA, the Slovakian covered bond framework was only fully compliant with 6. The reform created the legal foundations for covered bonds with amendments to the existing law and incentivised a vibrant local covered bond capital market.

The following reforms are ongoing:

> **Baltic States (Estonia, Latvia, Lithuania)**: In the spirit of pan-Baltic cooperation mandated by the 2017 Memorandum of Understanding signed by the three Ministries of Finance, the covered bond reforms in the three Baltic countries will endeavour to be part of a coordinated Baltic covered bond framework. With this project, the European Commission's Directorate-General for Structural Reform Support (DG REFORM), together with the EBRD, supports the Baltic States with the introduction of a pan-Baltic covered bond framework, contributing towards well-functioning and larger capital markets in the region, opening up long-term funding options for banks, and increasing the level of lending to economies. It is envisaged that each Baltic State will have its own covered bond law and secondary regulations, and so the pan-Baltic covered bonds issuance will be achieved on the basis of the overall framework. The interim report on the pan-Baltic covered bond framework was published in March 2019 for public consultation; currently, the comments received are in the process of being analysed. In Estonia, the law on covered bonds was adopted by the Parliament in February 2019 and the respective laws in Latvia and Lithuania are expected to be submitted to their Parliaments soon.

> **Croatia**: The EBRD is working with the Ministry of Finance, the Croatian National Bank (CNB) and the market's supervisor, HANFA. On November 20th, 2018, the EBRD and the CNB organised a one-day event, "New EU Covered Bonds Framework – what is in it for Croatia?" in Zagreb. The event featured panellists and speakers representing a broad range of international and national market participants. It showcased the market's interest in the development of a regulatory regime for covered bonds in the country. Due to other pressing legislative priorities, the reform is currently on hold, but there are positive signs that the adoption of the EU covered bond framework will bring progress soon. To that end, a new working group is in the process of being created in September 2020 to kick-start efforts.

> **Bulgaria**: The EBRD is working with the Ministry of Finance on the introduction of a Covered Bond Legal and Regulatory Framework in Bulgaria. Even though Bulgaria has an existing Law on Mortgage Bonds, the current market is not very well developed in the country. One of the main reasons we do not see many issuances of mortgage bonds in Bulgaria is that the law is not aligned with the Directive. Therefore, in order to get a better idea on the current law and seek views about the scope and potential to develop the Covered Bond market in Bulgaria, the EBRD organised interviews with seven key Bulgarian banks in the first half of June 2020. The interviews were extremely informative and showcased the market's interest and potential future expansion of both mortgage lending and Covered Bond issuance under an upgraded regulatory framework. The next step of this project is to prepare a Concept Paper analysing the legal and regulatory landscape and proposing an approach to reforming the Covered Bond market in Bulgaria.

> **Ukraine**: The EBRD is working to develop in parallel laws for securitisations and covered bonds in Ukraine in cooperation with the National Securities and Stock Market Commission. This is a long-term project aligned with broader developments of the capital markets.

> **Georgia**: The EBRD is also in discussion with the National Bank of Georgia (NBG) and assisting them in their efforts to create a new covered bond framework.

V. WHAT IS NEXT?

As we enter an unprecedented period of economic turmoil, there is an urgent need for a comprehensive, coordinated European response and an innovative way of thinking. With that in mind, the structuring, legal and supervisory features that have made covered bonds successful could be applied to other asset classes with the necessary changes being made. The Covered Bond Directive recognises that a new class of financial instruments called ESNs (mentioned above), has been proposed by market participants and others as an additional instrument for banks to finance the real economy, i.e. SMEs and infrastructure projects. Both the European Commission and the EBA have acknowledged the existence of a business case for the creation of ESNs as a dual-recourse medium- to long-term instrument to fund SME loans.

The EMF-ECBC, with the support of the EBRD, has established a Working Group dedicated to ESNs with the aim of sharing knowledge via different workstreams by defining concrete proposals, providing technical advice, investor education and sharing best practices between the various jurisdictions. Like covered bonds, ESNs have the potential to channel funding to the real economy in a way that will add to the stability of the banking market, develop capital markets and increase cross-border investment within the European Union.

It is well documented that covered bonds are particularly resilient in times of financial crisis, as evidenced in 2007. The market has remained robustly open for banks to refinance themselves during periods of exceptional market volatility. One hopes the same resilience is demonstrated during the current crisis precipitated by the Covid-19 outbreak.

1.8 IMPLICATIONS FROM THE IBOR-BENCHMARK REFORM FOR THE COVERED BOND MARKETS

By Markus Herrmann, Senior Investment Analyst, LBBW

INTRODUCTION[1]

Since 2013, when IOSCO (The Board of the International Organization of Securities Commissions) had published their "Principles for Financial Benchmarks" and 2014, when the FSB (Financial Stability Board) published its report "Reforming major interest rate benchmarks", several years passed with countless working group meetings, numerous recommendations, regulatory statements and public consultations by the various supervisory bodies. It is now the year 2020 that brings to the markets the first real life transformation of the old "IBOR" world into the new regime of (nearly) risk-free rates (RFR). Hence, we believe the topic is a timely and relevant addition to the line-up of key themes in this year's 2020 Fact Book.

Manipulations of reference interest rates in the past and a significant decline in turnover in the underlying money markets have triggered a reform process that is now being implemented in all major currency areas. In Europe, this culminated in the EU Benchmarks Regulation (BMR), which came into force in 2018. The regulation became the catalyst for concrete changes in the two most important euro rates EONIA (Euro OverNight Index Average) and EURIBOR (Euro Interbank Offered Rate). Outside the EUR-context, users of LIBOR (London Interbank Offered Rate) in their respective currencies must also prepare for far-reaching changes in the coming 18 months, as LIBOR is to be phased out by the end of 2021.

This article will explore the specific implications of the IBOR-Reform for the covered bond markets and try to assess where we stand in the main issuing currencies with respect to the transformation of the existing benchmarks: from "old" EURIBOR or EUR LIBOR to "new" EURIBOR or €STR, from EONIA to €STR, from GBP Libor to SONIA, and from USD Libor to SOFR. We will look at the timetables set by the respective regulators, with a main deadline being the end of 2021, and see of what relevance for global covered bond issuance, both already outstanding and newly issued, the new rules are.

Directly impacted are those covered bonds issued in a floating rate (FRN) format, so we look at the historical issuance pattern FRN vs fixed rate, and analyse the drivers for FRN issuance in the context of the rate cycle – maybe there is a renaissance ahead? Also impacted are fixed rate covered bonds with a soft bullet (SB) maturity structure, which in most cases revert to a FRN for the extension period. Other relevant aspects to be addressed are the underlying market fundamentals and collateral structures (e.g. fixed vs floating rate mortgage loans, hedging mechanisms, interest and liability swaps etc.), which all will be affected by the new benchmarks.

Among other things, market participants need to offer new products, prepare for their use and actively contribute to the creation of liquid markets. In addition, legacy contracts must be converted or redesigned and existing processes, models and IT systems must be reviewed and adapted. Moreover, covered bond issuers will need to adapt the transaction documentation for existing issues maturing after 2021, in many cases via a bondholder consent solicitation, restructuring of Libor swaps into new benchmarks, adjustment of the underlying loan product in the cover pools to the new benchmark etc.

OVERVIEW OF THE NEW RFRS IN THE MAIN CURRENCIES

The table in Figure 1 gives an overview of the new or "alternative" RFRs in the global five main currencies USD, EUR, GBP, CHF and JPY. While also other currencies have recently become increasingly relevant for the issuance of covered bonds, we note that currencies outside the EEA and Switzerland account for less than eight percent of total issuance to-date (Source: ECBC Global Issues Working Group Brochure April 2020).

1 I would like to thank Dr. Jan Rosam, Partner at Ernst & Young, EMEIA Financial Services, for sharing his insights about the current state of play in the world of IBOR transition with me.

> FIGURE 1: OVERVIEW OF THE NEW RFRS IN THE MAIN CURRENCIES

	USD	EUR	GBP	CHF	JPY
IBORs	USD LIBOR	EURIBOR, EUR LIBOR, EONIA	GBP LIBOR	CHF LIBOR	JPY LIBOR
Working Group	Alternative Reference Rates Committee	Working Group on Euro Risk-Free Rates	Working Group on Sterling Risk-Free Rates	National Working Group on Swiss franc Reference Rate	The Study Group on Risk-Free Reference Rates
Alternative RFR	**Secured Overnight Finance Rate (SOFR)** Selected in June 2017	**Euro Short-Term Rate (€STR)** Selected in Sept 2018	**Reformed Sterling Overnight Index Average (SONIA)** Selected in Apr 2017	**Swiss Average Rate Overnight (SARON)** Selected in Oct 2017	**Tokyo Overnight Average Rate (TONAR)** Selected in Dec 2016
RFR Publisher	Federal Reserve Bank of NY	ECB	Bank of England	SIX exchange	Bank of Japan
RFR Rate type	Secured	Unsecured	Unsecured	Secured	Unsecured
RFR Rate description	Secured rate that covers multiple overnight repo market segments	Unsecured rate that captures overnight wholesale deposit transactions	Unsecured rate that covers overnight wholesale deposit transactions	Secured rate that reflects interest paid on interbank overnight repo	Unsecured rate that captures overnight call rate market

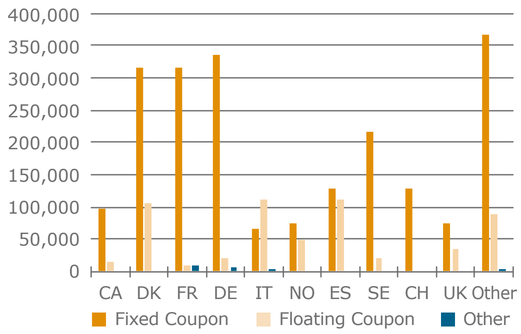
Source: LBBW, Working Group on €uro Risk-Free Rates, June 2020

Each of the alternative RFRs is published by the respective central bank, with Switzerland being the exception where the stock exchange publishes the rate. As the RFRs need to ground on robust observable overnight transaction data, to which the central banks have direct access, this seems to be the natural choice. Whereas the old IBORs had incorporated a degree of credit risk based on the average of the included panel banks, also depending on the term up to 12 months, the new overnight RFRs are supposed to be nearly risk free. The EUR, GBP and JPY RFRs reflect unsecured overnight transactions; their USD and CHF peers reflect secured overnight repo transactions. We will highlight the status quo and transition progress in more detail for the USD, EUR and GBP markets below.

RELEVANCE OF IBOR – RFRS FOR THE CB MARKET: FRN ISSUANCE

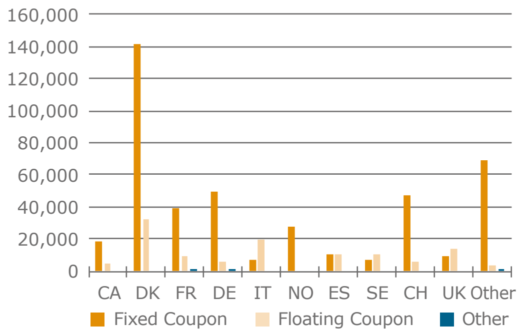
We see the direct relevance coming from the coupon format of the issued bonds, fixed or floating. Floating rate CBs to-date were typically referenced to LIBOR / EURIBOR and thus need to be transformed to a new benchmark. With an outstanding volume of EUR 567 bn (as of 12/2019, Source: ECBC Fact Book 2020 Database), the share of FRN bonds in the global CB market is estimated to be 21%. Given the global interest rate cycle there was a trend towards more FRN issuance in recent years in many jurisdictions and the share of FRN CBs issued in 2018 rose to nearly 30% (EUR 144 bn). In 2019, the share of FRN issuance was 22% (EUR 118 bn). However, as can be seen in Exhibits 2 and 3, FRN issuance varies greatly by country.

> Figure 2: Outstanding Covered Bonds Floating vs Fixed Coupon (EUR million, 2019)



Source: ECBC Factbook Data 2020

> Figure 3: Issuance Covered Bonds Floating vs Fixed Coupon (EUR million, 2019)



Source: ECBC Factbook Data 2020

The highest proportion of CB floaters has Italy, where they indeed outnumber the fixed rate bonds by a large margin (3x in terms of issuance, 1,7x in terms of outstanding as of 12/2019). Other Euro-jurisdictions with a high share of floaters are Spain, Austria, Portugal, Ireland and Greece; outside the Eurozone UK, Denmark and Norway stand out with a high share of floaters. This often correlates with the structure of the underlying mortgage markets, i.e. a large portion of variable rate mortgages. For these, the new benchmarks are also of immediate relevancy, both for existing loans maturing after 2021 and of course new loans that are originated during the current transition period.

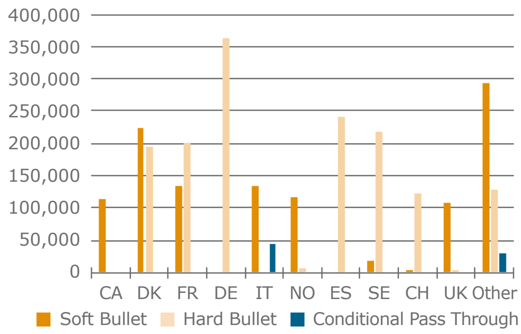
We note that for some of the above-mentioned countries, particularly the southern Europeans, the majority of the issued covered bonds in recent years were retained by banks and used in interbank repo transactions and in transactions with the Eurosystem. The bonds placed in the market with investors to-date are mostly issued with a fixed rate, to conform to the preferences of what we think is the typical covered bond investor.

In contrast, France, Germany and The Netherlands, being among the top five covered bond markets, are all dominated by fixed rate issuance (floaters accounting for less than 10%) and thus will be much less affected by the transformation issues. Here fixed rate product also largely dominates the underlying mortgage markets to-date.

SOFT BULLET MATURITY STRUCTURES

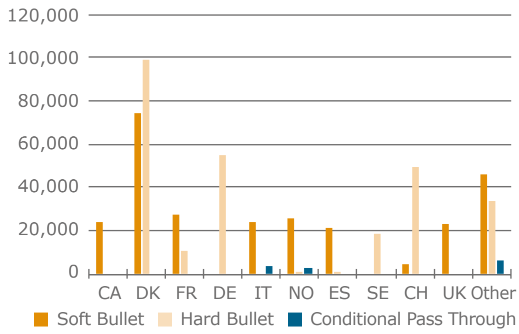
In recent years, extendable maturity structures have become a quasi-standard in the CB universe. Typically, the format of extension is a soft bullet (SB) structure, by which the regular maturity date can extend by 12 months (See the Article *Extendable Maturity Structures – The New Standard* in ECBC Fact Book 2019 for more details). During the extension period, any fixed coupon in most cases reverts to a floating rate coupon with a pre-determined spread. As such, the floater element and benchmark transition comes into play even in bonds issued with a fixed coupon. While the share of outstanding SBs is currently around 40%, the share in new issues has grown recently to about 50% - 55%, SBs have been the majority of global CB issuance since 2015.

> Figure 4: Outstanding Covered Bonds Soft / Hard Bullet, CPT (EUR million, 2019)



Source: ECBC Factbook Data 2020

> Figure 5: Issuance Covered Bonds Soft / Hard Bullet, CPT (EUR million, 2019)



Source: ECBC Factbook Data 2020

In fact, there are only a few jurisdictions, where hard bullet (HB) maturities prevail as the dominant or exclusive format: namely Germany, Spain and Sweden. Also in Denmark, a significant share of issuance is still in HB format.

For all SB structures outstanding with maturities beyond the phasing out deadlines of the old LIBORs, we believe the same transition issues need to be considered as for those bonds that were issued as a FRN from the outset.

EUR LIBOR, EURIBOR / EONIA TO €STR TRANSITION STATUS QUO AND PROGRESS

The new and reformed EURIBOR

The European Money Markets Institute (EMMI) – in its capacity as the administrator of EURIBOR – started the process of reforming the expert judgement-based EURIBOR early on. In particular, the calculation methodology was to be changed to one that is underpinned to the greatest extent possible with transaction data. In the end, EMMI developed a hybrid methodology which consists of a three-level waterfall prioritising the use of real transactions whenever available and appropriate, and relying on other related market pricing sources when necessary and thus draws on expert judgement in the absence of sufficient transactions.

The reformed EURIBOR reflects borrowing activity in the unsecured money market (i.e. not only the interbank market but now also transactions with financial counterparties outside the banking sector and with general government), while the calculation continues to be based on the voluntary contributions from a panel of banks. EMMI completed the phase-in of EURIBOR's new methodology in November 2019. Against this background, EMMI had already received authorisation from the FSMA as the administrator of EURIBOR in July 2019, in application of the BMR.

Hence, EURIBOR is considered a BMR compliant RFR and can continue to be used for existing and new contracts/ instruments until further notice. In contrast, users of EUR LIBOR need to prepare for the discontinuation of rates after the end of 2021.

While the EUR FRN CB market has an outstanding volume of about EUR 380 bn (source: Bloomberg, as of June 2020), an estimated more than EUR 1 tn (source: Bundesbank Monthly Report March 2020) of floating rate retail mortgage loans are currently outstanding, mainly in Spain and Italy. Most of them are referenced against EURIBOR, and against this backdrop, the effort to reform the existing benchmark seems very worthwhile, as it saves the market participants from the need to migrate millions of retail mortgage contracts to a new benchmark.

FALLBACK SOLUTIONS ARE NEEDED NEVERTHELESS

Even though the reformed "new" EURIBOR can continue to be used as a reference interest rate beyond 2021, market participants should be prepared for all situations, including the cessation of EURIBOR due to a lack of panel banks or liquidity. EURIBOR's long-term viability will depend crucially on the administrator and the willingness of the panel banks to continue contributing to the calculation as well as on the liquidity of the underlying market going forward.

As the Bundesbank recently observed (Monthly Report 03/20), manipulations, the more stringent international requirements for contributors to benchmarks and the associated legal risks have significantly dampened banks' willingness to contribute to the production of reference rates in recent years. Accordingly, 26 banks have left the EURIBOR panel since 2012, taking the current total to 18. These include currently

> Banks from EU countries participating in the Euro: Belgium, France, Germany, Italy, Luxembourg, Netherlands, Portugal, Spain;

> Banks from EU countries not participating in the Euro: UK;

> while the international non-EU banks (but with important Euro zone operations) are among the 26 banks that have left the panel.

Ove the same period, membership of the EONIA panel fell by 15 to 28 banks at last count. This is also a reflection of the overall reduced market liquidity, as unsecured trading activity between banks (interbank trading) has decreased considerably in past years.

In order to fulfil the IOSCO Principles and the requirements of the BMR, contracts must contain provisions for the event that the benchmark used ceases to be provided. Therefore, robust fallback solutions should be integrated into existing contracts where possible.

While market participants await recommendations for specific fallback provisions, a generic fallback provision, as per below, may be considered for inclusion in contracts (Source: Working Group on €uro Risk-Free Rates, 06/20):

"Unless otherwise agreed by the parties, the EURIBOR replacement rate will be the rate (inclusive of any spreads or adjustments) formally recommended by

(i) the working group on euro risk-free rates established by the European Central Bank (ECB), the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission, or

(ii) the European Money Market Institute, as the administrator of EURIBOR, or

(iii) the competent authority responsible under Regulation (EU) 2016/1011 for supervising the European Money Market Institute, as the administrator of the EURIBOR, or

(iv) the national competent authority designated by each Member State under Regulation (EU) 2016/1011, or

(v) the European Central Bank."

€STR AS RECOMMENDED FALLBACK SOLUTION BY WORKING GROUP ON €URO RISK FREE RATES

For the euro area, the introduction of the €STR marks the first big step in the path of reform towards using robust risk-free reference rates. It is now in the hands of market participants across the board to actively pursue the use of the €STR and establish liquid, €STR-based markets. At the same time, workable €STR-based fallback provisions need to be incorporated into contracts referencing EURIBOR in order to improve their robustness, as it is currently recommended by the WG on €uro Risk Free Rates. In future, market participants could likewise consider using the €STR or €STR-based term rates as a direct alternative to EURIBOR for certain instruments or contracts.

However, the euro area working group's work on €STR-based fallbacks for EURIBOR has not yet been concluded, particularly the transformation of the overnight rate into a term rate up to 12 months as we have with EURIBOR is still under discussion. Several approaches can be employed, in analogy to the other RFRs, using either a backward-looking or forward-looking calculation method (the latter is the case for the IBORs incl. EURIBOR).

This, among other things, contributes to the fact in our view, that to-date, only a handful of issuers including the German agencies LBANK, EIB, KfW, as well as French BCFM have piloted EMTN issues referenced against €STR so far for a total outstanding volume of a mere EUR 3,9 bn (Source: Bloomberg).

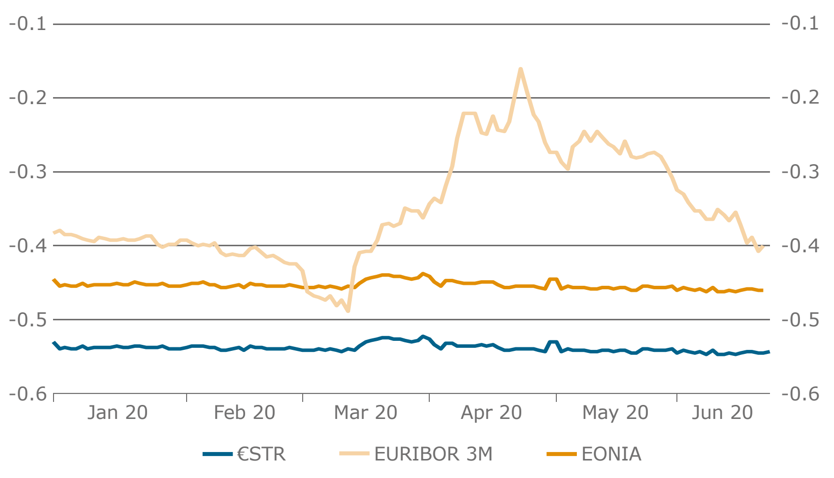
EONIA TRANSITION TO €STR

EONIA does not meet the regulatory criteria required to comply with European Benchmark Regulation and will be published for the last time on 31 December 2021. Since 2 October 2019, EONIA has been published daily on the basis of a reformed determination methodology, which is €STR + 8.5 bps. EMMI will continue to publish EONIA every TARGET day until 3 January 2022, the date on which EONIA will be discontinued.

EONIA is not typically referenced in bonds, but there was some limited usage of EONIA in the European repo market. Firms must prepare for EONIA's cessation at end-2021 in order to avoid legal uncertainty regarding the terms of their transactions once EONIA ceases to be published.

Thus, market participants with outstanding EONIA-linked transactions need to amend their legacy EONIA transactions, either to include industry-standard fallbacks or amend the reference rate from EONIA to €STR (and agree on a compensation exchange with their counterpart) or €STR + 8.5bps.

> FIGURE 6: EURIBOR, EONIA AND €STR CONVERSION

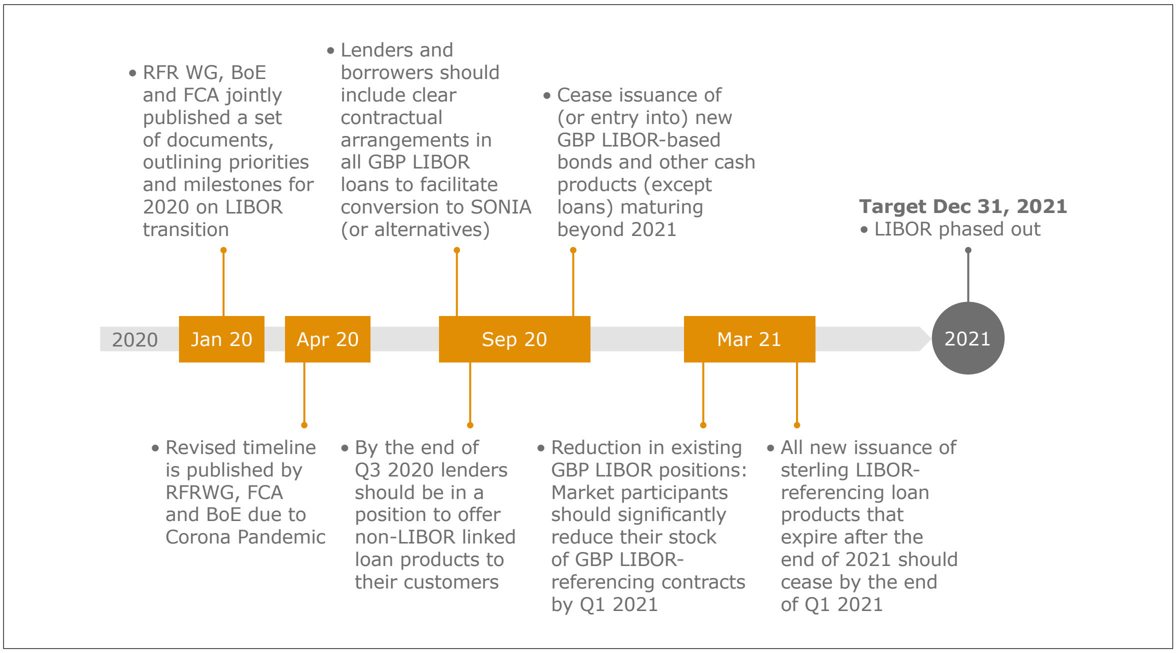


Source: LBBW Research, Refinitiv

GBP LIBOR TRANSITION TO SONIA STATUS QUO AND PROGRESS

The UK's Financial Conduct Authority (FCA) and the Bank of England (BoE) are pushing hard for the institutions they regulate to replace LIBOR with new reference interest rates – particularly SONIA – by the end of 2021. Within sterling cash markets, transition to SONIA in the bond market has been largely completed. In this respect, the UK market is well ahead of its peers, helped by the fact that SONIA is a long-established (reformed) RFR. In the loan markets, including mortgage loans, lenders are asked to continue to work in order to make SONIA-based products available before the end of Q3 2020 and some borrowers will be ready to take advantage of these alternative products before then. Market makers are asked to change the market convention for GBP interest rate swaps from LIBOR to SONIA in the current quarter. The market-led Working Group on Sterling Risk-Free Reference Rates (RFRWG) has made it a priority to stop issuing LIBOR-based cash products by the end of Q3 2020, which the regulators applaud.

> Figure 7: Timeline for GBP LIBOR transition – Key Milestones set by RFR Working Group



Source: LBBW, RFRWG

The Bank of England will penalise Libor-linked cash products maturing after 2021 in its liquidity injection operations, with additional haircuts to come into effect after 3Q20, and they will increase progressively.

The LIBOR transition particularly affects UK covered bonds issued as floaters (as well as the investors holding the bonds). The percentage of floating-rate covered bonds has increased considerably in recent years. Ten years ago, floaters made up only 10% of new issues. In the years since 2017, they have accounted for roughly 2/3 of issuance (cf. Figure 3). Floaters now make up 34% of the total outstanding value of UK covered bonds.

ISSUANCE OF NEW SONIA-LINKED COVERED BONDS

As of June 2020 we count an aggregate of GBP 57 bn worth of SONIA-referenced FRN bonds issued in the UK market, of which more than half, GBP 30 bn, are covered bonds (Source: Bloomberg). The last GBP LIBOR-referencing UK covered bonds were issued in April 2018; since then, institutions have only been issuing SONIA floaters. In contrast, nearly all the fixed-rate issues have been denominated in foreign currencies, particularly in EUR (84% cumulatively over the years). The upcoming benchmark transitions for other currencies (such as EURIBOR "new" and €STR in EUR, SOFR in USD) also affect the UK covered bond market since the soft bullet structures for the potential extension periods use a floating rate coupon whose benchmark will then also have to be changed.

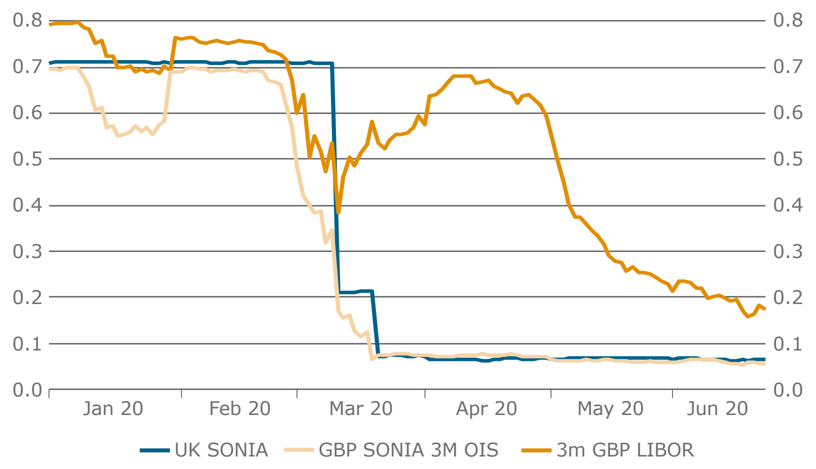
Another highly important aspect in the transition process is the use of asset swaps to hedge the interest rate risks in the UK cover pool assets versus the funding instruments, i.e. the covered bonds. In the past, the asset swaps would be concluded on the basis of LIBOR and would constitute an integral part of the respective covered bond issuer's funding structure. Since the new FRNs issued since 2018 reference SONIA, the asset swaps will also have to be restructured in order to avoid a mismatch of the referenced benchmarks. Certain issuers have already taken the plunge and restructured their asset swaps, resulting in the generation of two separate SONIA and LIBOR referencing cash flows in proportion to the SONIA and LIBOR covered bonds. One issuer has already implemented an asset swap for the cover pool based on SONIA, which eliminates the need for a separate hedge for the SONIA bonds. Another has a cover pool swap that does much the same thing by paying a weighted SONIA/LIBOR interest rate that corresponds to the percentage share referenced to SONIA.

TRANSITION OF LEGACY TRANSACTIONS

The industry-led RFRWG has made progress on its implementation plan in the past two years, but many details with respect to the transition of legacy transactions (bonds, loans etc.) are only being tested now. The new reference rate that replaces LIBOR is based on the SONIA Overnight Index Swap rate (SONIA OIS). Transitioning to the new interest rate will require fair spread adjustments for each legacy LIBOR contract in order to prevent economic value from transferring between the parties (and thereby creating winners and losers). Irrespective of the new interest rate, a spread adjustment will require a permanent change to the contracts. How this plays out in practice is being tested as the issuers are initiating their transitions one-step at a time. The transitions completed thus far have been based on the interpolated maturity-adjusted basis between the original LIBOR benchmark (e.g. 3M GBP LIBOR) and the daily SONIA rates compounded over the same period (e.g. 3 months) in arrears.

It is our understanding that, out of the UK covered bond issuers, most have already successfully executed solicitations for bondholder consent to the bondholders for their covered bonds being affected. Since the change is being made in response to political/regulatory requirements, bondholders have been asked to grant their consent without receiving a consent fee, especially because the ultimate goal is to organise the transition to have the smallest possible impact on the market values of the bonds.

> Figure 8: GBP LIBOR and SONIA conversion



Source: LBBW Research, Refinitiv

RATING AGENCY ASSESSMENT OF UK CB TRANSITION TO SONIA

In an April 2019 article, Moody's welcomes the growth in issuance of GBP SONIA covered bonds for various reasons and labels the trend as broadly credit positive (Covered bonds – UK: Robust demand for Sonia issuance is credit positive, 24 April 2019, Moody's). The agency believes the risk of currency mismatches has been reduced, particularly as Brexit unfolds, since the funding is denominated in local currency and strengthened by the domestic investor base. Foreign holders of UK covered bonds may be at more or less of a disadvantage, depending on the underlying exit scenario, which in turn could result in higher funding costs for UK mortgage lenders.

Moody's highlights the previously addressed interest rate mismatches between variable-rate cover pool assets and the fixed-rate covered bonds. This risk is normally hedged by interest rate swaps, but we believe a matched funding profile would be more effective and affordable and thus render issuers less sensitive to changes in interest rates.

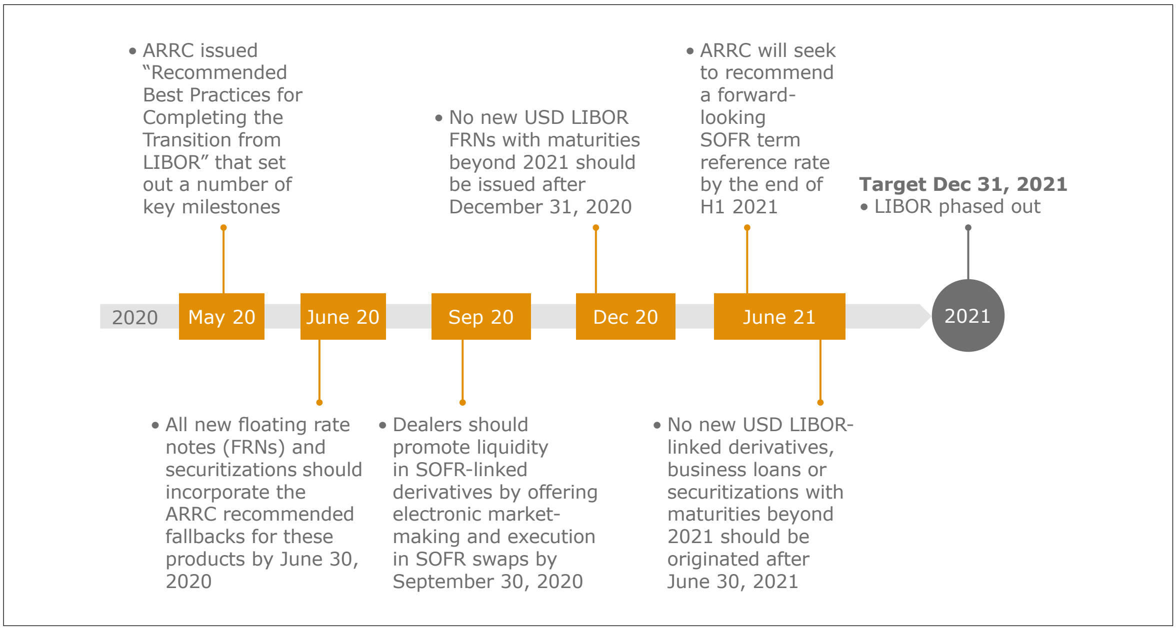
Standard & Poor's expects the switch to the new benchmark will be kept largely value-neutral by the underlying mechanism and so will be credit neutral for bondholders in economic terms. However, S&P is unwilling to rule out rating impacts from the operational challenges of switching the various bonds, cover pool assets and asset and interest rate swaps over to SONIA at the transaction level.

USD LIBOR TRANSITION TO SOFR STATUS QUO AND PROGRESS

In the U.S., the Alternative Reference Rates Committee (ARRC), a group of private sector market participants and public sector officials, was convened by the Federal Reserve Board and the New York Fed to ensure a successful transition from USD LIBOR. The ARRC selected the Secured Overnight Financing Rate (SOFR), which is a broad measure of the cost of borrowing cash overnight in the U.S. Treasury repo market, as the recommended alternative RFR to USD LIBOR.

The final conventions for SOFR-based FRNs, loans and securitisations should have been established by mid-2020, and it is expected that liquidity in SOFR-based derivatives & cash products grow and, as market participants adopt the ARRC's recommendations, expect this growth to accelerate throughout 2020 and 2021 and impact liquidity in USD LIBOR.

> FIGURE 9: TIMELINE FOR USD LIBOR TRANSITION – KEY MILESTONES SET BY ARRC



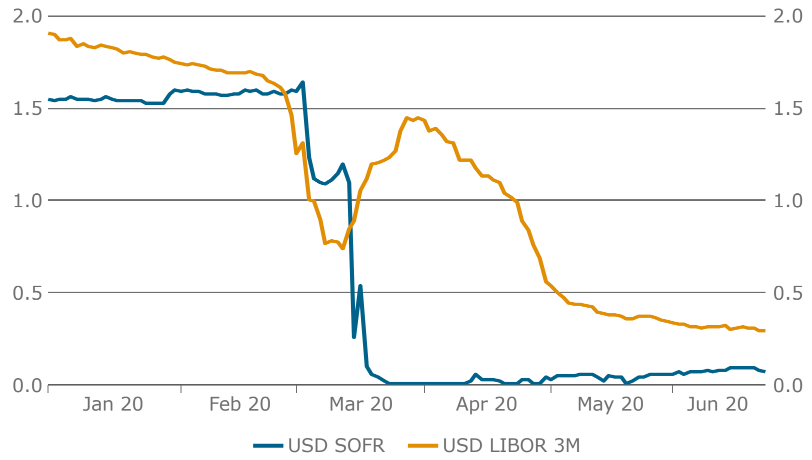
Source: LBBW, ARRC

TRANSITION OF USD LIBOR LEGACY TRANSACTIONS

Currently USD 180 bn worth of debt referenced to SOFR is outstanding (Source: Bloomberg), mainly unsecured bank debt, with no CBs so far included. In order to assess the legacy CBs that need to be amended to the new SOFR-based reference rate, we currently count 26 USD-denominated FRN CBs. Out of these, 16 are maturing in 2022 and beyond, for a total outstanding volume of USD 7.9 bn. All of them come from European issuers, mainly Spain and Germany.

In cooperation with the Treasury Department's Office of Financial Research, the New York Fed is now publishing three daily compounded averages of SOFR in arrears: "30-day Average SOFR", "90-day Average SOFR", and "180-day Average SOFR", in addition to a daily index that allows for the calculation of compounded average rates over custom time periods: the "SOFR Index".

> Figure 10: USD LIBOR and SOFR conversion



Source: LBBW Research, Refinitiv

SUMMARY AND OUTLOOK

In the three main currency areas, we see a very different speed and development concerning the transition to the new RFRs. The UK market seems to be leading ahead, with new issuance of FRN bonds referenced against SONIA and legacy bonds being migrated by amending the docs via investor consent solicitations. This process was clearly helped by incentives given by the BoE, namely to increase the haircuts of bonds still referencing the old LIBOR. At the other end of the progress spectrum seems to be the EUR market, where a large retail market linked to EURIBOR made it appear difficult to migrate to €STR with the same rigor as in the UK. Thus, the reformed EURIBOR can remain in play for the foreseeable future, as long as panel banks and market participants support it with quotes and liquidity. €STR meanwhile is being developed as a fall back solution. The USD market finally stands in the middle, with SOFR being widely adopted as the new overnight benchmark for new short term unsecured bank funding. For covered bonds, the final say about which approach towards a RFR-term rate is adopted will be one of the decisive factors determining the speed of transition. Overall, the global CB markets will increasingly need to concern themselves with the technical and legal issues of IBOR transition in the coming 18 months, as per December 2021 most of the existing IBOR benchmarks will be phased out and legacy bonds and loans need to be migrated to new RFRs by that date.

1.9 DIGITALIZATION OF COVERED BONDS: OPPORTUNITIES AND CHALLENGES

By Karsten Rühlmann, LBBW

Even before the coronavirus, the topic of digitalization was increasingly coming to the attention of banks and fi-nancial institutions. The outbreak of the Covid-19 pandemic could now act as an additional catalyst. Firstly, numerous employees in the home office show that remote working away from the office definitely works. Secondly, many customers have discovered – or perhaps been forced to discover in some cases – the digital world and the wide range of possibilities offered by online banking and brokering. Besides these effects, increased loan defaults as an economic effect of the coronavirus crisis can be expected to bring banks' already strained profitability under further pressure. Fintechs, which have partly developed into serious competition for established banks in recent years, are also likely to take advantage of consumers' growing digital know-how to further expand their customer base. The coronavirus crisis could thus also be seen as a wake-up call firstly to make existing processes more efficient, and secondly to establish new business sectors based on new technologies.

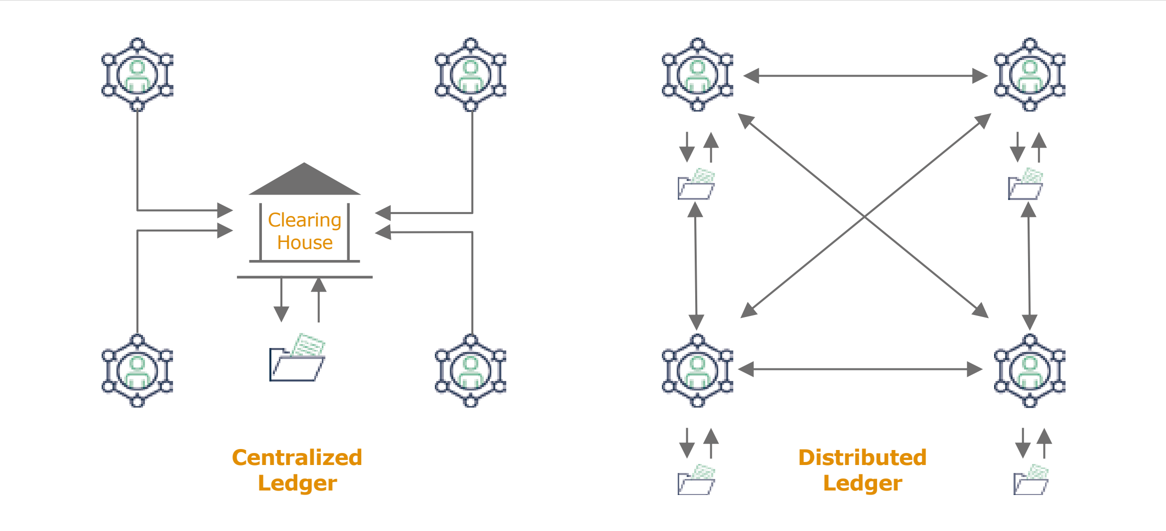
One technology that has repeatedly been cited as a disruptive element for the world of finance in recent years is distributed ledger technology (DLT), the best-known example of which is blockchain. In this context, one of the main characteristics of the DLT – the possibility to completely abolish intermediaries – is often stressed. Banks act as intermediaries between industry and business in many different ways, so based on this characteristic there is considerably high potential for disruption in the financial sector. The following article looks at DLT and associated technologies in more detail. In addition, it examines applications in the finance industry and the covered bond sector that are already in the implementation phase. Finally, it discusses further potential uses along the covered bonds value chain.

DISTRIBUTED LEDGER TECHNOLOGY AND BLOCKCHAIN – DEFINITIONS

Although the first blockchain application, "bitcoin," was launched over 12 years ago, the modern DLT development no longer has much in common with the original idea. The bitcoin position paper "Bitcoin: A Peer-to-Peer Electronic Cash System," which was published in 2008 under the pseudonym Satoshi Nakamoto, focused on the creation of an exclusively peer-to-peer payment network that would facilitate electronic payment transactions between two parties without involving a financial institution. This was driven by fundamental skepticism toward banks and central banks. Nowadays, blockchain technology is instead seen as a primarily technological phenomenon that may have a decisive influence on many areas of society and business. There is consequently a wide range of potential applications in many different industries besides the financial sector.

Based on the literal meaning, distributed ledger technologies can be understood as transaction databases that are distributed and managed on a decentralized basis and essentially represent the "accounting system" of the digital world. Whereas in a central database structure each interaction takes place via a decision-making entity such as a bank, in a DLT structure the transaction is saved and validated on all computers in a network simultaneously. All network participants are essentially equal in this context. The transaction is validated based on a consensus mechanism that is predefined in the protocol. If all computers in the network agree that a transaction is authentic and permissible, then it is simultaneously incorporated in encrypted form in all copies of the ledger.

> Figure 1: Comparison of centralized ledger vs. distributed ledger technology



Source: LBBW Research

DLT thus serves as an umbrella term for many different "distributed database technologies," with blockchain representing just one variety – albeit the most popular. It should be emphasized here that neither DLT nor blockchain constitutes a separate technology in its own right, but rather they are made up of a combination of several existing technologies such as cryptography, P2P network technology, and game theory.

Blockchain technology is characterized by a process whereby transactions that have taken place in a specific period are gathered, grouped together in a "block," and saved chronologically in a "chain". First, a transaction is generated and digitally signed by a sender. This transaction is then sent to a peer-to-peer network and distributed to the participating nodes. Some of the nodes – known as "miners" – which are paid for this service, check the validity of the transaction and finally add it to the blockchain. Each block is marked with a hash that serves as the digital signature of the block and its content. As well as the time stamp and the transaction data, each block also contains the hash value of the previous block. This makes it almost impossible to manipulate the blockchain, as any attempt at manipulation would result in a change in the content of a block and thus also in the hash value. Because a digital copy of the blockchain is saved on a decentralized basis with each of the network participants, any manipulation would be detected as part of the consensus mechanism when verifying the subsequent block. This also means that all transactions recorded on the blockchain are unalterable. To reverse a transaction, an offsetting transaction on the blockchain would be needed, which in turn would require a shared consensus.

The basic structure of the blockchain gives rise to a wide variety of benefits that are extremely important for the further development of blockchain-based applications. These include:

> the **irreversibility** of transactions, which protects against attempted manipulation,

> complete **transparency** of all transactions, which allows for clear verifiability, e.g. in terms of the current ownership rights,

> a **decentralized structure**, which reduces complexity and therefore increases the processing speed by doing without intermediaries,

> the associated **redundancy**, which ensures that the failure of a node can be regarded as non-critical as the data are saved with all blockchain participants,

> automated **building of trust** in the context of the consensus mechanism.

In contrast to the traditional internet, which serves to transfer information only, blockchain thus allows for the secure digital transfer of assets thanks to the characteristics specified above.

SMART CONTRACTS AND TOKENS AS THE BASIS FOR APPLICATIONS IN THE FINANCE SECTOR

For the finance industry, specific applications arise from the possibility of automation via smart contracts and the representation of assets using "tokens" on the blockchain.

A smart contract is a conversion or technical implementation of an analog civil contract in the digital world. In a narrower sense, smart contracts are computer programs that manage corresponding tokens, i.e. computer programs that act as digital securities, and trigger conditional, automated payment and business processes on the blockchain. In extreme cases, combinations of different smart contracts can create entirely computer-managed companies known as decentralized autonomous organizations (DAOs) or decentralized autonomous corporations (DACs).

In the blockchain environment, tokens serve as vehicles for mapping real assets from the analog world. In contrast to the current electronic administration in a central ledger, tokenization involves decentralized digital mapping of real assets. According to the German Federal Financial Supervisory Authority (BaFin), tokens are digital assets that are saved in a DLT. On the one hand, tokenization can be based on real assets that already exist off-chain. In this case, assets that already exist in the real world (e.g. equities, real estate, securities, commodities, gold) are mapped digitally in the DLT or blockchain using tokens and their specifics are saved on the blockchain. The tokens thus represent rights to these assets. They are kept in digital wallets or collective custody. By contrast, "native" tokens are created directly in the DLT and thus exist only in this system. This means that they are not backed by assets outside the DLT. Examples of "native" tokens include bitcoin and tokens that are issued in the context of start-up financing in "initial coin offerings" (ICOs).

Depending on their function, attributes and the associated rights, tokens are generally divided into three categories: payment tokens, utility tokens, and security tokens.

Payment tokens are used solely for the purpose of payment. They originate from "cryptocurrencies," of which bitcoin is among the best-known examples. Since the first bitcoins were issued in early 2009, the range has expanded to almost 3,000 different cryptocurrencies. Because cryptocurrencies are not issued by a specific issuer, they do not constitute a financial claim against a natural or legal person. Furthermore, their high volatility conflicts with their intended purpose as a reliable store of value or unit of account. Cryptocurrencies are therefore currently used more for speculative purposes than as means of payment.

To counter the disadvantage of high volatility, cryptocurrencies have in some cases been developed into "stable coins". These are cryptocurrencies that are backed by real assets (such as gold) or by one or more fiat currencies[1] such as EUR, USD, or JPY. Unlike traditional cryptocurrencies, stable coins are usually issued by a clearly defined issuer that also takes responsibility for securing the issued coins. Other varieties of stable coins include those that are backed by other cryptocurrencies and those that use algorithms with the aim of achieving stabilization by automatically balancing supply and demand.

Probably one of the best-known stable coin projects is the Libra coin initiated by Facebook. In this project, the social media platform originally planned to launch an independent cryptocurrency in cooperation with other major market participants in the digital industry. The Libra coins were to be issued in exchange for payments in fiat money. This in turn was to be invested in short-term government bonds and bank deposits, which would

1 a currency that is officially established as money, often by government regulation, but that does not have intrinsic value

be used as a stabilizing reserve. The plan drew some fierce criticism, particularly from politicians and regulators, with the effect that major participants such as Paypal, Mastercard, Visa, and eBay backed out before the official establishment of the Libra Association on 14 October 2019. In response to the many criticisms, another white paper on "Libra 2.0" was published at the end of April 2020. Instead of a global Libra coin managed on a decentralized basis, the participants now plan to introduce Libras for individual currencies that will map these currencies 1:1. They initially intend to start with EUR, USD, GBP, and SGD. The global Libra coin as the basket-currency Libra will represent only an aggregation of the individual-currency Libras. In addition, they plan to use the Libra platform as a basis for the use of central bank digital currency (CBDC) in the future.

In the finance sector, it has so far mainly been American banks that have attracted attention with projects for digital currencies. For example, JP Morgan, Signature Bank, and Wells Fargo have each launched their own "digital USD". This is intended to allow these banks' customers to make real-time payments via a blockchain in the future.

One example of a global initiative in this area is the Utility Settlement Coin (UTC) from Fnality International – a consortium of 15 major financial institutions (Banco Santander, Bank of New York Mellon, Barclays, CIBC, Commerzbank, Credit Suisse, ING, KBC Group, Lloyds Banking Group, Mizuho Bank, MUFG Group, Nasdaq, Sumitomo Mitsui Banking Corporation, State Street Bank & Trust, and UBS). It initially plans to launch five local coins (CAD, EUR, JPY, GBP, and USD), each of which will be managed by a local Fnality consortium. The coins will be covered by a claim in the respective currency. They will be issued in exchange for payment of a corresponding currency equivalent. Payment processes will then be handled via the relevant local Fnality blockchain.

Not least as a result of these private-sector initiatives, many central banks are currently exploring concepts for the introduction of a digital currency. In this context, the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, Sweden's Riksbank, and the Swiss National Bank together with the Bank for International Settlements (BIS) founded a group at the beginning of 2020 to discuss potential application areas for a central bank digital currency (CBDC) and assess the functional and technical design options. According to the BIS Quarterly Review for Q1 2020, a total of 17 central banks worldwide had dealt with CBDC projects as of February 2020. These included eight central banks from Europe: Iceland, Denmark, Norway, Sweden, France, Switzerland, Ukraine and the ECB. The other central banks are based outside Europe. One focus area of these projects is which technology (blockchain vs. conventional technologies) seems the most expedient. In addition, legal, financial, and political risks are examined. The allocation of roles when issuing the CBDC – e.g. between central banks and commercial banks – also plays an important role. After all, there could be a risk that the creation of CBDC in the form of a digital account for private customers at the central bank, and thus also the potential option for private individuals to hold deposits at the ECB, could lead to banks losing an important source of refinancing in the form of retail deposits. On the other hand, there could also be an opportunity for banks to benefit from a new role in their capacity as intermediaries in the case of a collaborative establishment of CBDC. For example, central banks could be responsible for issuing DLT-based CBDCs. Banks, in turn, are responsible for operating a blockchain that processes customers' CBDC payments. The Chinese central bank has taken on a pioneering role when it comes to developing a DLT-based CBDC. While European central banks are still in the design phase, China started the pilot phase with the digital currency DC/EP (digital currency/electronic payments) – i.e. with a digital yuan – in April 2020 already.

The establishment of standardized payment tokens is an important prerequisite for creating fully automated business processes on the blockchain. This firstly relates to fully automated machine payments in the industrial sector, but payment tokens could also help in the finance sector, for example by contributing to fully automated issues of digital securities. As such, it would be beneficial to press ahead rapidly with the European initiatives in this field, too.

When it comes to differentiating between utility and security tokens, there is particular focus on the token's function, which is consequently also decisive for its legal classification, e.g. as a security or financial instrument.

Utility tokens are crypto tokens that grant the holder access to certain services or products similar to an admission ticket or voucher. However, they generally do not grant any right to dividends or other financial benefits or voting rights. Due to these characteristics, utility tokens are subject to lower regulatory requirements. The German Federal Financial Supervisory Authority (BaFin) accordingly stated in an "advisory letter on prospectus and authorization requirements in connection with the issuance of crypto tokens" dated 16 August 2019 that utility tokens generally do not constitute securities as defined in the German Securities Prospectus Act (WpPG) or investment products as defined in the German Investment Products Act (VermAnlG) and in many cases also are not financial instruments in accordance with the German Banking Act (KWG). Start-ups in particular have taken advantage of this in recent years, using utility tokens to raise capital in the context of initial coin offerings.

By contrast, holders of security tokens are entitled to equity or debt claims against the issuer of the token, which are comparable to those of a shareholder or a holder of a debt instrument (e.g. claims similar to dividends, voting rights, interest). In the above-mentioned advisory letter, the BaFin concludes that security tokens generally constitute securities as defined in the VermAnlG, the WpPG, and the German Securities Trading Act (WpHG) and are also to be classified as financial instruments in accordance with the KWG.

Recently, financial institutions have increasingly been looking into the possibilities of security tokens in particular. Accordingly, there is a great need for regulatory clarity and security. In this context, many different initiatives have been launched at both national and international level.

For example, the German federal government is seeking to open German legal provisions for electronic securities as part of its blockchain strategy. The requirement for a security to be embodied as a document in kind in paper format is no longer to apply as a general rule. Instead, electronic securities are to be regulated on a technology-neutral basis, meaning that it will be possible to issue them on the blockchain in the future. The focus will initially be on electronic bonds in the first step, before examining the introduction of electronic shares and investment certificates in a second step. The original aim was to publish a bill before the end of 2019. However, questions related to the civil-law concept for the transfer of electronic securities and their legal nature delayed it with the effect that no bill has been presented yet at the time of writing. The importance of this issue also became clear at the beginning of the year 2020 with the amendment of the German Banking Act (KWG), prompted by the 5th EU Anti-Money Laundering Directive. In this context, crypto custody business was added to the list of financial services in the KWG. Crypto assets were also included as a new financial instrument and defined in more detail, which is why they will also be subject to regulatory approval by the German Federal Financial Supervisory Authority (BaFin) in future.

The Principality of Liechtenstein has progressed much further, having adopted a blockchain law on 3 October 2019 that came into force as of 1 January 2020. The "Law on Tokens and TT Service Providers" (TTTL or in German TVTG, LGBl-Nr. 2019.301) focuses on fundamental aspects of a token economy, such as the creation and safe custody of tokens as well as minimum requirements for TT service providers. TT – as a synonym for blockchain – is an abbreviation for "transaction systems based on trustworthy technologies", to ensure validity for subsequent technology generations in the future, too. One key aspect of the TTTL is the introduction of the token as a new legal concept in Liechtenstein's legislation. In this context, it is clarified that the token constitutes only an asset transfer instrument embodying a respective right (uncertificated right). This allows to apply the respective traditional (securities) laws to the corresponding token, meaning that no specific integration for each token is required.

Developments regarding crypto assets and the associated potential of tokenization are also being monitored closely at EU level. It is therefore no surprise that these topics are also covered in the European Commission's final report on the development of the capital markets union dated 10 June 2020. The aim is to clearly categorize and define crypto assets in order to ensure targeted regulation and supervision. In this context, it will be examined how crypto assets are to be classified within the framework of existing EU legislation (e.g. MiFID II, E-money Directive – EMD) and, if necessary, corresponding amendments to the legal framework will be made by the end of 2020. Legislation for crypto assets that are currently not yet covered by the existing legal framework is also planned to be drawn up by the end of 2021 at the latest. In addition, the role that a trusted third party (TTD) could play in the DLT environment – as an intermediary between the off-chain world and the on-chain world – will also be examined.

COMBINING THE INDIVIDUAL MODULES INTO A CRYPTO ECONOMY

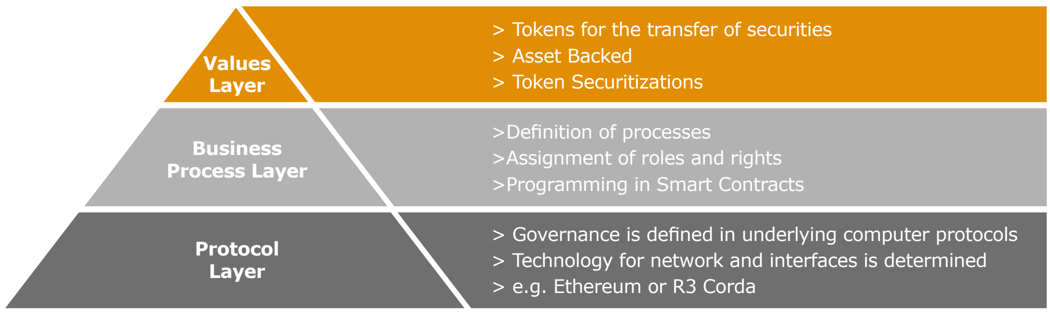
Overall, the design of blockchain applications as part of DLT systems should be viewed as a separate economy consisting of three layers.

In the first layer – the protocol layer – the protocol (e.g. Ethereum, R3 Corda) describes the basic communication and the general procedure. It is essentially the legal system of the crypto economy. The use of DLT technology gives rise to a neutral network between all participants. In contrast to conventional platforms, no central operator is required; instead, it is operated jointly by all network participants.

The protocol layer forms the basis for the transactions that are processed on the second level in the business process layer. This is where the counterparties using the protocol meet. The protocol can either be used by anyone (public blockchain) or only after being admitted (permissioned blockchain). The digital representation of the desired business processes is achieved by programming via smart contracts.

Finally, compared to conventional database management systems in the sense of electronic data interchange, the added value of blockchain technology is generally understood to be located in the third layer – the digital assets layer – which is implemented with corresponding tokens. By way of tokenization – also using smart contracts – real assets are converted into digital assets that are uniquely available on the platform due to the decentralized structure. These assets are passed on between the parties involved by means of the business processes defined in the second level. Uniqueness within the network ensures that each token can be issued and used only once, thereby preventing "double spending".

> Figure 2: Different layers of a crypto economy

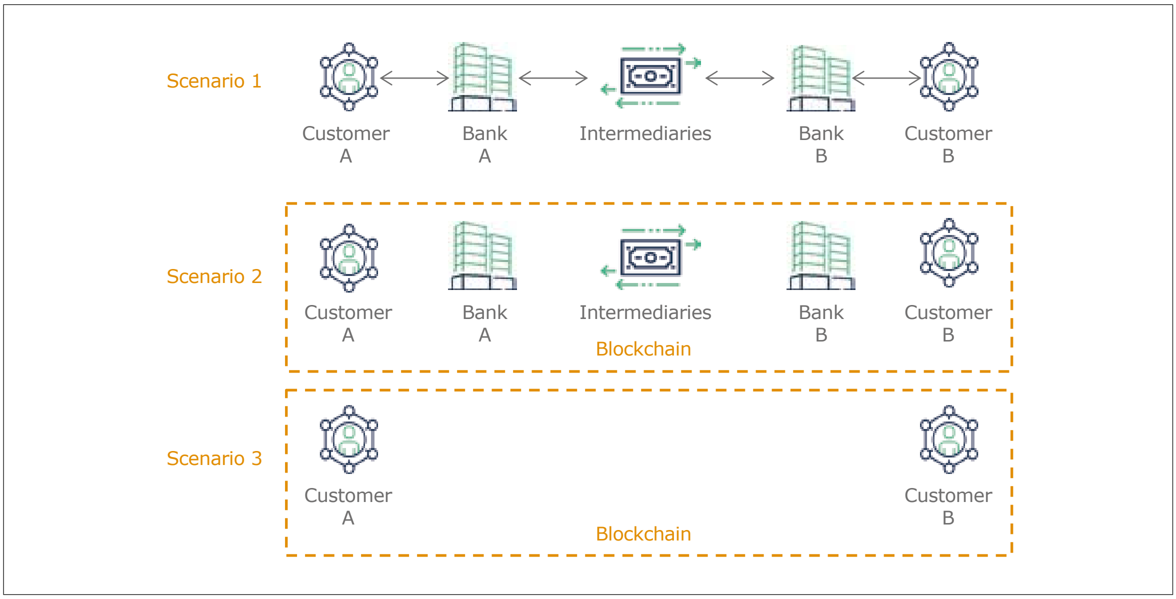


Sources: targens, LBBW Research

VISION OF AN OPEN BANKING WORLD

The original idea behind blockchain technology was to make financial institutions and the associated intermediaries redundant in a decentralized finance system (Figure 3, Scenario 3). However, high regulatory requirements, for example with regard to the "know your customer" principle and corresponding money-laundering regulations, mean that regulators will continue to insist on central responsibilities in the future, too. Furthermore, the lessons learned from implemented applications imply that not every central function of a financial intermediary can be meaningfully substituted by blockchain technology. An "open banking" scenario (Figure 3, Scenario 2) is thus much more likely to evolve in the future. In this context, blockchain technology is likely to contribute to a reshaping of both internal and external processes and an adjustment of financial players' roles more in line with the digital challenge. In jointly operated permissioned blockchain applications that require one-time authentication, efficiency gains can be generated by means of automated processes. Digital identities allow for clear allocation while also maintaining banking confidentiality. Cross-sector connections via blockchain applications could also contribute to further efficiency gains. The world as we know it today – with sometimes complex and manual processes (Figure 3, Scenario 1) – will thus most likely be transformed and overcome.

> Figure 3: Blockchain in the finance sector – different usage scenarios



Source: LBBW Research

USE OF BLOCKCHAIN TECHNOLOGY – THE CASE OF LBBW

LBBW has been looking into the potential applications of blockchain technology since 2016. In looking for suitable applications, the focus was initially on Schuldschein loan transactions. These are characterized by largely manual and individual processes that offered a high level of automation using blockchain technology.

In this context, the first step of the blockchain project was aimed at getting to know distributed ledger technology and its benefits thoroughly. An initial pilot transaction took place in June 2017 when a Schuldschein was issued for the first time using Ethereum blockchain technology for car manufacturer Daimler. In this test run, the Schuldschein of EUR 100m with a term of one year was placed with a total of three participating savings banks. The entire transaction was mapped on the blockchain in collaboration with the IT subsidiaries of Daimler (TSS) and LBBW (targens). Access took place via a decentralized customer portal. Due to the use of a permissioned/private blockchain, this was limited to an exclusive group of participants. Access rights were granted via a digital key pair – a public key and a private key. As well as the borrower Daimler and the investors (savings banks), the group of participants included the front and back office of the arranger (LBBW). Subscription certificates and contracts were confirmed digitally. In addition, smart contracts were used to initiate and execute a wide range of process steps on an automated basis, such as order book management, automatic preparation of loan agreements, and the confirmation of incoming payments. Decentralized data storage ensured that all parties involved in the Schuldschein transaction could share the same information at the same time. Another blockchain-based Schuldschein transaction with a term of one year and a volume of EUR 75 mn followed in February 2018 in cooperation with Telefónica Germany GmbH & Co OHG, a subsidiary of the Spanish telecommunications group Telefónica SA. With a total of 12 banks and savings banks, a double-digit number of investors were connected to the blockchain process for the first time, enabling the blockchain processes to be scaled up. As the regulatory environment did not yet allow for an exclusively blockchain-based Schuldschein placement at the time, the traditional paper-based settlement process was also required for both the Daimler and the Telefónica transaction.

A fully digitalized process finally became reality for the first time when the experience gained with blockchain-based Schuldschein processes was leveraged for a further product –Asset-Backed Commercial Paper (ABCP). The ABCP transaction took place in February 2019 between LBBW as the platform operator of the issuing company "Weinberg Capital DAC" – an LBBW issuing vehicle under Irish law – and the asset manager MEAG. This was the first time that a legally effective digital securities transaction was executed on the blockchain without a parallel paper-based process. As a result of largely doing without intermediaries, it was thus possible to shorten the issuing process from the usual two days to less than an hour. The EUR 1m money-market paper with a term of five days was processed using Corda R3 distributed ledger technology. For the first time, the entire payment process was also mapped via blockchain. In the absence of an established official payment token, a payment order token (POT) was created in addition to the ABCP token representing the security. In this context, LBBW set up a corresponding payment node that checked the availability of the specified investment amount in the investor's account and then blocked this amount. The POT created in this process was then sent to the investor. The actual ABCP transaction was then processed under smart contracts, which initiated the simultaneous step-by-step transfer of the ABCP token to the investor and of the POT to the issuer. To obtain the issue amount, the issuer sent the POT back to the payment node. The redemption of the security took place correspondingly in reverse order. The rating agencies Fitch and Moody's have both confirmed that the use of a DLT does not have any negative effects on the ABCP transaction's rating.

In a follow-up of the research on DLT in the financing area, a digital Schuldschein of Daimler AG in the amount of EUR 25 mn which could be processed completely digitally was issued for the first time in March 2020. For this purpose, the process was expanded with a digital signature procedure. As with the ABCP transaction, the Corda R3 blockchain protocol was used, too. The legally secure signature was ensured in a cooperation with the Bundesdruckerei as well as software provider Docusign and its service partner T-Systems – a subsidiary of Deutsche Telekom. The Schuldschein was marketed via the digital market platform Debtvision – a joint venture between LBBW and Börse Stuttgart. In a closed data room, investors received all data required for the transaction and were able to place their orders. For the first time, processing took place via the LBBW's DLT settlement platform linked to Debtvision. In this context not only was it possible to distribute the final transaction data to all participants in immutable form, without any media disruption and time lag, but also the transaction documents were generated largely from existing data and information on an automated basis. The Schuldschein was mapped with a "non-native" token in the LBBW DLT settlement platform which is anchored as digital token with evidentiary function for settlement. Tokens and files were saved in the network on a decentralized basis. Consequently, it was no longer necessary to exchange transaction documents between the individual contracting parties. As a result, time required for the settlement process was reduced by almost 50% compared to traditional settlement.

The possibility of applying DL technology for additional capital market products, particularly programming applications within the blockchain economy, is the focus of a wide range of further LBBW projects. This concerns the use in connection with the processing of financial transactions, including the integration of payment options on the blockchain. In addition, the topic of "digital identity" is examined which could not only be assigned to private persons and legal entities but also to machines. Particularly the latter could result in a quantum leap within the industry on the basis of cyber-physical machine networking for Industry 4.0 potentially entailing automated machine-to-machine payments and pay-per-use concepts. The applications citied are only examples for the demands of cross-sectoral blockchain concepts.

AS FIRST BANK IN THE COVERED BOND AREA SOCIÉTÉ GÉNÉRALE TESTS BLOCKCHAIN USE

In the covered bond segment, Société Générale was the first institution to debut a blockchain issue. On 18 April 2019, Société Générale SFH issued the first covered bond (EUR 100 mn, 5 year maturity) in the form of a security token that acts as a digital image of the covered bond and is thus subject to regulation. The token was set up on the blockchain protocol Ethereum. The bond was subscribed by the institution itself. Within this test, the cash settlement was still implemented in a traditional fashion i.e. without using a digital currency – as would have been the case with a conventional security. Like a classical security, the token has all legal rights. This was clarified by Société Générale legal advisors with the French supervisory authorities. The code of smart contracts was verified by internal and external auditors. The security token is maintained in custody on the basis of a "self-custody" solution. As a result, no central securities depository (CSD) is needed. Thus the custodian task is only to keep the blockchain access keys safe and ensuring a strong transaction signing governance. Allocating the positions at all times is also secured by decentralized storage on the blockchain – even if the original Société Générale transaction platform is down.

Both Moody's and Fitch confirmed the rating (Aaa/AAA) of the first digital covered bond. No negative effects as a result of the security token issue are expected. Neither its legal classification as a covered bond or OFH is impaired, nor are its structural characteristics arising from French covered bond legislation questioned.

The covered bond blockchain transaction was one of the first projects of FORGE, the in-house Société Générale start-up experimenting with blockchain technology to develop new digital capital market activities. The aim of this innovative transaction was to explore a more efficient process of issuing bonds. The institution expects blockchain technology to deliver numerous benefits, including increased scalability, computer code automation structuring, reduced marketing and settlement times as well as improved transparency. This should reduce cost as well as the number of intermediaries required.

Roughly a year later, on 14 May 2020, Société Générale SFH issued another covered bond for EUR 40m in the form of a security token. As with the first issue, the token was registered on the Ethereum blockchain and subscribed by the institution itself. However, in comparison to the blockchain debut in 2019, an additional feature was added with the bond being simultaneously settled in digital euros that were issued by Banque de France using a dedicated private blockchain platform. To do so, smart contracts were developed facilitating smooth communication between the bank's own Ethereum blockchain and the central bank's blockchain. In future, interoperability with other blockchains should allow settling capital market transactions with external customers and take account of the fact that they may be using other blockchain protocols. Using a CBDC-based settlement, the transaction was processed entirely using distributed ledger technology based on a wide range of smart contracts without any media disruption. Overall, this resulted in enhanced efficiency. Here the euro token represents a cash deposit at the Banque de France. Securities delivery triggers a simultaneous transfer of the payment token from the investor account to the issuer account. Both accounts are held at the French central bank. This does not result in additional money creation because the digital central bank token is destroyed at the end of the settlement day on which the payment is made.

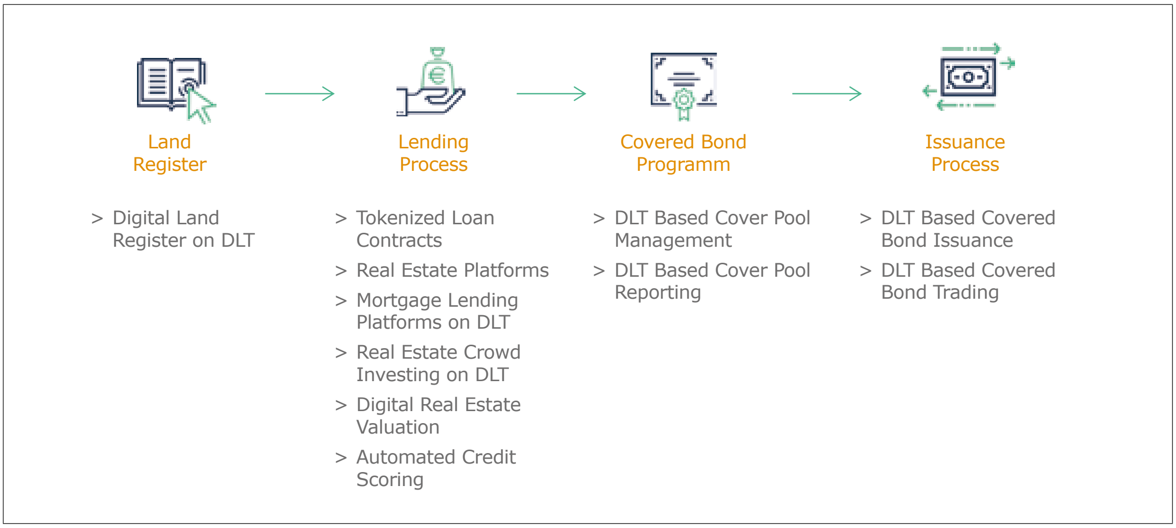
The transaction is part of a project initiated by Banque de France to test the usability of central bank digital currency. At the end of March 2020, it requested interested financial institutions to make applications on this topic with relevant use cases. Therefore, further CBDC transactions implemented by the Banque de France may be expected.

In the wake of its first digital covered bond projects, Société Générale also benefited from French legislation. Since the beginning of 2016, this has taken up the registration and transfer of securities using distributed ledger technology (French: Dispositif d'enregistrement électronique partagé =DEEP). An initial definition of blockchain technology took place in the context of an ordinance which allowed the deployment of DLT for so-called minibons (28 April 2016: Ordinance No. 2016-520). At the end of 2017, this was followed by a further ordinance which covered a broad universe of financial instruments for the DLT application (8 December 2017 Ordinance No. 2017-1674 "DLT Ordinance"). The go-ahead was finally granted with the implementation decree at the end of 2018 (24 December 2018: Decree No. 2018-1226 on the use of distributed ledger technology for the representation and transmission of financial securities and the issuance and transfer of short-term notes).

FURTHER SCENARIOS FOR DLT APPLICATIONS ALONG THE COVERED BOND VALUE CHAIN

Current applications relate primarily to issuing securities and corresponding settlement using alternative payment methods in the form of payment tokens. But the covered bond value chain also offers further points of contact where digitalization and also the deployment of blockchain technologies may enhance efficiency. This relates to processes both, within and outside the finance sector.

> Figure 4: Covered bond value chain – scenarios for DLT applications



Source: LBBW Research

Due to the immutability and the unequivocal transparent allocation of property rights, one could assume that DLT is predestined to be the basis for a digital land register. For example, related pilot projects from Estonia, Georgia, Dubai, Ukraine, Sweden, and the UK are already known. Although it is highly likely that intermediaries like notaries will continue to be indispensable especially for the validation of the land register entries, their role model could also adapt to the new technology. Furthermore, linking a blockchain-based land register with the financial industry could lead to more efficient processing in real estate lending operations. There have also been further developments in the land register system outside DLT in recent years. Thus, in most European countries, the land register is accessible via digital databases, but with a wide range of access rights. In addition, at EU level, the EU Commission's Land Registers Interconnections (LRI) project aims to connect the land register administration of participating EU countries via the European e-Justice portal. In an initial project phase, the Austrian and Estonian land register platforms were connected. In a second project phase, Spain, Latvia, Hungary and Portugal are planning to participate.

A blockchain based credit process could also help to make cover pool management and reporting more efficient. Thus, credit conditions between borrowers and lenders could be negotiated in the traditional manner or also using digital credit platforms. Subsequently, detailed programming of the loan contracts using smart contracts would be feasible. The digital loan and the related collateral are then tokenized so that the borrower's loan book is made up of many individual credit tokens. The tokens could contain all information required, also for regulatory cover pool reporting e.g. on the borrower, the property financed, the location of the financed object, loan-to-value or interest rate. Also, with reference to the ongoing loan life cycle it would be possible to make updates e.g. with a view to payment history, special payments or similar. If the covered bond program were also implemented by using blockchain technology, the aim would be to allow automated communication between the credit blockchain and the covered bond blockchain. In the context of the covered bond blockchain, smart contracts could be programed to digitally map statutory requirements of covered bond legislation, thus being used to support cover pool management e.g. with the automated selection of eligible credit tokens. It would also be possible to use DLT to map cover pool reporting within this process on a fully automated basis and as a result of the decentralized structure to promptly provide it to all information recipients – including the supervisory authorities, the rating agencies and investors.

While such a blockchain covered bond model is still more a vision and would have to overcome various legal hurdles, other digital applications supporting real estate lending business have become reality already. This holds true especially for digital platforms for real estate financing on the one hand, but also the valuation of real estate on the other. Solutions here are generally provided by fin-techs specialized in the property sector, the so-called prop-techs.

In recent years, online platforms to broker mortgage loans have become increasingly important. Borrowers benefit from higher levels of transparency and the ability to make comparisons. The lenders, in turn, benefit from increasing their geographical outreach and further diversifying their credit portfolios. However, the lending process is still carried out the traditional way. But full digital processing of real estate loans via blockchain technology no longer is beyond reach. For example, the Austrian Federal Computing Centre together with the Prop-tech start-up Realest8 Technologies has launched a pilot project, whereby real estate transactions are to be carried out via a single platform, from the purchase offer to the granting of credit to the entry in the land register. The interfaces with the Austrian land register and banks eliminate media disruptions and the need for intermediaries. Here too, the aim is to process transactions faster, more cost-effectively and more securely. Another application for platforms which has been seen in recent years is the development of alternative financing forms using crowd investing platforms. Here blockchain technologies are increasingly being deployed, too. In this context a property is securitized by a special purpose vehicle in the form of security tokens. In buying the token, the investor acquires the right to the income generated by the property. Tokenization also makes it feasible to participate in small-scale real estate investments, opening up new investment opportunities for retail investors in particular. According to the Crowdinvest 2019 Market Report published by crowdinvest.de, more than EUR 720 mn were invested in German real estate crowd invest projects by the end of 2019. In 2019 alone there was a year-on-year increase exceeding 50% to EUR 321.5 mn. Overall, in comparison to classical financing forms, crowd investment still plays a rather subordinate role, though.

Digitalization can also be observed in the process of real estate valuation. Technologies such as big data, artificial intelligence and machine learning help to analyze and evaluate locations, portfolios and properties. However, this requires data availability on a broad basis and data exchange across the sector. Hence, blockchain technology would improve efficient and timely access. However, fully automated valuation processes are quite unlikely, due primarily to regulatory requirements. Thus, automated valuation models may generally be used to a limited extent only. Pfandbrief issuers, for example, are obliged to determine the mortgage lending value, which requires an on-site physical inspection of the property by an expert. But even in this instance digitalization can increase efficiency e.g. in the context of apps which compile digital records using the relevant data, which can then be directly accessed at the bank for further processing.

Data plays a major role not only in real estate valuation but also in the credit assessment of the borrower. A first step is to enable the customer to submit documents electronically instead of analogue means. These can be machine read and assessed using automated processes e.g. also deploying artificial intelligence. The EU Payment Service Directive (PSD II) which became effective in 2016 and was to be translated nationally by 2018 offers further potential. On customer request, banks must provide third party access to their accounts. As a result, developments of fin-tech startups include digital solutions which categorize fully automated account turnover and combine it to a digital budget. For the cooperating bank, this could serve as a basis for the loan decision process.

But also outside of the areas described above, prop-techs have identified a wide range of applications in the real estate sector in recent years. They range from document management, smart home applications to property and facility management. According to a survey by prop-tech blog proptech.de, more than 450 prop-techs have been active on the market in the German-speaking area (DACH region) alone at the beginning of June 2020. Relevant cooperation between classical mortgage finance providers and prop-techs thus encompass a wide range of cross-selling approaches beyond the financing business, and thus increase banks capacity to reduce their reliance on rate income to a certain extent.

SUMMARY

Digitalization is regarded as one of the most important future trends in the finance industry. In this context, DLT in particular could prove to be a key technology. The decentralized structure of DLT, the possibility to tokenize assets, and the automation of business processes via smart contracts offer potential for a wide range of applications. In pilot projects the key focus is on issuing securities and deployment in areas with a high level of paper-based documentation, e.g. trade finance. But initiatives in the course of developing payment tokens are also considered an important basis for potential further business approaches.

In the covered bond sector, Société Générale has already made a name in two test issues, whereby digital central bank money was also used in one case. Along the entire value chain of covered bonds, numerous applications of digital solutions, but also of DLT in particular, can already be identified.

In all pilot projects regulatory requirements cannot be ignored. However, it can be observed that supervisory authorities and legislators are adapting to new secular developments and thus try to embrace innovative technologies such as DLT. As a result, scenarios difficult to imagine on the basis of current legislation could become true in the foreseeable future.

In this context, it is almost imperative for banks to deal intensively with the new technologies, for example in initial pilot projects. This can result in enhanced efficiency of in-house structures. At the same time, there is an opportunity of tapping into new business areas on a cross-sector basis, thus assuming new roles. Cooperation with fin-techs can contribute to developing new services and products around traditional business such as mortgage financing, thus generating additional fee income.

1.10 COVERED BONDS FROM A GLOBAL PERSPECTIVE: PROVING THEIR ADDED VALUE IN TIMES OF TURMOIL

By Colin Chen, DBS & Chairman of the Global Issues Working Group and Maureen Schuller, ING Bank

This article is a summary update of the ECBC Global Issues Working Group Brochure, which was established with special thanks to Elena Bortolotti, Barclays, Thomas Cohrs, Helaba, Sascha Kullig, VDP, Filipe Pontual, ABECIP, Franz Rudolf, UniCredit, Lily Shum, CMHC and Christopher Walsch, Clifford Chance for their support and valuable contributions.

A QUICK GLANCE AT THE GLOBAL PICTURE

For over 200 years, covered bonds have proven to be an efficient debt instrument enabling banks to mobilise private sector means and capital towards long-term investment with a wide public benefit and, in particular, real estate loans and public sector debt. During the years of market turmoil, covered bonds demonstrated a strong degree of resilience. Throughout the crisis, they played a pivotal role in bank wholesale funding, providing lenders with a cost-effective and reliable long-term funding instrument for mortgage and public-sector loans. The Industry continues to build on the lessons learnt from the financial crisis while maintaining a focus on the essential features and qualities that have made the asset class such a success story.

The Covid-19 crisis is only a recent example of the important role covered bonds play on global scale under more distressed circumstances. Not only did the covered bond market remain open for funding to global banks in domestic and non-domestic currencies when market volatility was at its worst, also the use of retained covered bonds proved its importance beyond European borders during the recent crisis. In Canada for example, the Bank of Canada expanded the collateral eligibility criteria for its term-repo operations to include, among others, CAD covered bonds, including own-name covered bonds. In turn, the OSFI expanded its asset encumbrance restrictions for covered bonds in response to the Covid-19 crisis. Canadian deposit taking institutions are temporarily permitted to pledge maximum 10% of their total assets for covered bonds instead of 5.5%, with the sole purpose of granting them additional room to use own-issued covered bonds as collateral with the Bank of Canada. The use of retained covered bonds for central bank liquidity purposes has seen a strong rise in Canada since the Covid-19 crisis. In Australia, AUD covered bonds can also be used as collateral with the central bank, albeit not in retained format. Australian banks have made relatively modest use from their options to attract cheap central bank funding under the term funding facility (TFF) operations established by the Reserve Bank of Australia in light of the Covid-19 crisis. That said, the issuance in AUD covered bonds has picked up since the start of the Covid-19 crisis.

The ongoing EU Capital Markets Union (CMU) and Basel IV discussions are now, more than ever, opening new frontiers for covered bonds at both EU and international levels. The covered bond financing instrument is being exposed to critical evolutions which can bring about both new opportunities but also new risks. The covered bond market is faced with new regulatory, policy and supervisory developments, while market innovation, the continuous process of globalisation and national implementation of the covered bond concept will also leave their mark on the asset class.

In view of these considerations, the covered bond industry believes that there is a clear need to preserve the key nature of the product as a crisis management tool rooted in robust qualitative and macroprudential characteristics which are the basis for ensuring a regulatory recognition at global level.

POLICY DEVELOPMENTS

It is clear that the covered bond space has been fundamentally impacted by major waves of monetary policy, supervisory review and regulatory change, all of which together is having a significant impact on the long-term financing and housing finance sectors. This evolution is further evidenced by the Covered Bond Legislative Package in the EU.

The Legislative Package provides for the first time in the history of covered bonds, an enhanced harmonisation of the European Covered Bond market, in line with the objectives of the Capital Markets Union and reinforcing a European common qualitative benchmark for the international investors and respecting well-functioning traditional markets. It aligns and reinforces the covered bond product under the Basle rules and as importantly, it paves the way for the smooth introduction of the covered bond asset class in newer and emerging covered bond markets in the European Union, whilst also serving as an important legislative benchmark on a global level for countries such as Australia, Brazil, Canada, New Zealand, Singapore, South Korea and Japan.

MARKET DEVELOPMENTS

Covered bonds are at the heart of the European financial tradition, having played a central role in funding strategies for the last two centuries. The strategic importance of covered bonds as a long-term funding tool is now recognised at a global level.

Outside Europe, Australia, Brazil, Canada, New Zealand, Singapore and South Korea have already implemented a covered bond legislation in recent years. Major jurisdictions including Chile, India, Japan, Mexico, Morocco, Panama, Peru, South Africa and the United States, are either in the process of adopting covered bond legislation or are investigating the introduction of covered bonds.

LOOKING AHEAD

The Industry has demonstrated that through market initiatives such as the Covered Bond Label and the transparency and disclosures under the HTT templates, it is possible to build, from the bottom-up, proposals based on market consensus in order to initiate pan-European solutions which enhance transparency, comparability, convergence of markets and best practices.

Taking stock of where we have come from, where we are now and where we are heading, it is clear that the market and the environment in which it operates is constantly evolving and as such the work of the ECBC and its Global Issues Working Group is always in transition. The Industry will continue to lean towards the creation of a common regulatory framework for covered bonds that will enable the market to grow and flourish to the benefit of all its participants on a global level.

Box 1: The role of the ECBC Global Issues Working Group

In order to develop synergies between traditional, new and emerging covered bond markets as the joining of forces should allow the development of a more levelled playing field for all at a global level, the European Covered Bond Council (ECBC) established its ECBC Global Issues Working Group (GIWG) in 2015. So far, the work undertaken by the GIWG has been instrumental in ensuring a proper recognition of the macro-prudential value of the covered bond asset class while securing an appropriate, homogenous and cross-border regulatory treatment by different jurisdictions at a global level.

To this end, ECBC members have identified an important role to be played by the Working Group as a discussion forum for exchanging market best practices and as an educational platform for issuers and global investor communities. The overarching aim of the Working Group is to enhance transparency and convergence, and to ensure that there is a progressive common understanding of the covered bonds concept, with similar market solutions and infrastructures, and more important comparable regulatory treatments.

The Current State of Play and Outlook for Covered Bonds Outside Europe

Covered bonds represent a EUR 2.5 tn global asset class. Initially dominated by European issuers, the product is becoming increasingly relevant in many other markets, such as Australia, New Zealand, Canada, Singapore, and South Korea.

The global financial crisis proved that covered bonds can be a resilient source of funding in times of wider market turmoil. Even in the European countries most affected by the crisis, such as Italy and Spain, banks were able to tap the covered bond market despite other sources of wholesale funding evaporating.

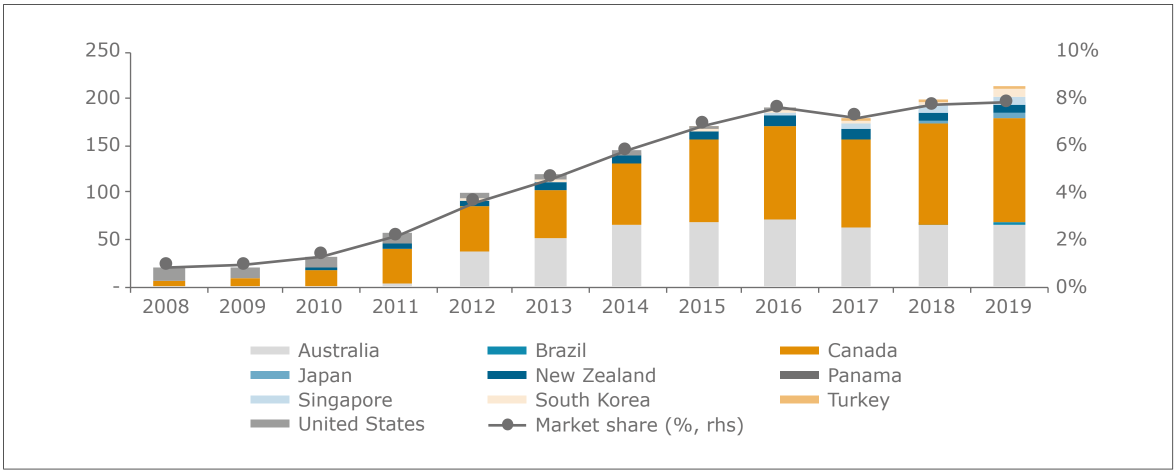
Issuers and regulators outside the traditional European markets duly noted banks' ability to issue covered bonds in times of stress and expedited the approval or the amendment of legislation governing the issuance of covered bonds. Covered bond issuance picked up quickly in most of these countries once the dedicated legislation was approved.

Over the past few years, accommodative monetary policies in Europe and the Americas and the European Central Bank (ECB)'s Covered Bond Purchase Programme (CBPP3) (including the ECB's recent step up in asset purchases via the temporary EUR 120 bn envelope and Pandemic Emergency Purchase Programme (PEPP) in response to the Covid-19 crisis), have also created favorable conditions to establish covered bond programmes in new countries.

Against this backdrop global issuers have, during the past decade, increased their share in the total covered bond print from merely 1% in 2008 to 8% in 2019. They even embody 11% of the EUR benchmark covered bond market and were responsible for 13% of the EUR benchmark issuance in 2019.

We believe that market conditions will remain supportive for covered bonds in new jurisdictions in the next few years. Moreover, an expected increase in mortgage lending will drive bond supply by increasing lenders' need for wholesale funding and the availability of eligible collateral. In the shorter term however, the economic consequences of the Covid-19 crisis may weaken housing market conditions and mortgage lending growth. That said, the accommodative monetary and budgetary policy measures taken across the globe will alleviate the impact on lending growth and loan performance. Finally, the legislative and regulatory environment remains favorable to covered bonds.

> FIGURE 1: OUTSTANDING COVERED BONDS OUTSIDE EUROPE, EUR BN



Source: EMF-ECBC

REGULATORY TREATMENT ON DIFFERENT TRACKS

Nonetheless, while the use of covered bonds as a source of funding is expanding across the globe, their regulatory treatment continues to differ.

The preferential treatment of covered bonds for risk weight purposes or within the scope of the liquidity coverage and net stable funding ratio requirements is still largely a European phenomenon. Outside Europe, the treatment of covered bonds remains mostly aligned with the Basel stipulations, meaning that covered bonds are barely treated more favourably than senior unsecured instruments. Even the eligibility of covered bonds for central bank collateral purposes is not common place and typically restricted to national currencies, such as in Australia and Canada.

Nonetheless the recognition and protection of the secure nature of covered bonds seem to be spreading beyond Europe. For instance, the Canadian regulator explicitly decided to shield secured liabilities such as covered bonds from the bail-in tool applicable to domestic systemically important banks (D-SIBs) under the Canadian resolution regime effective since September 2018. Furthermore, the Basel III reforms announced at the end of 2017 do plea for a more favourable risk weight treatment for covered bonds, paving the way for a preferential treatment of covered bonds on a global scale.

Basel III reforms pave the way for preferential risk weight treatment on a global level

In December 2017 the Basel Committee on Banking Supervision (BCBS) finalised its post-crisis regulatory reforms. These include preferential risk-weights for covered bonds on a global level for the first time as of 1 January 2022. The requirements set by the Basel Committee are founded on the more general conditions according to Article 52 (4) of the UCITS-Directive and similar to the additional requirements according to the current Article 129 of the CRR.

Covered bonds are defined as bonds issued by a bank or mortgage institution subject by law to special public supervision designed to protect bondholders. Proceeds of bond issuance must be invested conform the law in assets that are, during the whole period of validity of the bonds, capable of covering claims attached to the bonds. In the event of a failure of the issuer these proceeds would be used on a priority basis for the reimbursement of the principal and the payment of accrued interest.

The eligible cover assets are restricted to public sector assets and to claims secured by residential and commercial real estate subject to LTV cut-off percentages of 80% and 60% respectively. Claims on banks (A- or better rated) are eligible up to 15% of outstanding covered bonds. Additional collateral may also include substitution assets and derivatives entered into for the purpose of hedging risks related to the covered bond programme. In contrast to Article 129 of the CRR, ship mortgages do not qualify as eligible assets.

The transparency requirements are more or less in line with the current Article 129 of the CRR, but Basel requires a nominal overcollateralisation of 10%, which goes beyond the requirements at European level. While the European Covered Bond Directive agreed late 2019 does not require a mandatory overcollateralisation , the amendment of Article 129 CRR asks for a minimum nominal level of overcollateralisation of 5% on a statutory, contractual or voluntary basis. Hence even where national legislations may not provide for the minimum (statutory) overcollateralisation level required for a preferential risk weight treatment, issuers themselves may decide to either contractually commit to or voluntarily hold sufficient overcollateralisation to meet the requirements. The Basel reforms do require issuing banks to publicly disclose on a regular basis that the 10% overcollateralisation target is met in practice.

> Figure 2: Risk weight treatment for exposures to rated covered bonds

External rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-
Basel III (reformed)	10%	20%	20%	50%	100%
Basel III (current)	20%	50%	50%	100%	150%
CRR (current)	10%	20%	20%	50%	100%

Source: Basel Committee on Banking Supervision, European Commission

> Figure 3: Risk weight treatment for exposures to unrated covered bonds

Risk weight issuing bank	20%	30%	40%	50%	75%	100%	150%
Basel III (reformed)	10%	15%	20%	25%	35%	50%	100%
CRR (current)	10%	-	-	20%	-	50%	100%

Source: Basel Committee on Banking Supervision, European Commission

The status on third country equivalence within the EU

In Europe, the equivalent treatment of covered bonds issued by non-EEA credit institutions was left outside the scope of the Covered Bond Directive and the amendments to Article 129 of the CRR. Instead, the European Commission will submit a report on third country equivalence to the European Parliament and Council within two years after the provisions of the Directive have to be applied. This report may be accompanied by a legislative proposal on whether or how an equivalence regime should be introduced. However, EU member states are given until 8 July 2021 to transpose the Directive into national law, while the provisions of the Directive and amendments to Article 129 CRR will not have to be applied until 8 July 2022 at the latest. Hence, the timespan for the third country equivalence discussions in Europe may even stretch more than two years beyond the date the Basel III reforms should enter into force in January 2022.

Albeit one year shorter than the deadline initially proposed by the European Commission for the third country equivalence report, the two-year outcome is still less favourable than the European Parliament's initial stance. The European Parliament was of the view that the Commission would already have been able to start adopting delegated acts on third country equivalence to supplement the Directive. These acts would determine that *"the legal supervisory and enforcement arrangements of a third country are I) equivalent to the Directive's requirements on the structural features of covered bonds and covered bond public supervision, and II) effectively applied and enforced in an equitable and non-distortive manner in order to ensure effective supervision and enforcement in that third country"*. The Parliament also argued that the Commission should, in cooperation with the European Banking Authority (EBA), monitor the effectiveness of the structural covered bond requirements in third countries and regularly report on this to the Parliament and Council. If the equivalent requirements would be insufficiently applied by third country authorities, or if there is a material regulatory divergence, the Commission could consider withdrawing the equivalence recognition based upon a pre-defined transparent procedure.

Even though the third country equivalence discussions will have a longer-term horizon, European regulators do seem committed to consider an equivalent treatment of third country covered bonds. Judging the European Parliament's proposals for earlier adoption of delegated acts on third country equivalence, the Directive's structural requirements for covered bonds will probably be an important reference point for the equivalence assessments. Bearing this in mind, the next paragraph provides some insights in the alignment of global covered bond regimes with the European Covered Bond Directive, building upon the work of the ECBC Global Issues Working Group.

Global Best Practices – To what extent are global regimes aligned with the EU Directive and Regulation proposals?

In the past few years, the ECBC Global Issues Working Group analysed on several separate occasions how different global covered bond regimes meet the *proposals for covered bond harmonisation* in the EU. In this section we share some takeaways from the most recent analysis based upon the EU Covered Bond Directive and the amendments to Article 129 of the CRR in Europe as published in the Official Journal of the European Union on 18 December 2019. While our initial focus has initially been on the legal frameworks of the global jurisdictions with benchmark covered bond debt outstanding, our last update also considered the Brazilian covered bond legislation.

The results of the analysis reveal that most global covered bond regimes are fairly strongly aligned with the principles-based EU Covered Bond Directive and would in most cases probably not require significant amendments to become fully aligned. This is an important observation in light of any future EU third country equivalence assessment. Importantly, there is full alignment with the Directive's dual recourse and an almost full alignment with the bankruptcy remoteness and asset segregation requirements. On the other hand, virtually none of the global regimes provide for intragroup or joint funding options. The non-alignment in this field is not particularly relevant, especially since for example the intragroup covered bond funding is just an option for national legislators. Hence there is no obligation to implement it.

Global covered bonds are for obvious reasons typically secured by assets located outside the Union. The Directive allows for inclusion of these assets in cover pools if these assets meet the Directive's eligibility criteria and realisation of the assets is legally enforceable in a similar way to assets located in the EU. Most global covered bond regimes have established asset eligibility criteria and as such partially meet the Directive's requirements. For example, residential mortgage loans would generally be eligible up to the soft LTV limit of 80% specified in the amended Article 129 CRR. However, not all frameworks explicitly provide for credit quality restrictions on exposures to institutions or third country public sector exposures, or provide for the required legal certainty or property valuation in line with the CRR language.

Global covered bond regimes do provide for nominal coverage, but are not always as detailed as the Directive with reference to the type of cover assets that should contribute to the coverage requirement, i.e. being the primary assets, substitution assets, assets held for liquidity buffer purposes or payment claims related to derivative contracts. Moreover, several jurisdictions lack the requirement to take into account the expected costs related to the winding-down of the covered bond programme.

The minimum required nominal overcollateralisation level of 5% as specified in the amended Article 129 CRR, is only met by one country on the level of the legal framework (statutory). It is often met on an issuer-by-issuer basis on a contractual level. When the voluntary overcollateralisation is considered too, all jurisdictions would meet this requirement. According to the Article 129 CRR a lower overcollateralisation requirement of at least 2% may also be applied if the calculation of the overcollateralisation is either based upon a formal approach that takes into account the underlying risk of the assets, or on a formal approach where the valuation of the assets is subject to the mortgage lending value.

Most global covered bond jurisdictions do not explicitly provide for a 180 days liquidity rule, even though other types of liquidity provisioning can often be found in global frameworks. While commonly allowed, also the use of extendable maturity structures is not necessarily defined by law. That said, while global legal frameworks lack objective extension triggers, maturity extension triggers are, where applicable, mostly specified in detail in the contractual terms and conditions.

Global covered bond regimes are subject to covered bond public supervision, but would for instance not explicitly require, by law, that competent authorities should have the expertise, resources, operational capacity, powers and independence necessary to carry out the function of covered bond public supervision. Global covered bond regimes require permission from the competent authority to issue covered bonds, but some countries lack detailed requirements for permission. Provisions for supervision in insolvency or resolution are also often not as detailed as stipulated in the Directive, while there are notable differences between the global frameworks on the reporting requirements to the competent authorities. Not all global covered bond regimes fulfil the requirements for an independent covered bond monitor. But since this feature doesn't have to be implemented by EU Member States, this should not be regarded as a misalignment with the EU Directive.

Will the Directive and Regulation impact the EU LCR treatment of third country covered bonds?

Third country covered bonds are eligible as level 2a high quality liquid assets under the EU LCR delegated regulation if they meet certain minimum requirements. These requirements are at this stage broadly aligned with the UCITS 52(4) and CRR Article 129 provisions. Hence, it is for covered bonds of credit institutions outside the EEA also important to understand how the covered bond Directive and amended CRR Article 129 (Regulation) may potentially impact their LCR eligibility.

For instance, the supervisory and regulatory arrangements applied in the third country must be at least equivalent to those applied in the EU. Once the provisions from the Directive apply per 8 July 2022, the detailed mandatory special supervision requirements from the covered bond Directive may well become the guidance for the equivalence assessment of the relevant supervisory and regulatory arrangements in the third country.

Furthermore, where the cover pool comprises loans secured by immovable properties, third country covered bonds should meet the valuation requirements detailed by CRR Article 208 and 229(1). The reference to Article 229(1) is removed from the amended Article 129(3) of the CRR, as the valuation requirements will be covered by Article 6(5) of the Directive per 8 July 2022. The valuation requirements of Article 6(5) of the covered bond Directive could also become the future reference for third country LCR eligibility. This should in practice not make much of a difference compared to the current situation.

Likewise, the transparency requirements in CRR Article 129(7) are removed from the amended CRR Article 129. Instead, the investor information requirements will be covered by the Directive (Article 14). This slightly more detailed article may also become the new transparency norm for the EU LCR eligibility of third country covered bonds. Under the Directive's transitional measures, the investor information requirements should also be met per 8 July 2022 by covered bonds issued before that date. A similar approach could be taken with reference to the LCR eligibility of third country covered bonds.

Third country covered bonds should be secured by CRR Article 129(1) eligible primary assets for EU LCR level 2a eligibility. These eligibility criteria for third country covered bonds already excluded securitisation notes from the LCR eligible assets for third countries. Hence, the amendments made to CRR Article 129(1) in this regard will not impact the LCR level 2a eligibility of third country covered bonds. Besides, the Article 129(1) (c) requirements for exposures to credit institutions will become broader rather than tighter and should a not have much of an impact on the LCR eligibility of third countries.

Covered bonds issued by non-EEA credit institutions are eligible as level 2a liquid assets if, among others, the cover pool meets at all-time an asset coverage requirement of at least 7%, or 2% for covered bonds with a minimum size of EUR 500 mn (or domestic currency equivalent). This is a separate LCR requirement. The introduction of a 5% nominal overcollateralisation requirement under the amended Article 129 of the CRR should not necessarily overrule the overcollateralisation requirements stipulated in the LCR. That said, the covered bond Directive and amended CRR do detail certain coverage calculation technicalities, such as the coverage of winding down costs or the maximum loan recognition versus the value of the underlying security, that are left open for interpretation in the generic coverage requirements of the LCR.

IN SUMMARY

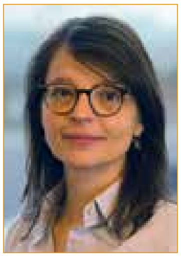
The past decade's growth of covered bond markets outside of Europe underscores the global recognition of covered bonds as a secure and important funding tool for banks, serving economic purposes. Nonetheless, the alignment of the regulatory treatment of EEA covered bonds and their comparables outside the block remains important work in progress. The introduction of preferential risk-weights for covered bonds in the Basel framework is a great success and could potentially further boost the use and investment in covered bonds worldwide. In Europe, it was decided to leave the potential equivalent treatment of non-EEA covered bonds outside the scope of the covered bond Directive, but not without commitment to assess the relevance hereof within two years after the Directive's provisions are applied. The decent alignment of global regimes with the requirements of the EU covered bond Directive provides an encouraging starting point for a more harmonised regulatory treatment of covered bonds across the globe. This alignment also positions global covered bonds well against any potential LCR consequences that may arise from the implementation of the EU covered bond Directive.

1.11 THE INVESTOR'S PERSPECTIVE

By Cristina Costa, Société Générale and Sabrina Miehs, Helaba

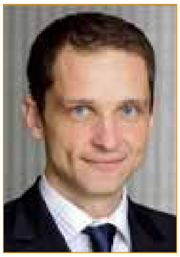
Covered bonds have proven to be a good source of long-term funding for banks and fared well during the 2007-2008 financial crisis, and proved to be a reliable and stable funding source at times when other funding channels dried up. During the Covid-19 outbreak in Q1, Q2 this year, covered bonds have again proven their resilience – both as a stable funding source for banks, and as an instrument that weathered the storm with less volatility than other instruments.

In April and May 2020, we asked a panel of investors to give us their thoughts on the market, in light of the Covid-19 outbreak, expansion of ECB's net APP, TLTRO 3 and how they see the future of the market. We wanted to assess investor appetite for the asset class and understand what some of the investment decision drivers are. We gathered a diversified group of investors – both in terms of type, and geography. We structure the article below in a roundtable format, based on the views of five covered bond investors.



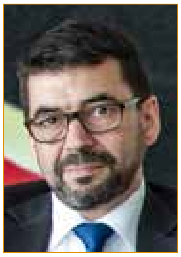
Ana CORTES GONZALEZ, JPMIM

Dirk FRIKKEE, NNIP



Yvan LAVASTRE, CDC

Franck MUGAT, Allianz Global Investors



Olaf PIMPER, Commerzbank Treasury

COVID-19 AND IMPLICATIONS FOR COVERED BONDS

Q*: The outbreak of the coronavirus has had an impact in all markets, and the covered bond one has not been unscathed with spreads widening by 20-30bp, albeit less so than credit. In this new environment, how do you position yourself as an investor?*

Ana Cortes Gonzalez (JPMIM): From a value point of view we use our relative value framework to determine the value we see in covered bonds on a daily basis. From the credit point of view, we analyse any investment by looking at the issuer, the structure and collateral quality. Any investment decision is driven by combining relative value and credit considerations, which determines our positioning in any environment accordingly.

Q*: Olaf, which type of assets attract your attention at the moment?*

Olaf Pimper (Commerzbank Treasury): In an environment of high uncertainty and high volatility we would look for reduced maturities (up to 5 years only) and focus on core and semi-core euro country issuers.

Q*: Thanks Olaf. And Franck, could you elaborate a bit on your thoughts and positioning?*

Franck Mugat (Allianz Global Investors): Our positioning towards covered bonds has become more constructive than at the beginning of the year for two main reasons: improved relative value and positive technical factors in 2H 2020. In the period end-February to mid-April, there was a significant ASW spread widening of 20/30 bps for covered bonds, reaching pre-CBPP3 levels. That said, covered bonds have widened less than credit products. Also, at these wider levels, the relative value of CBs vs govies (in core) and vs SSA has improved. At the same time, we believe covered bonds will benefit from strong technical factors, particularly in 2H 2020. For one, given generous ECB collateral and liquidity facilities as well as high levels of retained CB issuance, some banks could revise their issuance levels downwards. At the same time, the level of euro benchmark covered bond redemptions in 2H 2020 is high (EUR 67 bn), meaning net supply in the second half of this year will turn negative. As such, strong technical factors should support the asset class, despite Covid-19.

With the Covid-19 outbreak, we are increasingly focusing on fundamentals: the macroeconomic landscape has deteriorated on a global level, and the asset quality of banks could suffer going forward. Unemployment levels are increasing and the loss of jobs could have an incidence on the ability of households to service their debt. That said, rating agencies believe covered bonds should be well protected given they have large unused notches of uplift vs the issuer rating, so that a potential downgrade of the rating of an issuer should, all else being equal, not have an immediate impact on covered bonds.

***Q**: Dirk, would you like to add your view?*

Dirk Frikkee (NNIP): Prior to the sell off, spreads had compressed across issuers and across the yield curve. In that environment, you were not compensated for taking credit risk or country risk, and more defensive positioning made sense. In this environment, early May, this still makes sense, and probably even more so, as we navigate towards further uncertainty in coming months.

***Q**: Yvan, what about your interest in covered bonds these days?*

Yvan Lavastre (CDC): We are still interested in the covered bond market, favour credit at the moment since the spread differential between covered and credit is too big at the moment. Since the beginning of the Covid-19 crisis, credit markets have performed well and there have been a large supply of new issues.

***Q**: Thanks, Yvan. Now, let’s talk about the relative value landscape. Ana, what is your approach here?*

Ana: We do not look at covered bonds on a stand-alone basis, but on a relative value basis. We compare any bond in primary or secondary to its own peers and across covered bond sectors, but also across its respective capital structure including outstanding financials and securitisation. By doing so, we are able to access value in any environment across the primary and secondary market.

***Q**: Thanks. So, in the current relative value landscape, how are covered bonds faring compared to other asset classes?*

Olaf: Like in the past crises covered bonds are showing only little volatility compared to other asset classes. This is yet another proof for the recognition the product enjoys for many, many investors including central banks.

Dirk: Covered bonds have clearly outperformed other asset classes in the widening, showing only limited widening. There were very few transactions, it felt, as investors focussed on risk reduction in other asset classes. As markets rallied back in April, covered bond spreads moved sideways, as the relative value of covered bonds was not compelling at that moment. Senior preferred bond spreads were more attractive, and investors sold covered bonds to buy preferred, if possible.

Yvan: Given spreads of covered bonds are much tighter than credit, we are underweighting covered bonds. We feel it is better to invest in other financial debts where one can find very generous spreads.

Franck: While covered bonds issued just after the PEPP announcement offered attractive new issue premium, those that came in the market from the second half of April (e.g. CRH) have shown lower NIP but still large oversubscription levels as well with granular books. In this environment where the relative value of covered bonds vs SSAs has improved, we are slightly more constructive towards the asset class. Besides, the attractive conditions on TLTRO 3 plus the introduction of PELTROs by the ECB will likely reduce further our expectations for 2020 gross supply. With the ECB buying, liquidity in secondary has deteriorated and given that, we look for opportunities in covered bonds in the primary market. That said, we look for spread pick-up and, as such, prefer to be invested in APP-eligible corporate bonds which offer a nice premium. However, we have less appetite for issues with rating BBB-, which could become fallen angels.

CONSEQUENCES FROM ECB ACTIONS

***Q**: Thanks Franck. You already mentioned the ECB actions and the supply aspect. Let's stick to that for a moment, in March and April, the ECB announced a series of both in terms of enhanced QE (additional EUR 120 bn net APP package, plus the Pandemic Emergency Purchase Programme), additional liquidity facilities and easing of collateral measures. Do you expect the new ECB measures to cannibalise some covered bond issuance in 2020?*

Yvan: Yes, we fear that TLTRO 3 and other measures like PELTRO will cannibalise covered bond issuance given cheaper financing conditions with the ECB, where a bank could fund itself at negative rates.

Dirk: The new TLTROs/PELTROs will have impact on supply, as cheap financing alternatives to covered bond funding. Also, new mortgages will be less in these uncertain times, as house buyers delay their decisions. This could result in lower supply, particularly for shorter dated issuance – this will be a positive technical to keep yields low(er).

***Q**: Ana and Olaf, what is your view on ECB measures and supply?*

Ana: As of April 2020, it's difficult to get a good sense of total supply for 2020. While the new ECB measures do offer attractive shorter term funding, market conditions and mortgage production are important drivers for overall supply. Dependent on market conditions, it might be attractive for certain issuers and tenors to be refinanced in the capital markets, despite the ECB measures being in place. Issuer's might also look at their mortgage production levels and adjust their issuance needs accordingly, despite the ECB measures being in place.

Olaf: Yes. I think, the new TLTROs offered by the ECB are very advantageous for many banks. With the old conditions issuing covered bonds could have been the cheaper choice for at least some issuers. With the new measures this changed completely, making 3y funding via the ECB attractive. That said, I would expect issuers to choose the covered primary market especially to prove to the regulators, that long-term funding channels are still open…

***Q**: How are the ECB's new measures impacting the secondary covered bond market? Has liquidity deteriorated further? Is there an impact on your buying activity and, if so, is it rather reflected more in primary or secondary?*

Ana: Reduced secondary market liquidity is not new news for covered bond investors and investors have learned over the years to work with this constraint. Liquidity considerations are also part of our relative value framework and it forms part of our investment decision and buying activity accordingly.

Olaf: Liquidity has deteriorated yes, but not because of the ECBs new measures but as a consequence of the corona crisis as such. Like in every crisis during the past 15 years, liquidity dries out immediately. A fact that is comprehensible given that there are only sellers and traders not able or willing to take all the risk. Right now the secondary market is trying to find the right levels. Primary markets are helping here a lot, as it gives investors, issuers and traders guidance at what levels trades can be cleared. This is why we also focus more on primary markets these days.

***Q**: Dirk, Yvan what is your view on liquidity and the ECB support of the secondary market?*

Dirk: Liquidity has been bad following the March sell off in March. It feels like the focus of the ECB was more on the other purchase programs, where support/stabilization was more important. There was no real bid side liquidity during March, and it did not feel as if ECB was actively present. With markets stabilising in April/May, liquidity has come back a little bit, but bid offers feel wide, and we would focus more on primary issuance to buy, and use secondary markets to sell where we feel we need to reduce exposure.

Yvan: At the moment, we (investors) are in competition with the ECB both in primary and secondary markets. Liquidity has strongly deteriorated in the secondary market, and there are limited covered bond issues in the primary market, except for French issuers. As such, covered bond investors have a hard time sourcing paper.

NEGATIVE YIELDS AND RELATIVE VALUE

***Q**: How do negative yields affect your investments in covered bonds? How meaningful is the relative value analysis within the asset class for you?*

Dirk: We have some covered bond mandates where negative yields are part of life. Clearly, we would rather hold bonds with positive/high yields, but we can buy negative yielding bonds. Within the covered bond asset class, we will look at relative value, but as explained before, in a very compressed spread environment, we would look to upgrade the credit quality, and not give up too much yield/spread.

Yvan: With negative yields, we were compelled to invest in longer maturities and in riskier issues. As a result of the Covid-19 crisis, the widening of the spreads was more important. Covered bonds underperformed other asset classes such as ABS.

As the level of covered bond spreads is so tight, there is no real differences among covered bond issuers or jurisdictions. This is not a good thing for investors. Generally, we can find this kind of situation just before a crisis.

Ana: Negative yielding covered bonds as such do not necessarily stop us from investing. As mentioned previously, we don't look at covered bonds on a stand-alone basis, but as part of a capital structure. Hence, using our framework a potential outcome of this analysis could show that covered bonds might offer value even in case they are negative yielding.

***Q**: Thanks. Olaf, Franck, what is your approach in this respect?*

Olaf: We see the deposit rate as our natural benchmark and would look out for investments that fulfil the regulatory requirements and return more than the benchmark after costs.

Franck: At mid-March, with 10y Bund at -0.85%, c. 92% of the iBoxx CB index was trading negative. However since then, there has been a repricing with yields increasing. Today, covered bonds above 7y maturity are yielding positive. We consider current spread pick up of core covered bonds vs their respective sovereign as pretty attractive while peripheral covered bonds such as Italian OBGs trade deeply through BTPs.

INVESTING IN ESG

***Q**: Do you think ESG presents more opportunities or risk for banks?*

Olaf: ESG does not only present more opportunities for banks as they can enlarge their investor base; it contains more opportunities for all the environmental and social projects that are financed with the proceeds.

Dirk: ESG has become essential. To not have an ESG approach (and there can be lots of approaches) is a risk, let me put it that way.

Yvan: Investing in ESG could be an opportunity. At the moment, we only have few ESG covered bonds but we need to have more. In the covered bond market, the EeMAP initiative could be a revolution. Issuers and investors must support the initiative, we need to develop green loans and renovation loans. It's really the best way to struggle against climate changes.

***Q**: In analysing the potential investment, what takes preference, credit risk, pricing, liquidity or green/ESG assessment? How does pricing of ESG bonds compare to ordinary non-ESG bonds?*

Olaf: A deep and thoroughly credit assessment is the basis for all our investments. It still looks like the market is not willing to pay a premium for ESG bonds (accepts a malus for non-ESG bonds). At least it is hard to measure. But it will be interesting to see how the « Twin Bonds » planned by the Bundesfinanzagentur will behave.

From my perspective this will be the first time, where market participants can read off the price of ESG from the market prices.

Dirk: Credit risk is the main concern, and will remain the focus of our investment decisions going forward. Clearly pricing needs to reflect the credit risk, so those are linked. We prefer benchmark sized bonds, and will avoid smaller deals. ESG and non ESG bonds of the same issuer should not be too different in pricing. Comparing different issuers, where one is ESG labelled, and the other is not, is harder to do.

Yvan: The ESG bond should be analysed with the same methodologies. The pricing is near the same, but generally ESG bonds are hold to maturity. Given their scarcity, ESG bonds are generally less liquid but benefit from strong demand.

***Q**: What is your view on ESG assessments? Has your institution developed its own ESG guidelines/scoring factors, or do you rely on the assessment from sustainability agencies and/or credit rating agencies?*

Dirk: NN IP has both its own ESG assessment in its analysis, and uses sustainability agencies also. Credit analysts complete a credit score card, including a substantial ESG component.

Yvan: We rely on the assessment from sustainability agencies and/or credit rating agencies. It's the beginning of the ESG market.

COVERED BOND HARMONISATION

***Q**: Do you expect the transposition of CB Directive to have any spread impact on covered bonds in your jurisdiction?*

Ana: I do not expect the transposition of the CB Directive to have an impact on covered bonds spreads across most jurisdiction. The exception might be Spain. It's current covered bond framework is in need to be adjusted a bit more compared to other frameworks and dependent on how the new framework looks like it might have an effect on spreads to certain extent.

Yvan: In France, we do not expect a lot of legislative changes nor spread impact from transposition. The French covered bond framework is similar to the EU CB Directive.

***Q**: What elements of the new CB Directive do you feel are most important to strengthen the asset class?*

Yvan: We need to compare all the covered bonds in Europe. Even if there are some differences in the bankruptcy laws and in some cultural usages, it is important to have a converging framework.

LOOKING AHEAD

***Q**: What do you think is the biggest credit risk over the next 18 months? Which banking sector are you most concerned about in the next 18 months and why?*

Dirk: The biggest risk would be a slow(er) economic recovery, with job losses, and sharp increase in non-performing loans. This would put pressure on bank ratings, and could filter through into covered bond spreads also. In addition, the Covid-19 crisis has shown that European unity is still lacking, leaving the weaker sovereigns at risk of downgrades. Country risk will be an important aspect going forward.

Yvan: The biggest credit risk over the next 18 months is the bursting of the Eurozone ; the coronavirus crisis revealed some tensions and divergences among Euro countries. The level of indebtedness is very high and unsustainable for the future, especially in peripheral countries. Italy could be downgraded in a near future and perhaps become High Yield (HY).

CHAPTER 2 - GENERIC SECTION

2.1 OVERVIEW OF COVERED BONDS

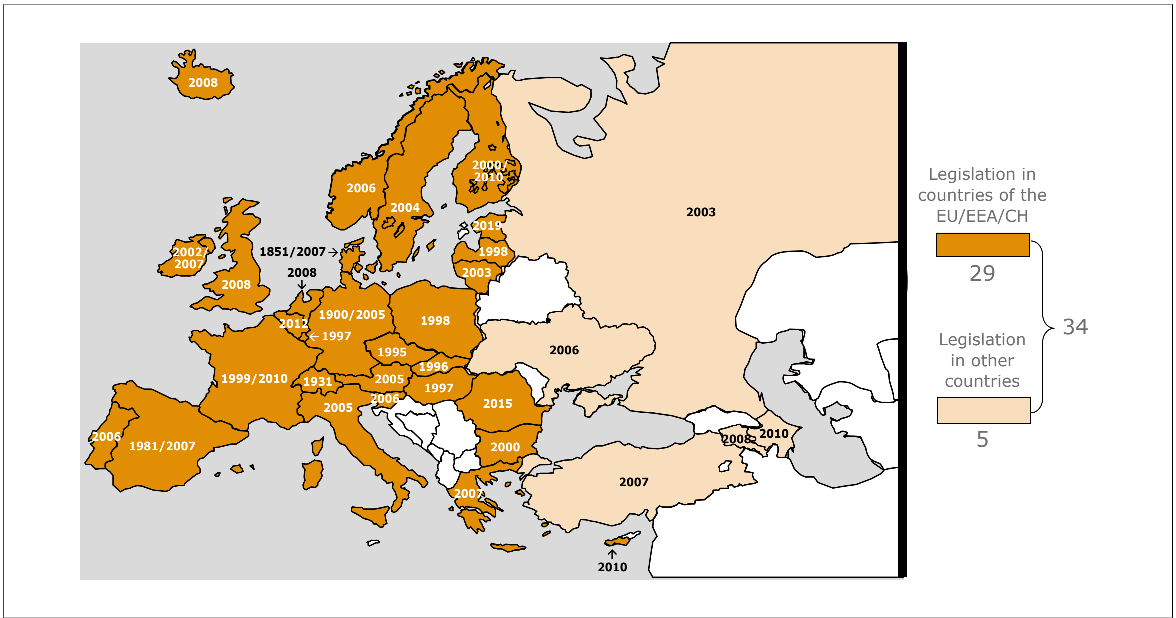
By Otmar Stöcker, Association of German Pfandbrief Banks and Cristina Costa, Société Générale

I. INTRODUCTION

The covered bond is a pan-European product with a long-standing history. Decisive milestones in its development were laid in Prussia (1770), Denmark (1797), Poland (1825) and France (1852). Traditional issuers ranged from public law "Landschaften" to private mortgage banks. Initially, the instrument's aim was to finance agriculture, but it later concentrated more on housing and commercial real estate.

Over the past 20 years, the covered bond market has developed into the most important segment of privately issued bonds on Europe's capital markets, with volume outstanding as of end-2019 of EUR 2.5 trillion. Today, there are active covered bond markets in c30 different European countries (please refer to the covered bond statistics section in chapter 5 for more information). The covered bond market has also expanded beyond European borders to become a global product: outside the European Economic Area (EEA), several countries (e.g. Australia, Canada, New Zealand, Singapore, South Korea, Brazil) have established covered bond legislation, and others (Morocco, US, Japan , Mexico, Chile, India, Thailand, Malaysia, China) are looking to establish CB frameworks.

> Figure 1: Covered bond legislation in Europe (as of April 2020)



Source: vdp

Why are covered bonds so popular?

Covered bonds play an important role in bank wholesale funding, as they provide lenders with a cost-efficient instrument of long-term funding for mortgage, or public-sector loans and offer investors good quality credit exposure on credit institution. Furthermore, the instrument has proved its resilience as a funding instrument at various occasions during the financial and sovereign crisis; covered bonds proved to be one of the only asset classes able to restore investor confidence and ensure European issuers access to the debt capital markets "please refer to the ECBC Factbook 2018 edition – pp. 134/135 – for a timeline of important milestones in the covered bond market". The high importance of covered bonds from the financial system is demonstrated by the regulatory privileges these instruments enjoy in various areas of EU financial market regulation. And the upcoming framework for covered bonds in Europe will reinforce the conditions for granting preferential capital treatment to coverage bonds by adding further requirements. At national level, in addition to the introduction of new covered bond legislations, there have been continuous evolutions/amendments to existing legislations, underlying the commitment of issuers, investors and regulators to take on board the best practice standards and further reinforce and enhance the quality of the asset class.

Covered bonds as a long-term funding tool for the real-economy: the example of housing finance

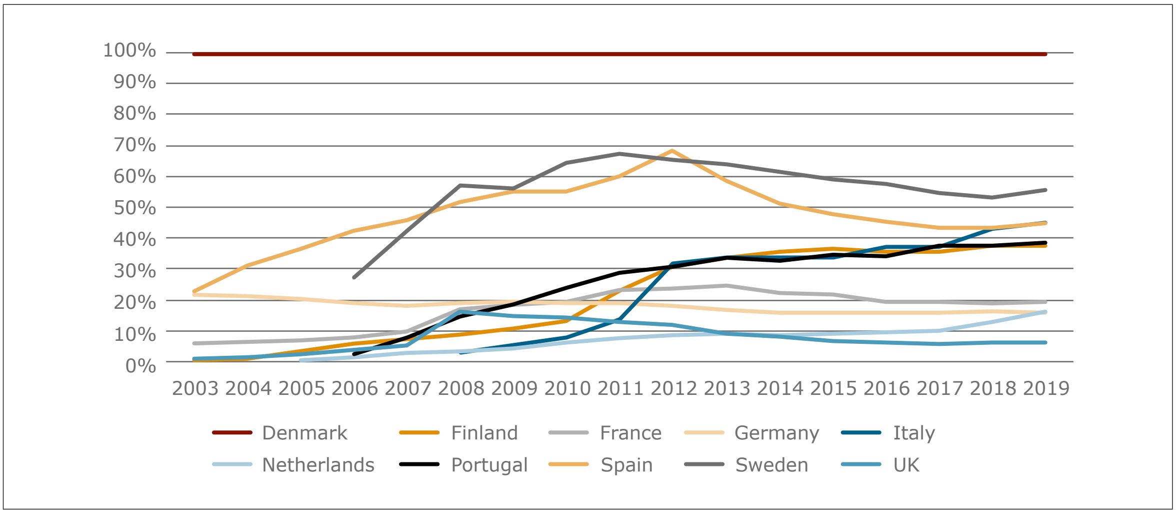
Covered bonds are an effective tool to channel long-term financing for high quality assets at reasonable cost. They improve bank's ability to borrow and lend at long-term horizons and, hence, represent a stable source of funding for key banking function such as housing loans and public infrastructure. In this regard, we believe that covered bonds represent a key funding tool for the European banking industry.

According to the European Mortgage Federation, purchasing a home is the biggest investment for the majority of European citizens, representing 4 to 5 times their annual income. In the absence of pre-existing wealth, individuals would have to wait 40 or 50 years if they had to rely solely on their individual savings. Borrowing resources are therefore necessary to acquire a home and more generally to support the European economy. Given the size of the investment, their repayment must be spread out over a long period to be compatible with annual savings capacity, and, hence, requires long-term funding tools for banks to avoid asset and liability mismatches.

In this context, and in particular in times of low risk appetite from investors, covered bonds' safety features (strict legal and supervisory framework, high quality assets, asset segregation, active management of cover pool…) play an essential role in ensuring the flow of capital in financing long-term growth and the real economy.

The use of covered bonds as a funding tool depends largely on the size of the domestic mortgage market, and the availability of alternative funding tools for banks (and their costs). The figure below shows that in most countries mortgage backed covered bonds account for at least 30% of outstanding mortgage loans. Most of the countries have now reached stable relative size of the covered bond market after a phase of strong growth in 2007/2008, and a more moderate growth subsequently.

> Figure 2: Mortgage backed covered bonds as % of residential mortgage loans



Source: EMF-ECBC

Benefits of covered bonds

From an issuer's perspective, covered bonds enable banks to enhance their funding profile and manage their liquidity. Benefits provided by covered bonds include:

> Providing banks a diversification of their funding mix, allowing asset liability management (ALM) teams to better adapt their funding strategy to market conditions;

> Extending the maturity profile of the liabilities, allowing banks to better match their long-term asset portfolios;

> Enabling issuers to increase diversification of the investor base, both in terms of geography and investor type, in particular to the more conservative rates investors. This phenomenon can also be evidenced by issuers turning to the issuance of green covered bonds, as they seek to broaden their investor base;

> Transforming less liquid mortgage loans into covered bonds which are eligible as collateral for central bank liquidity (including own use); and

> Servicing the industry as one of the most reliable funding tools, even in times of turmoil.

From an investor's perspective, the major strengths and regulatory advantages of covered bonds can be summarized as follows:

> Dual recourse to the issuer and a cover pool of high-quality assets (and therefore higher recovery in case of liquidation of the CB issuer);

> Higher rating and higher rating stability than unsecured debt;

> Lower risk-weighting for EEA covered bonds bought by EEA banks under the EU's CRR;

> Eligible as liquid assets under the EU LCR regulation;

> Exemption from bail-in under EU's BRRD;

> Privileged treatment of covered bonds under the EU large exposure rules (and upcoming Basel Committee on Banking Supervision (BCBS) rules);

> Favourable treatment under Solvency II;

> Favourable repo treatment at the European Central Bank (ECB) and other central banks;

The covered bond safety features (legal frameworks, high quality assets, special public supervision, etc.) and favourable regulation around covered bonds, reflecting those safety features, allows more institutional investors to buy covered bonds.

The EU Covered Bond Directive and corresponding changes to the Capital Requirements Regulation (CRR) should facilitate cross-border capital flows within the Eurozone and will allow for more comparable supervisory frameworks across Europe. The EC's legislative package comprises a Directive, providing a common definition of covered bonds and Regulation, amending the CRR, aimed at strengthening the conditions for granting preferential capital treatment to covered bonds by adding further requirements. The legislative package entered into force on 8 January 2020 and member states have until July 2021 to transpose the rules into national law, and until July 2022 before the provisions of the transposed directive apply (which will also be the moment when the provisions laid out in the Regulation start to apply). A separate chapter of this Fact book will provide more details on the EC's CB harmonisation package (1.1 Covered Bond Harmonisation: A milestone reached).

Resilient bank funding instrument

Covered bonds are the most reliable funding source, as they make banks less susceptible to adverse market conditions. They often offer issuers better wholesale capital market access, lower transaction execution risk, and decrease the reliance on senior unsecured funding and interbank markets. During the European sovereign crisis of 2011-2012, covered bond issuers of some jurisdictions had cheaper access to wholesale funding markets via covered bonds than their respective distressed sovereigns.

The development of covered bonds has also been shaped by regulation. The 2014 EU Liquidity Coverage Directive established covered bonds as eligible for Level 1 and Level 2A High Quality Liquid Assets (HQLA). As a result, bank treasuries became regular buyers of covered bonds to include in their liquidity portfolios. Since 2016, banks' funding activity has been oriented towards issuance of unsecured and hybrid debt in anticipation of stricter capital requirements (TLAC, MREL). However, a steady flow of covered bond issuance was observed with better supply activity in periods of heightened market volatility, or periods where unsecured and hybrid debt markets were more jittery.

Low interest rate environment

The current low interest rate environment, side-effect of the ECB's monetary policy, has also impacted the covered bond market. Interest rates remain low – and are set to remain low for longer following the ECB's announcement mid-March that rates are expected to *"remain at their present levels at least through the end of 2019"*. This has had consequences for the covered bond market. On the one hand, covered bond issuers have been looking to lock-in low rates for longer, and we have witnessed a lengthening of the duration profile of covered bonds (e.g. in the first 3 months of 2020, 70% of euro benchmark supply had maturity above 5y). For investors, the low rates have made some investors more reluctant to invest in covered bonds. Asset managers, insurance companies and pension funds, have tended to shy away from covered bonds as they seek higher yielding alternatives, invest in senior and senior non-preferred issues, or go longer out the curve.

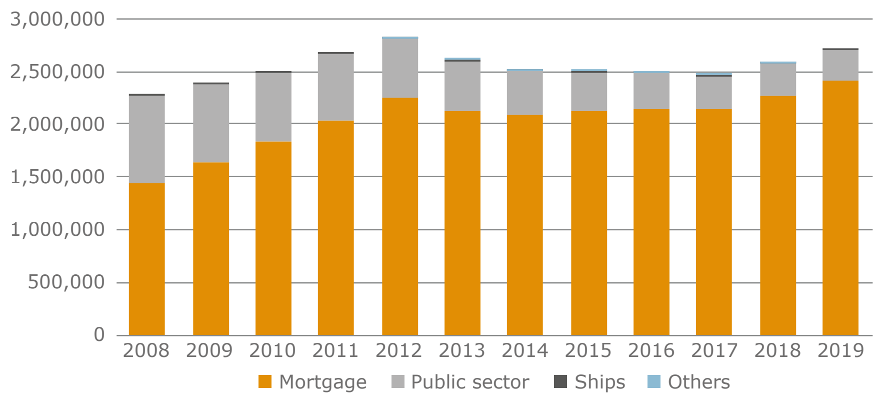
Covid-19-pandemia

The outbreak of Covid-19-pandemia globally has not left the covered bond market unscathed. The iBoxx EUR CB index widened by 25bp on the back of risk-off sentiment and higher new issue concessions in primary. At the same time, issuers bringing deals to the market shortened the maturity profile of issues and most deals issued in the period mid-March to mid-April were issued with maturities between 4 and 5 years. That said, covered bonds have shown their resilience and have been much less volatile than credit or peripheral govies.

II. MORTGAGE – PUBLIC SECTOR – SHIP

The range of eligible cover assets is defined by a country's covered bond legislation, although the major categories are mortgage loans, public sector loans, and to a lesser extent, ship loans. Aircraft loans are allowed as cover assets in Germany, although in its 2016 report on covered bonds, the European Banking Authority (EBA) recommends not including aircraft liens in the scope. Covered bonds backed by mortgage loans exist in all countries with covered bond systems. Covered bonds aimed to fund public sector lending (to national, regional and local authorities), are issued in a limited number of European countries (e.g. Austria, Belgium, France, Germany, Luxembourg, Norway, Sweden and the UK). Covered bonds backed by ship loans are rarer but can be found in Denmark and Germany.

> Figure 3: Total outstanding covered bonds by underlying assets, 2008 to 2019



Source: EMF-ECBC – Covered bonds outstanding at the end of 2018.

Italy and Spain have introduced special legislation permitting the issuance of covered bonds backed by other types of cover assets (SME, export finance, corporate bonds, receivables, etc) – Cédulas de Internacionalización in the case of Spain (BBVA issued a 3y retained export finance covered bond in August 2016) and Obbligazioni Bancarie Collateralizzate for Italy (no issuance has occurred yet). In addition, on 1 July 2018, Luxembourg was the first country to introduce a law allowing banks to issue covered bonds backed by renewable energy infrastructure financings; this is the first law globally to establish a green covered bond.

Emergence of green covered bonds

The market for green and sustainable covered bonds continues to grow, although the volumes are still modest. In 2015, Berlin Hyp issued its inaugural green mortgage backed by commercial real estate loans meeting certain environmental and sustainability standards, and with a second party opinion from Oekom research. The bank issued further green mortgage Pfandbriefe in 2017 and 2018. There were a handful of new issuers in 2018: Sparebank1 and DNB from Norway, LBBW and MUNHYP from Germany. In addition, Korea Housing Finance Corporation (KHFC) issued its first social bond in EUR end-2018, and 2019, CAFFIL, Societe Generale and Credit Agricole issued its inaugural social, positive impact and green Obligations Foncières, while PKO Bank Hypoteczny launched the first green covered bond from Poland and central and eastern Europe. Also, in the Nordics Nykredit and the Swedish Covered Bond Corporation issued green covered bonds in 2019. Rather than having a pure 'green' or 'social housing' cover pool, the proceeds of green/sustainable/social covered bonds are used to refinance green or social assts. Growth in issuance of green covered bonds is driven by the diversification of the investor base, reputation and increasing green mandates from investors/portfolio diversification. This topic will be treated in more detail in another chapter of this Factbook.

III. ECBC COVERED BOND COMPARATIVE DATABASE

The ECBC website presents in an on-line database at www.ecbc.eu a comparative analysis, based on a questionnaire with the responses of 35 jurisdictions. The comparative overview is divided into 9 sections covering the essential features of the covered bond systems. In addition, links are provided to the covered bond section of all issuers' websites, as well as covered bond legislation in English. Here, we highlight some of the results of that comparative overview.

3.1 Structure of the issuer

In all of the countries that participated in our comparative analysis, the covered bond issuers are regulated institutions. A classification of covered bond systems by type of issuer results in the following four categories:

> Universal credit institutions;

> Universal credit institutions with a special license;

> Specialised credit institutions; and

> Special purpose entities.

3.2 Framework

In most European countries, the issuance of covered bonds is regulated by specific covered bond legislation. In some countries contractual arrangements complement existing general insolvency law protecting holders of secured debt. Frameworks set the rules for important features such as eligible assets, specific asset valuation rules, assets-liability-management guidelines and transparency requirements.

Identification of the legal framework for bankruptcy of the issuer of covered bonds is of particular importance. The legal basis in case of bankruptcy of the covered bond issuer is provided either by the general insolvency law or by a specific legal framework superseding the general insolvency law.

3.3 Cover assets

The eligible cover assets in existing European covered bond systems range from exposures to public sector entities, mortgage and housing loans, exposures to credit institutions to ship and aircraft loans. Some covered bond systems distinguish between regular cover assets and substitution assets, where the latter is often subject to quantitative restrictions.

The geographical scope for cover assets ranges from the domestic area only, over EEA countries up to OECD countries. Regular covered bond specific disclosure requirements to the public is one of the key features that gained importance over the past decade. Existing covered bond systems offer a broad range of different solutions. One can find disclosure requirements regulated by law, by contract or on a voluntary basis. In most covered bond countries, national data disclosure templates exist obliging the issuers (either by law or on a voluntary basis) to disclose standardised cover pool information.

In particular, industry-driven transparency initiatives have gained importance over past years. In 2016, the ECBC under the Covered Bond Label Foundation phased-in its Harmonised Transparency Template (HTT). The HTT is the worldwide standardised, Excel-based form that issuers who have been granted the Covered Bond Label use to disclose information on their covered bond programs. Definitions and format of the disclosed information are standardised to increase comparability and transparency between issuers and between jurisdictions.

3.4 Valuation of mortgage cover pool & LTV criteria

Most countries have legal provisions or at least generally accepted principles for property valuation. Those provisions are an essential element to guarantee a certain minimum credit quality of cover assets. In most cases, the property valuation is based on a mortgage lending or prudent market value. LTV limits for single assets are ranging for residential mortgage loans from 60% to 80%. In some countries, there are additional LTV limits on a portfolio basis.

3.5 Asset-liability guidelines

Asset-liability guidelines exist in most of the covered bond systems, but large differences in technical details and the degree of explicit regulation (e.g. by law, by supervisor, issuer's by-laws, contractual provisions or business policy) make a detailed comparison rather difficult. One often applied rule is the 'cover-principle', which requires that the outstanding covered bonds must at all times be secured by cover assets of at least equal nominal amount and yielding at least equal interest. Some covered bond systems have implicitly or even explicitly introduced additional net-present value asset/liability matching rules.

Similar, mandatory overcollateralisation (on a nominal or net-present value basis) plays an important role as a risk mitigation tool in some covered bond systems. Derivatives constitute an important class of risk mitigating instruments in covered bond asset-liability management. In numerous covered bond systems, derivatives are explicitly allowed in the cover pool for hedging purposes.

3.6 Cover pool monitor & banking supervision

Most covered bond systems have established an external, independent cover pool monitor who must have appropriate qualifications. Moreover, in most countries national banking supervisors (and in some cases, financial market regulators) exercise special supervision of covered bonds.

3.7 Segregation of assets & bankruptcy remoteness

European covered bond systems use different techniques to protect covered bondholders against claims from other creditors in case of insolvency of the issuer. Most systems establish by law or by contract the segregation of cover pools from the general insolvency estate. In other covered bond systems, the protection of covered bondholders is achieved through a preferential claim within the general insolvency estate.

Numerous covered bond systems have provisions that allow derivatives to become part of the cover pool with the purpose to hedge interest rate or currency mismatches. Derivative counterparties can rank pari passu or subordinated to covered bondholders. In covered bond systems, covered bondholders have recourse to the issuer's insolvency estate upon a covered bond default (pari passu with unsecured creditors or even superior to them).

3.8 Risk-weighting & compliance with European legislation

From our sample, most fulfil the criteria of Article 52(4) UCITS. In many countries, the covered bond legislation falls within the criteria of Article 129 of Regulation EU No 575/2013 (CRR). In some countries, the CRR criteria are not fulfilled or not applicable. Moreover, in most of the participating countries in our survey, covered bonds are eligible in repo transactions with the national central bank and special investment regulations for covered bonds are in place.

3.9 Additional information

This section provides additional information on issuance formats, currency types and tenor preferences for selected jurisdictions.

IV. SUCCESS OF THE INSTRUMENT

The covered bond is one of the key components of European capital markets. The amount of outstanding mortgage covered bonds is equivalent to around 30% of outstanding residential mortgage loans in the EU. The volume outstanding at the end of 2019 amounted to over 2.7 tn EUR (covered bonds covered by mortgage loans, public-sector loans and ship loans). In descending order, the five largest issuing countries in 2019 were Denmark, Germany, France, Spain and Sweden.

Covered bonds play an important role in the financial system and thereby contribute to the efficient allocation of capital and ultimately economic development and prosperity. The importance of covered bonds is also evidenced by the broad variety of different bond formats and currencies under which the product is issued and by the large investor base. Both subjects are addressed in the key themes section.

> Figure 4: Volume outstanding covered bonds in Europe end of 2019 in EUR million

	Public Sector	Mortgage	Ships	Others	Mixed Assets	TOTAL
Austria	16,574	49,124	-	-	-	65,699
Belgium	2,461	23,637	-	-	-	26,098
Cyprus	-	650	-	-	-	650
Czech Republic	-	14,168	-	-	-	14,168
Denmark	10,864	402,432	6,090	-	-	419,386
Finland	-	37,774	-	-	-	37,774
France	65,079	209,294	-	-	59,870	334,243
Germany	121,849	239,570	2,724	-	-	364,143
Greece	-	13,190	-	-	-	13,190
Hungary	-	3,868	-	-	-	3,868
Ireland	708	19,337	-	-	-	20,044
Italy	4,925	172,728	-	-	-	177,653
Latvia	-	-	-	-	-	-
Luxembourg	6,290	-	-	-	-	6,290
The Netherlands	-	118,969	-	-	-	118,969
Poland	71	6,111	-	-	-	6,181
Portugal	600	36,600	-	-	-	37,200
Slovakia	-	6,658	-	-	-	6,658
Spain	20,763	220,767	-	-	-	241,530
Sweden	-	235,111	-	-	-	235,111
Total EU	250,183	1,809,987	8,814	-	59,870	2,128,854
Iceland	-	3,071	-	-	-	3,071
Norway	1,886	123,023	-	-	-	124,909
Total EEA	252,069	1,936,081	8,814	-	59,870	2,256,834
Australia	-	64,630	-	-	-	64,630
Brazil	-	2,487	-	-	-	2,487
Canada	-	113,016	-	-	-	113,016
Japan	-	3,585	-	-	-	3,585
New Zealand	-	10,018	-	-	-	10,018
Panama	-	36	-	-	-	36
Singapore	-	8,990	-	-	-	8,990
South Korea	-	6,183	-	-	-	6,183
Switzerland	-	128,248	-	-	-	128,248
Turkey	-	1,967	-	-	-	1,967
United Kingdom	705	108,857	-	-	-	109,562
United States	-	-	-	-	-	-
Total non EU	2,591	574,111	-	-	-	576,702
Total non EEA	705	448,017	-	-	-	448,722
Grand Total	**252,774**	**2,384,098**	**8,814**	**-**	**59,870**	**2,705,556**

Source: EMF-ECBC

Notes: Please refer to section 5 for additional information on the ECBC statistics.

2.2 REGULATORY ISSUES

2.2.1 COVERED BONDS AND EU BANKING REGULATIONS

By Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group

Over the last decade, covered bonds were able to ensure a preferential regulatory treatment compared to many other asset classes reflecting the strengths and low risks of the product. The most important regulatory rules include the Bank Recovery and Resolution Directive (BRRD) which exempts covered bonds from bail-in, the Liquidity Coverage Ratio (LCR) which categorises covered bonds as highly liquid assets, the Capital Requirement Regulation (CRR) which assigned low risk weights to covered bonds and, last but not least, Solvency II which grants low spread risk factors to covered bonds. The last two play a very important role for the banking sector and the insurance industry, respectively.

In addition, there are currently several other initiatives by European and global regulators under way which could have wider implications for the covered bond product and the issuers of covered bonds. Above all, the Covered Bond Directive, which was approved by the European Parliament in April 2019 and aims at further harmonising the covered bond market in Europe, will have a wide-spread impact on the covered bond markets not only in the Europe but also across the globe. Below we provide an overview of the planned or currently discussed major regulatory amendments which could affect covered bonds.

I. COVERED BOND HARMONISATION

In January 2020, the covered bond harmonisation package entered in force and the implementation deadline for the EU member states started. The EU approach in harmonising the covered bond market is largely principle-based and incorporates many ideas that were initially suggested by the European Banking Authority (EBA). It consists of two parts:

> A new EU directive on covered bonds, replacing the provisions of Art. 52 UCITS and defining the key structural elements that should be common to all EU Covered Bonds. The idea is that the covered bond directive will be the point of reference for prudential regulatory purposes. It also introduces a European covered bond label.

> Amendments to Art. 129 CRR which include additional requirements that covered bonds have to fulfil in order to continue to benefit from a preferential capital treatment. This includes a new 5% minimum overcollateralisation (OC) requirement. National regulators may, however, apply a lower minimum OC if certain conditions are met. The limit cannot, however, be lower than 2%.

Figure 1 summarises the key features of the new directive and the proposed CRR amendments.

Figure 1: Covered Bond Harmonisation proposal by the European Commission

Covered Bond Directive	Amendments of Art. 129 CRR
> Requirements for regulatory recognition of covered bonds; replacement of Art. 52 (4) UCITS > Base-line covered bond definition (dual recourse, segregation of assets, bankruptcy remoteness, public supervision, liquidity buffer) > Structural features include soft bullet and CPT features > Extended transparency requirements (moved from CRR)	> Enhanced requirements for preferential capital treatment > Credit risk related features: - eligibility of cover assets - substitution assets - LTV limits - minimum OC between 2-5%

Source: HSBC, EBA

Following the publication of the new covered bond directive in the Official Gazette on 18 December 2019 and the entering into force on 7 January, national lawmakers will have 18 months until 8 July 2021 to transpose the Covered Bond Directive into national law, which leaves scope for limited national discretion. The provisions of the national laws shall apply at latest 12 months after the transposition deadline. This means that starting from 8 July 2022 the amended national laws must apply.

The CRR amendments on the other hand do not have to be transposed into national law as the regulation is directly applicable and will apply from the same date the Covered Bond Directive is applied.

II. BASEL III

In December 2017, the Basel Committee on Banking Supervision (BCBS) published the Basel III reform package. It encompasses a long list of changes including a revision to the Standardised Approach, a cutback on the (advanced) internal ratings-based approach and the introduction of an output floor which will be phased in over five years from 50% in 2023 to 72.5% in 2028 after the implementation dates were deferred by one year in March 2020 in light of the Covid-19 pandemic. The output floor limits the extent to which banks' risk-weighted assets generated by internal models can be lower than calculated by the standardised approaches. The next step will be the implementation of these revised standards into national law which allow the national regulators to make some country-specific adjustments. The EU will also update the Capital Requirements Regulation (CRR) to reflect the amendments at Basel level. The revised Basel III standard will take effect from 1 January 2023 (following the above mentioned 1-year deferral in response to the Covid-19 crisis).

Moreover, the reforms introduced preferential risk weights for covered bonds and define the minimum standards that covered bonds must fulfil: According to the Basel document, "covered bonds are bonds issued by a bank or mortgage institution that are subject by law to special public supervision designed to protect bond holders. Proceeds deriving from the issue of these bonds must be invested in conformity with the law in assets which, during the whole period of the validity of the bonds, are capable of covering claims attached to the bonds and which, in the event of the failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest."

In order to be eligible for the lower risk weights, cover assets are limited by the Basel Committee to:

> claims on, or guaranteed by, sovereigns, their central banks, public sector entities or multilateral development banks;

> claims secured by residential real estate with a LTV ratio of 80% or lower;

> claims secured by commercial real estate with a LTV ratio of 60% or lower; or

> claims on, or guaranteed by banks that qualify for a 30% or lower risk weight. However, such assets cannot exceed 15% of covered bond issuances.

That means covered bonds backed by ship or aircraft loans will not benefit from a preferential risk weight under the Basel rules. Moreover, the required minimum overcollateralisation (OC) is set at 10% on a nominal basis. Importantly, the 10% level does not have to be required by law. However, if the minimum OC is not required by law, the issuer has to publicly disclose on a regular basis that its cover pool meets the required 10% minimum OC.

Moreover, "substitution assets (cash or short-term liquid and secure assets held in substitution of the primary assets to top up the cover pool for management purposes) and derivatives entered into for the purposes of hedging the risks arising in the covered bond program" may form part of the cover pool.

Finally, the Basel Committee sets out minimum disclosure requirements. The bank investing into covered bonds must demonstrate to its national supervisors that:

(a) it receives portfolio information at least on: (i) the value of the cover pool and outstanding covered bonds; (ii) the geographical distribution and type of cover assets, loan size, interest rate and currency risks; (iii) the maturity structure of cover assets and covered bonds; and (iv) the percentage of loans more than 90 days past due;

(b) the issuer makes the information referred to in point (a) available to the bank at least semi-annually.

Risk weights

Should the covered bond fulfil the requirements set out above, the risk weight should be determined by the issue-specific rating or – if the covered bond itself is unrated – by the risk weight of the issuer as set out in figure 2 and 3.

FIGURE 2: RISK WEIGHTS FOR RATED AND UNRATED COVERED BOND EXPOSURES

Rated Covered Bonds:					
Issue-specific covered bond rating	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to B-**	**Below B-**
"Base" risk weight	10%	20%	20%	50%	100%

Unrated Covered Bonds:							
Risk weight of the issuing bank	**20%**	**30%**	**40%**	**50%**	**75%**	**100%**	**150%**
"Base" risk weight	10%	15%	20%	25%	35%	50%	100%

Source: BIS, HSBC

However, to reduce the dependence on external ratings, "banks must perform due diligence to ensure that the external ratings appropriately and conservatively reflect the creditworthiness of the covered bond and the issuing bank. If the due diligence analysis reflects higher risk characteristics than that implied by the external rating bucket of the exposure (ie AAA to AA-; A+ to A- etc), the bank must assign a risk weight at least one bucket higher than the "base" risk weight determined by the external rating. Due diligence analysis must never result in the application of a lower risk weight than that determined by the external rating". Therefore, in some cases a higher risk weight than shown in figure 1 might be applicable.

Market impact

As most benchmark programmes already fulfil most of the necessary requirements – only the OC is slightly lower in some cases – the effort of the covered bond issuers to fulfil these new Basel requirements should be manageable. Regarding the investor demand, the new rules – which will apply from January 2023 onwards – should help to further broaden the investor base for covered bonds on a global scale. Covered bond demand by European bank treasuries and the ECB's purchase programme currently play an important role but the preferential risk weights to covered bonds outside of the European Economic Area will likely support the covered bond market in the future.

III. CAPITAL MARKET UNION: EUROPEAN SECURED NOTES (ESN)

Back in February 2015, the European Commission published a Green Paper on "Building a Capital Markets Union". The aim of the Capital Markets Union (CMU) is to improve long-term financing of the European economy by overcoming the adverse effects of financial fragmentation in Europe and to achieve a better allocation of financial resources across Europe. The Green Paper focuses, in particular, on the SME sector in Europe and argues for a much broader approach on long-term financing going well beyond traditional funding provided by banks.

In response to the European Commission initiative, the European Covered Bond Council (ECBC) suggested in May 2015 the introduction of a new dual recourse financial instrument in the European Union to address a funding segment located between the traditional covered bond and high-quality securitisation: the so-called European Secured Notes (ESN). The ESN would benefit from the market best practices of both traditional covered bonds (for funding purposes) and securitisation (for funding and risk-sharing purposes). Such an instrument could be backed by SME loans or other types of assets, such as infrastructure loans, and could contribute to the CMU growth objective.

In June 2018, the European Banking Authority (EBA) published its recommendations on ESNs. The EBA emphasised the importance of separating ESNs from traditional covered bonds and estimates that the aggregated pool of collateral (SME and infrastructure exposures) that would be available for re-financing through ESNs could be as high as EUR4 tn. Moreover, the EBA estimates a potential market size between EUR400bn and EUR1.2 tn based on a coverage comparable to mortgage loans (Figure 3). Since 2003, between 15% and 25% of all residential mortgage loans in the EU have been refinanced via covered bonds. However, if ESNs did not benefit from the same regulatory treatment as covered bonds, the potential market size could be substantially smaller.

Figure 3: Estimates of the size of the ESN market in the near term (EURbn)

Share of SME and infrastructure loans used to issue ESNs				
	100%	**10%**	**20%**	**30%**
SME loans	3,100	310	620	930
Infrastructure loans	800	80	170	250
Total ESNs market	3,900	390	790	1,180

Source: EBA, HSBC (EBA calculations)

The EBA estimates that the rise of asset encumbrance caused by the introduction of ESNs shouldn't be a concern for the EU banking system as a whole. It could, however, pose additional risks at a national level or at the level of individual issuers. The EBA therefore suggests the introduction of potential asset encumbrance limits at a national level or for specific institutions.

III.1 Regulatory treatment of SME ESNs

As SME ESNs would be structured as dual recourse instruments, the EBA considers – with some adjustments – all of its Best Practices Guidelines on covered bonds to be appropriate for SME ESNs. The EBA proposed stricter cover asset eligibility criteria compared to covered bonds – both at loan and pool levels – to account for the higher risk of SME exposures compared to traditional collateral for covered bonds. Moreover, the EBA recommends a mandatory overcollateralisation of at least 30%.

According to the EBA, a preferential risk weight under the CRR would not be appropriate based exclusively on the underlying assets. However, given the structure of the ESN, a different risk weight requirement compared with unsecured exposure could be considered, which should take into account:

> The dual-recourse character of the instrument;

> The overall consistency of the CRR capital framework between exposure classes;

> A clear distinction between SME ESNs and covered bonds that should be maintained to avoid potential negative side effects on the covered bond market.

The prudential treatment of SME ESNs under the LCR cannot be assessed currently as the instrument does not exist yet and its liquidity cannot be measured. However, given ESNs are issued by credit institutions and fundamental features of covered bonds are met, a preferential investment threshold under UCITS could be considered, according to the EBA. Along the same lines of argument, an exemption from posting collateral under EMIR could be considered. Last but not least, SME ESNs should be exempted from bail-in under the BRRD in line with other secured liabilities.

III.2 Regulatory treatment of infrastructure ESNs

In contrast to SME ESNs, a dual recourse structure would not be appropriate for infrastructure exposure, according to the EBA, "given the bespoke nature, the complex structure and the lack of granularity characterising infrastructure loans." More specifically, the infrastructure project asset class is more heterogeneous and covers a wide range of very diverse assets. Moreover, the credit risk of infrastructure loans is much higher during the construction phase than in the operational phase (Figure 4). The EBA therefore recommends restricting cover assets to project finance loans in the operational phase.

Figure 4: Distribution of defaults and ultimate recoveries by project phase

	Defaults	Average years to default	Recovery rates
Construction	28	2.7	66%
Operational	161	4.9	76%
Total	189	4.6	74%

Source: EBA, HSBC

As the EBA advised against dual-recourse for infrastructure ESNs, it did not assess the potential regulatory treatment. However, the EBA views the introduction of an EU infrastructure bond as an off-balance-sheet instrument for high-quality project finance loans as something worth considering.

The new Covered Bond Directive mentioned European Secured Notes in Recital 34 and in Article 31, which require the European Commission to prepare a report and a legislative proposal – if appropriate – on European Secured Notes two years after the Covered Bond Directive has been transposed into national law (+18 months after entering into force) and the new provisions will apply (+ another 12 months).

From a banking industry perspective, the introduction of ESNs as standardised dual-recourse funding tool to refinance SME loans would be an interesting funding alternative for banks. While it may be of limited added value in the current compressed yield environment, it can gain in importance if the market levels start to normalise and the risk premiums demanded by market participants increase. As highlighted by the EBA it is crucial to maintain a clear distinction between ESNs and covered bonds given the higher risk of the underlying SME collateral compared to mortgage and public sector assets. Crucial for the success of such a tool in terms of new issue volumes and achievable funding levels would be a positive regulatory recognition of this financial instrument.

IV. NET-STABLE FUNDING RATIO (NSFR)

The Basel III framework and the Capital Requirement Regulation (CRR) introduced two liquidity standards: The Liquidity Coverage Requirement (LCR) and the Net-Stable Funding Ratio (NSFR). While the LCR rules have been phased-in in Europe since October 2015, the NSFR rules will only enter into force on 28 June 2021 following the adoption by the European Parliament in May 2019. At the Basel level, the NSFR already came into force for internationally active banks on 1 January 2018.

Principally, the NSFR is calculated as the ratio of Available Stable Funding (ASF) to Required Stable Funding (RSF), which has to be greater than 100%. ASF and RSF are calculated on the liabilities and assets, respectively, weighed by specific factors. These factors depend among others on the remaining maturity, the type of assets and the encumbrance status.

$$\text{NSFR} = \frac{\text{Available Stable Funding (ASF)}}{\text{Required Stable Funding (RSF)}} \geq 100\%$$

V. LEVERAGE RATIO

In order to "prevent institutions from excessively increasing leverage" (European Commission, November 2016), the Basel Committee and the EU have created an additional defence line: the leverage ratio. The leverage ratio complements the risk-weighted capital requirements "by providing a safeguard against unsustainable levels of leverage and by mitigating gaming and model risk across both internal models and standardised risk measurement approaches" (Basel Committee, December 2017). The BCBS requires banks to maintain a leverage ratio of 3%. Global Systemically Important Banks (G-SIBs) are subject to even higher ratios. Currently, the 3% leverage ratio is not binding in the EU but EU banks are required to disclose the leverage ratio since the beginning of 2015. However, in May 2019, the European Parliament adopted amendments of the CRR including the leverage ratio which will enter into force on 28 June 2021.

VI. LIQUIDITY COVERAGE RATIO (LCR)

In October 2014, the European Commission published its delegated act on the liquidity coverage ratio (LCR) which requires banks to hold a certain amount of liquid assets to cover their net cash outflows over 30 days. The LCR has been phased-in since October 2015 and was fully implemented at the beginning of 2018 which is one year earlier than demanded by the Basel standard. This phase-in period granted credit institutions sufficient time to build up their liquidity buffers, whilst preventing a disruption of the flow of credit to the real economy during the transitional period.

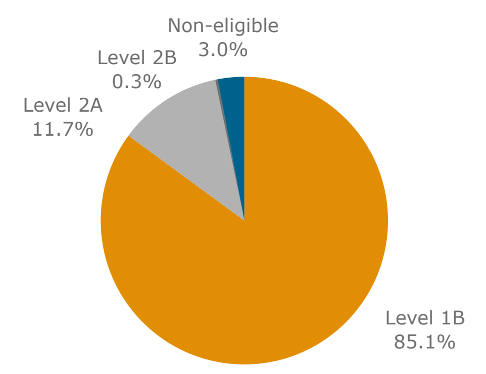
In a stress scenario when a bank need its liquid assets, its LCR levels could (temporarily) fall below 100%. However, the bank would be required to immediately notify the competent authorities and submit a plan for the timely restoration of the LCR to above the 100% threshold.

As the liquidity buffer is to reach a considerable level of a bank's balance sheet (10% or more of the total assets of an average EU bank according to European Banking Authority (EBA) estimates), the implementation of the LCR is likely to sustain the demand for eligible bonds.

Figure 5 provides a breakdown of the EUR benchmark covered market by LCR level. More than four-fifths of the covered bonds are Level 1, roughly 12% are Level 2A and only 0.3% are Level 2B as this category currently merely consist of Greek covered bonds. Only 3% of the EUR benchmark covered bonds are not LCR eligible.

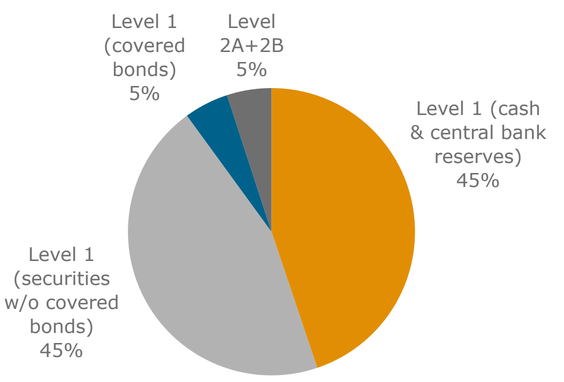
The breakdown of the actual liquidity buffers shows that the share of covered bonds in the LCR portfolios is relatively small as most banks tend to focus on cash, central bank reserves and government bonds to fulfil their LCR requirements. According to the LCR report by the European Banking Authority (EBA) from October 2019, the 178 EU banks (incl. subsidiaries) participating in the Quantitative Impact Study (QIS) held around 15% of their total assets at the end of 2018 in form of liquid assets. Level 1 assets (excluding covered bonds) made up about 90% of the liquid buffers, including 45% cash & central bank reserves and 45% other eligible securities. In contrast, the share of Level 1 covered bonds is around 5% while Level 2A and Level 2B assets (including but not limited to covered bonds) add up to about 5% as well (Figure 6).

> FIGURE 5: CLASSIFICATION OF COVERED BONDS



Source: HSBC, Bloomberg (only EUR benchmark covered bonds)

> FIGURE 6: USAGE OF COVERED BONDS



Source: EBA, QIS data as of end-2018

Quick overview of the various LCR classifications

Level 1 assets ('Extremely High Quality Liquid Assets') include cash, deposits at the central bank, all types of bonds issued or guaranteed by the EU Member States' central government, covered bonds that meet certain conditions, as well as certain agency and supranational issues. Regarding the classification of EU sovereign bonds, no distinction was made between member states as that could have led to a fragmentation of the internal market and potential contagion risk.

Level 2A assets ('High Quality Liquid Assets') include exposures to regional governments, local authorities or public sector entities (PSEs) with a risk weight of 20% and covered bonds with a credit quality step 2 rating (at least A-) and non-EU covered bonds rated at credit quality step 1 (at least AA-). Corporate bonds with at least credit quality step 1, a minimum issue size of EUR250m and maximum maturity of 10 years at the time of issuance are also classified as Level 2A.

Level 2B assets ('High Quality Liquid Assets') incorporate high quality securitisations for RMBS, auto, SME and consumer loans and high quality covered bonds that do not meet the rating threshold of Level 1 and 2A. Shares meeting certain conditions and corporate bonds with at least credit quality step 3 (at least BBB-), a minimum issue size of EUR250m and maximum maturity of 10 years at the time of issuance are accepted as Level 2B.

Classification of covered bonds

Level 1 HQLAs include covered bonds that meet certain conditions, including being issued by an issuer in the European Economic Area (EEA), having a credit quality step 1 (at least AA-), a minimum size of EUR500m equivalent and a minimum overcollateralisation of 2%. The rating threshold will be based on a second-best rating approach in line with capital requirement rules (CRR) rather than on the ECB's best rating rule. Whilst other Level 1 assets are not subject to either liquidity buffer limits or to a haircut to their market value, Level 1 covered bonds will be subject to a 70% cap in the liquidity buffer and a 7% haircut.

Level 2A HQLAs include:

> EEA covered bonds with a credit quality step 2 rating (A- or better), a minimum size of EUR250m equivalent and minimum overcollateralisation of 7%;

> EEA covered bonds with a credit quality step 1 rating (AA- or better) and an issue size below the EUR500m threshold (but still meeting the minimum size of EUR250m equivalent) need a lower minimum overcollateralisation of 2%;

> Non-EEA covered bonds rated at credit quality step 1 (AA- or better) with a minimum overcollateralisation of 7%. There is no minimum size requirement. However, bonds with a size of EUR500m equivalent or more only need a minimum overcollateralisation of 2%. Moreover, the national covered bond law has to fulfil the CRR or UCITS requirements other than the issuer being based in EU.

Level 2A covered bonds can be used for up to a maximum of 40% in the liquidity buffer and are subject to a 15% haircut.

Level 2B HQLAs can be used for up to a maximum of 15% in the liquidity buffer and are subject to a minimum haircut varying between 25% and 50%. High quality EEA covered bonds that do not meet the rating threshold of Level 1 and 2A fall under this category. There are additional requirements for the cover assets which are limited to public sector and central bank exposures in EEA countries, residential mortgages (max 80% LTV) and guaranteed residential mortgages. The haircut for these covered bonds is relatively high at 30% and the cap is set at 15%.

Furthermore, in order to qualify, EEA covered bonds must be UCITS or CRR compliant. Non-EEA covered bonds must have a national covered bond law. In addition, all covered bonds must fulfil the transparency requirements of Article 129 (7) CRR.

Basel's LCR rules are less favourable

The BCBS LCR rules are less favourable than the EU regulation. Under the Basel rules, covered bonds are defined as bonds issued and owned by a bank or mortgage institution that are subject by law to special public supervision designed to protect bondholders. Issue proceeds must be invested in conformity with the law in assets which, during the entire period until the maturity of the bonds, are capable of covering the preferential claims of the covered bond investors.

On top of that, covered bonds have to (i) be rated AA- (second-highest rating), (ii) have a proven track record as a reliable source of liquidity reflected by a maximum price drop of 10% over 30-day period of stress, (iii) be traded in large, deep and active repo/cash markets with a low level of concentration, and (iv) cannot be issued by the submitting bank itself. Covered bonds meeting these criteria qualify as Level 2A assets rather than Level 1 as under the EU rules and are therefore subject to a haircut of 15% and a cap of 40%.

In July 2017, the BCBS stated that the LCR rules in the EU are not fully aligned with international standards. In particular, the inclusion of high-quality covered bonds as Level 1 assets was criticised. The EU responded to the BCBS comment by highlighting that "the limited broadening of HQLA definition reflects European or national specificities and remains largely consistent with the Basel III LCR Standards. In particular, evidence demonstrates the equivalent liquidity of the additional assets included and, therefore, the choice made is fully consistent with the spirit of the Basel Committee's agreement. [..] The inclusion, under strict conditions, of extremely high-quality covered bonds in Level 1 is motivated by the liquidity patterns of these instruments, which, over long periods of observation, including times of stress, have exhibited liquidity characteristics equivalent to other eligible Level 1 assets".[1]

VII. CAPITAL REQUIREMENT REGULATION (CRR)

The CRR came into force on 1 January 2014. It assigns relatively low risk weights to covered bonds meeting certain criteria. As part of the covered bond harmonisation process, the CRR was overhauled but these changes will not enter into force before 8 July 2022 (please see the separate section "Covered Bond Harmonisation" for more details). Under current rules, covered bonds have to fulfil the requirements of Article 52(4) of the EU Directive 2009/65 (Directive on Undertakings of Collective Investment in Transferable Securities – UCITS) in order to be eligible for the preferential risk weights. On top of that, they have to meet the additional eligibility criteria for cover assets of Article 129 CRR.

Article 52(4) UCITS requires that:

> covered bonds are issued by a EU credit institution;

> they are subject by law to special public supervision designed to protect bondholders;

> the issue proceeds are only invested in eligible assets in accordance with the law;

> the bonds are backed by eligible assets during the entire period until their maturity, and

> in the event of issuer default, investors have a preferential claim on the cover assets covering principal and accrued interest.

Article 129 CRR goes beyond the UCITS requirements and demands that the bonds are only collateralised by the following assets (please note that the rating requirements refer to the credit quality step definition by the EU and generally focus on the second-best rating in case of split ratings):

(a) exposures to or guaranteed by central governments, Eurosystem central banks, public sector entities, regional governments or local authorities in the EU;

1 Basel Committee on Banking Supervision: Assessment of Basel III LCR regulations – European Union, July 2017.

(b) exposures to or guaranteed by third-country central governments and central banks, multilateral development banks, international organisations rated at least AA-, and exposures to or guaranteed by third-country public sector entities, regional governments and local authorities that are rated at least AA- and are risk weighted as exposures to credit institutions, central governments or central banks; lower rated exposures with a minimum rating of A- cannot exceed 20% of the nominal amount of outstanding covered bonds;

(c) exposures to credit institutions with a minimum rating of AA-. The total exposure shall not exceed 15% of the nominal amount of outstanding covered bonds. The supervisory authorities can allow, after consulting EBA, a lower minimum rating of A- for up to 10 % of the total outstanding covered bonds, provided that the application of the higher rating requirement would potentially result in concentration problems. Exposures to EU credit institutions with a maturity not exceeding 100 days shall not be comprised by the AA- requirement but those institutions shall have a minimum rating of A-;

(d) loans secured by residential property up to an LTV of 80 %; or by senior RMBS tranches issued by securitisation entities governed by the laws of a member state. The supervisory authority has to ensure that at least 90% of the underlying assets are composed of residential mortgages that have a maximum LTV of 80%. The senior tranches have to have a minimum rating of AA- and do not exceed 10% of the nominal amount of the outstanding issue;

(e) French residential loans with an LTV of up to 80% and a loan-to-income ratio not exceeding 33% which are fully guaranteed by an eligible protection provider rated at least A-. There shall be no mortgage liens on the residential property when the loan is granted, and for the loans granted from 1 January 2014 the borrower shall be contractually committed not to grant such liens without the consent of the credit institution that granted the loan. The protection provider shall be a supervised financial institution subject to prudential requirements comparable to those applied to credit institutions. Both the credit institution and the protection provider shall carry out a creditworthiness assessment of the borrower;

(f) loans secured by commercial immovable property up to an LTV of 60% or by senior CMBS tranches issued by securitisation entities governed by the laws of a member state. The supervisory authority has to ensure that at least 90% of the underlying assets are composed of commercial mortgages that have a maximum LTV of 60%. The senior tranches have to have a minimum rating of AA- and do not exceed 10% of the nominal amount of the outstanding issue. Commercial mortgage with an LTV of up to 70% can be included if the overcollateralisation is at least 10%;

(g) ship mortgage loans with an LTV of up to 60%.

Transparency requirement

Article 129(7) CRR defines certain transparency requirement for covered bonds. It states that covered bonds are eligible for preferential treatment if the covered bond investor can demonstrate to its regulatory authorities that portfolio information are provided by the issuer at least semi-annually:

> Value of the cover pool and outstanding covered bonds;
> Geographical distribution;
> Type of cover assets;
> Loan size;
> Interest rate and currency risks;
> Maturity profile of cover assets and covered bonds;
> Percentage of loans more than 90 days past due.

Standardised Approach

Covered bonds fulfilling the aforementioned criteria are eligible for a preferential risk weight under the CRR. In contrast to previous regulation, the risk weights under the Standardised Approach are based on the covered bond ratings rather than the issuer ratings. Figure 7 shows that covered bonds rated at least AA-/Aa3 qualify for a 10% risk weighting which increases to 20% for bonds being rated from A+/A1 to BBB-/Baa3. For non-investment grade covered bonds rated at least B-/B3 the risk weight is 50%.

FIGURE 7: RISK WEIGHTINGS OF RATED COVERED BONDS UNDER THE STANDARDISED APPROACH

Credit quality step (covered bonds)	1	2	3	4	5	6
Covered bond rating	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to BB-**	**B+ to B-**	**below B-**
Covered bond risk weight	10%	20%	20%	50%	50%	100%

Source: EU, HSBC (Mapping of credit quality steps to rating is based on the second-highest eligible rating in case of split-ratings)

In case of unrated covered bonds, the risk weighting is linked to the issuer rating. However, the risk weights of the covered bonds are significantly lower than those for senior unsecured exposures (see Figure 8 below).

FIGURE 8: RISK WEIGHTINGS OF UNRATED COVERED BONDS UNDER THE STANDARDISED APPROACH

Credit quality step (Issuer)	1	2	3	4	5	6
Issuer rating	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to BB-**	**B+ to B-**	**below B-**
Issuer risk weight	20%	50%	50%	100%	100%	150%
Covered bond risk weight	10%	20%	20%	50%	50%	100%

Source: EU, HSBC (Mapping of credit quality steps to rating is based on the second-highest eligible rating in case of split-ratings)

Non-CRR compliant covered bonds are generally treated as exposures to credit institutions according to Art. 120 CRR. The risk weighting of the bonds, however, will be based on the actual issue/programme rating rather than the issuer rating (Art 139 (1) CRR). This means that a AAA-rated non-CRR compliant covered bond issued by a single-A rated issuer would have a 20% risk weight (rather than a 50% risk weight).

The Internal Ratings-Based Approach (IRBA)

Under the CRR, banks can opt for using approaches based on internal ratings. Under these Internal Ratings-Based Approaches (IRBA), risk weight calculations are based upon a complex formula. This formula uses as inputs the probability of default within a one-year horizon (PD), the loss given default (LGD), the exposure at default (EAD) and the effective time to maturity (M) of the individual securities.

Under the Foundation IRB (FIRB), financial institutions have to estimate PD based upon their internal risk-scoring models; PD refers to the exposure to the corporate/institution, not the bond itself, and is floored at 0.03%. M should be set to 0.5 years in case of repo transactions and to 2.5 years when assessing all other exposures; M can upon approval from the regulator also be fixed at actual maturity but not shorter than one year and not longer than five. Covered bonds meeting the aforementioned eligibility criteria may be assigned an LGD value of 11.25%.

If a financial institution opts for the Advanced IRB (AIRB) instead, it will have to assess all risk components on an individual basis. Under both approaches, irrespective of the country or region within which the bank holding the covered bond is incorporated, the PD to be employed will always only reflect the PD of the issuer. The PD of the collateral pool is not relevant. In no case can the PD be less than 0.03%. Institutions that opt for the advanced approach may use an LGD lower than 11.25%. Those banks will also use the actual M, though the value will be capped for value below 1 and value above 5.

Figure 9 below shows the risk weighting for different PD assumptions and maturities. In all cases, the LGD is set at 11.25%. In case of the FIRB, the maturity is set at M = 2.5 years – this is highlighted in grey in the figure. The PD is based on Moody's default statistics (for the years 1983-2019), floored at 0.03%. A covered bond issued by a bank with an internal issuer rating equivalent to single-A (which translates into a 1-year PD of 0.06%) and a maturity of 5 years would have a risk weight of 5.81% under the FIRB and of 9.81% under the AIRB.

FIGURE 9: INTERNAL RISK WEIGHTS OF COVERED BONDS UNDER THE FIRB AND THE AIRB

Issuer rating equivalent	PD used	Maturity in years					
		1	2	2.5	3	4	5
Aaa/AAA	0.03%	2.01%	3.22%	3.83%	4.43%	5.65%	6.86%
Aa/AA	0.03%	2.01%	3.22%	3.83%	4.43%	5.65%	6.86%
A/A	0.06%	3.41%	5.01%	5.81%	6.61%	8.21%	9.81%
Baa/BBB	0.17%	7.14%	9.47%	10.64%	11.80%	14.13%	16.46%
Ba/BB	0.85%	18.05%	21.37%	23.04%	24.70%	28.02%	31.34%
B/B	3.21%	29.79%	33.05%	34.69%	36.32%	39.59%	42.85%
below B	9.52%	45.63%	48.70%	50.24%	51.78%	54.85%	57.93%

Source: EU, Moody's, HSBC (FIRB: M= 2.5 years; PD is based on Moody's figures and is floored at 0.03%)

With regard to the relevant insurance regulation at European level, please refer to the following article.

2.2.2 INSURANCE REGULATION – SOLVENCY II

By Florian Eichert, Crédit Agricole

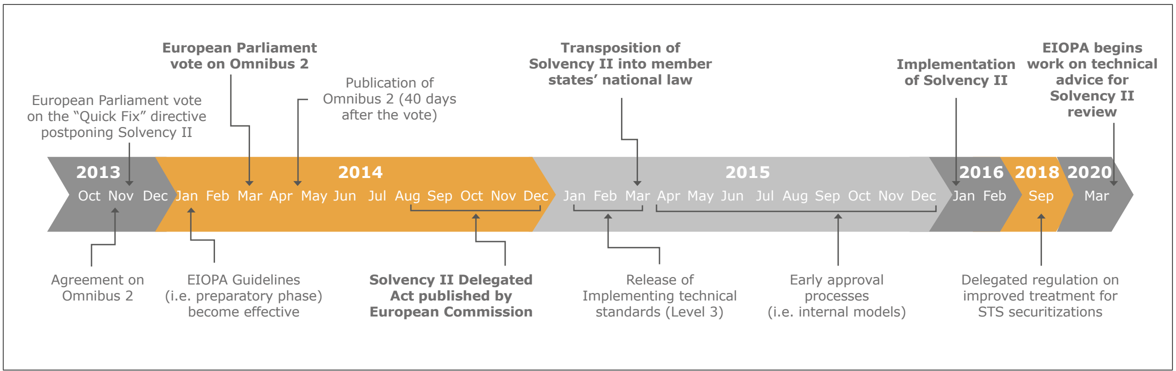
The Solvency II Directive (2009/138/EC) is what the Capital Requirements Directive (CRD) IV is for the banking world – a regulatory regime that introduces risk based capital charges. It is also an attempt to harmonise the EU insurance landscape.

While the Solvency II Directive was adopted by the European Parliament and the Council of the European Union in November 2009, the actual implementation, however, was delayed quite a few times. In the past, the implementation date was rather a moving target that was regularly pushed down the road whenever the previous target became unrealistic.

In the meantime, amendments to the original Solvency II Directive had become necessary to be in line with EU's implementing measures according to the Lisbon Treaty of 2009 and EU's new supervisory structure by introducing the European Insurance and Occupational Pensions Authority (EIOPA). These amendments were implemented through the so-called Omnibus II Directive. The agreement on Omnibus II was passed by the European Parliament on 11 March 2014 after a text had been agreed between the European Commission (EC), Parliament and Council on 13 November 2013.

The EC adopted the Delegated Regulation (EU 2015/35) containing implementing rules for Solvency in October 2014. The first set of implementing rules was then adopted in March 2015, with the second set of guidelines following suit in the third quarter of 2015. Solvency II finally then came into effect on 1 January 2016.

FIGURE 1: TIMELINE OF IMPLEMENTATION



Source: European Commission, Crédit Agricole CIB

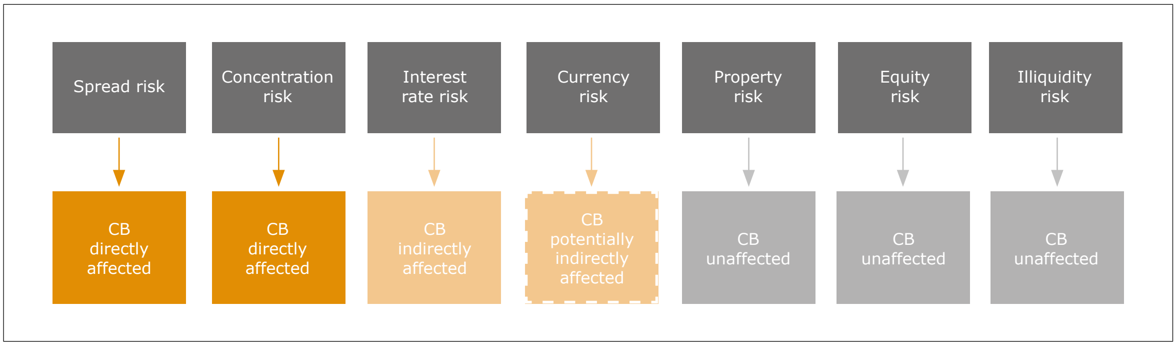
The journey doesn't end there however. There have already been adjustments to the treatment of securitisation (lower spread risk capital charges) for example. In addition to this, the EC's Capital Markets Union (CMU) action plan from September 2015 mentions that while insurance investors are natural long-term investors, they have been retreating from investing in long-term projects. As a result the EC made amendments to the treatment of infrastructure and European long term investment funds. The CMU plan also foresaw yet another change to the treatment of securitisation exposure. With the framework for simple, transparent and standardised securitisation products (STS) in place since December 2017, Solvency II capital charges were lowered for STS products in September 2018 via a delegated regulation. The lower capital charges for STS products apply as from 1 January 2019. Currently, the European Commission (EC) is preparing for a review of the Solvency II regime and EIOPA has been working on a technical advice to the EC on this since March 2020.

OVERVIEW OF SOLVENCY II – WHERE ARE COVERED BONDS IMPACTED?

Solvency II is a highly complex framework which addresses a vast number of different sources of risks that all interact with each other to come up with a final solvency capital requirement (SCR). Risks range from market risk to underwriting risk, longevity risk or default risk on loan exposures.

Covered bonds are mainly affected by the market risk section and specifically mentioned in the spread risk and concentration risk modules.

> Figure 2: Market risk modules in Solvency II and their relevance for covered bonds



Source: EIOPA, Crédit Agricole CIB

SPREAD RISK MODULE

The spread risk module is the biggest single investment specific driver of capital charges under Solvency II. Interest rate risk is an even bigger driver of capital charges overall but other than spread risk is driven by the overall asset and liability structure of an insurance company and not by the individual asset purchased.

EIOPA describes spread risks as the "results from the sensitivity of the value of assets, liabilities and financial instruments to changes in the level or in the volatility of credit spreads over the risk-free interest rate term structure." In other words, we are talking about the spread vulnerability in volatile scenarios. Spread risk applies to virtually all fixed income instruments apart from sovereign debt rated AA- and better.

Since insurance companies are longer term investors than banks, capital charges for investments are also significantly higher than they are for banks. In addition to this, they are not only driven by credit risk, as is the case for the standardised approach in banking regulation, but are also determined by a combination of rating and duration. The weaker the rating and the longer the investment, the higher the capital charge. The spread risk module capital charges are expressed as a charge per year of duration. Initially, Solvency II had planned for a strictly linear relationship between duration and capital. This, however, was changed with the increase per extra year of duration beyond 5Y having been reduced and a further flattening of the increase after 10Y. After all, the long end is exactly where insurance companies are active and regulators did not want to dis-incentivise them through onerous capital charges.

Covered bonds do receive preferential treatment under the spread risk module if they comply with the following criteria:

> They have a credit quality step 0 or 1 which means a minimum rating of AA-;

> They meet the requirements defined in Article 52(4) of the UCITS Directive 2009/65/EC.

For covered bonds that fulfil the UCITS Directive and are rated AAA, a spread risk factor of 0.7% applies per year of duration up to 5Y while AA- to AA+ rated ones have a factor of 0.9%. Covered bonds that do not meet these requirements are treated as senior unsecured exposure. Capital charges are 0.2% higher per duration year.

Determining the duration of a bond is straightforward when it comes to hard bullet covered bonds. Soft bullet structures as well as conditional pass through (CPT) covered bonds have however become much more common often raising the question which maturity is the relevant one. As far as we are aware, Solvency II looks at the extended maturity when determining the spread risk capital charge in the standardised approach. In the IRB approaches investors can work with an expected final maturity date. For soft bullet covered bonds the extra 12 months are thus not major, especially under an IRB approach. For CPT deals that can in theory extend by up to 38 years the story looks slightly different though. Even in an IRB approach, spread risk capital charges under Solvency II will be higher for a comparable hard bullet covered bond with the same original maturity.

When looking at the numbers it is also important to mention that the percentages do not relate to 8% of the invested notional as is the case in the banking world but to the actual invested notional. A 10% risk-weight on covered bonds essentially means a 0.8% capital charge for a bank. Talking about 0.7% capital charge in Solvency II for an equally rated 1Y covered bond also means 0.7% capital relative to the invested notional. The longer the duration of the bond is, the higher the Solvency charge becomes in both absolute terms as well as relative to bank capital charges. While the AAA covered bond with a 1Y maturity is treated slightly better under Solvency II, (0.7% vs. 0.8%), the relationship reverses from year 2 onwards. For an AAA rated 10Y covered bond, insurance companies have to hold 6% of the invested notional in capital, which is 7.5 times as much as banks.

> FIGURE 3: FORMULAS FOR THE SOLVENCY II CAPITAL CHARGE CALCULATIONS FOR COVERED BONDS AND OTHER ASSET CLASSES

Credit quality	Up to 5 years	5 to 10 years	10 to 15 years	15 to 20 years	20 years +
AAA covered	0.7% * D	3.5% + 0.5% * (D -5)	6% + 0.5% * (D -10)	8.5% + 0.5% * (D -15)	11% + 0.5% * (D -20)
AA + to AA- covered	0.9% * D	4.5% + 0.5% * (D -5)	7% + 0.5% * (D -10)	9.5% + 0.5% * (D -15)	12% + 0.5% * (D -20)
A+ to A- covered	1.4% * D	7% + 0.7% * (D -5)	10.5% + 0.5% * (D -10)	13% + 0.5% * (D -15)	15.5% + 0.5% * (D -20)
BBB+ to BBB- covered	2.5% * D	12.5% + 1.5% * (D -5)	20% + 1% * (D -10)	25% + 1% * (D -15)	30% + 0.5% * (D -20)
BB+ to BB- covered	4.5% * D	22.5% + 2.5% * (D -5)	35% + 1.8% * (D -10)	44% + 0.5% * (D -15)	46.6% + 0.5% * (D -20)
Unrated covered	3.0% * D	15% + 1.7% * (D -5)	23.5% + 1.2% * (D -10)	29.5% + 1.2% * (D -15)	35.5% + 0.5% * (D -20)
EU member states' direct central government exposure / guaranteed by EU member central governments (irrespective of rating)	0.0%	0.0%	0.0%	0.0%	0.0%
AAA to AA- sovereign third country	0.0%	0.0%	0.0%	0.0%	0.0%
A+ to A- sovereign	1.1% * D	5.5% + 0.6% * (D -5)	8.4% + 0.5% * (D -10)	10.9% + 0.5% * (D -15)	13.4% + 0.5% * (D -20)
BBB+ to BBB- sovereign	1.4% * D	7% + 0.7% * (D -5)	10.5% + 0.5% * (D -10)	13% + 0.5% * (D -15)	15.5% + 0.5% * (D -20)
BB+ to BB- sovereign	2.5% * D	12.5% + 1.5% * (D -5)	20% + 1% * (D -10)	25% + 1% * (D -15)	30% + 0.5% * (D -20)
AAA corporate	0.9% * D	4.5% + 0.5% * (D -5)	7.0% + 0.5% * (D -10)	9.7% + 0.5% * (D -15)	12.0% + 0.5% * (D -20)
AA+ to AA- corporate	1.1% * D	5.5% + 0.6% * (D -5)	8.4% + 0.5% * (D -10)	10.9% + 0.5% * (D -15)	13.4% + 0.5% * (D -20)
A+ to A- corporate	1.4% * D	7% + 0.7% * (D -5)	10.5% + 0.5% * (D -10)	13% + 0.5% * (D -15)	15.5% + 0.5% * (D -20)
BBB+ to BBB- corporate	2.5% * D	12.5% + 1.5% * (D -5)	20% + 1% * (D -10)	25% + 1% * (D -15)	30% + 0.5% * (D -20)
BB+ to BB- corporate	4.5% * D	22.5% + 2.5% * (D -5)	35% + 1.8% * (D -10)	44% + 0.5% * (D -15)	46.6% + 0.5% * (D -20)
AAA STS securization	1.0% * D	5.0% + 0.6% * (D -5)	8.0% + 0.6% * (D -10)	11% + 0.6% * (D -15)	14.0% + 0.6% * (D -20)
AA + to AA- STS securization	1.2% * D	6.0% + 0.7% * (D -5)	9.5% + 0.5% * (D -10)	12.0% + 0.5% * (D -15)	14.5% + 0.5% * (D -20)
A+ to A- STS securization	1.6% * D	8% + 0.8% * (D -5)	12.0% + 0.6% * (D -10)	15% + 0.6% * (D -15)	18.0% + 0.6% * (D -20)
BBB+ to BBB- STS securization	2.8% * D	14.0% + 1.7% * (D -5)	22.5% + 1.1% * (D -10)	28% + 1.1% * (D -15)	33.5% + 0.6% * (D -20)
BB+ to BB- STS securization	5.6% * D	28.0% + 3.1% * (D -5)	43.5% + 2.2% * (D -10)	54.5% + 0.6% * (D -15)	57.5% + 0.6% * (D -20)

Source: EIOPA, Crédit Agricole CIB

> Figure 4: Solvency II capital charges for covered bonds and other asset classes

Credit quality	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA covered	0.7%	1.4%	2.1%	2.8%	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%
AA + to AA- covered	0.9%	1.8%	2.7%	3.6%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%	9.0%	9.5%
A+ to A- covered	1.4%	2.8%	4.2%	5.6%	7.0%	7.7%	8.4%	9.1%	9.8%	10.5%	11.0%	11.5%	12.0%	12.5%	13.0%
BBB+ to BBB- covered	2.5%	5.0%	7.5%	10.0%	12.5%	14.0%	15.5%	17.0%	18.5%	20.0%	21.0%	22.0%	23.0%	24.0%	25.0%
BB+ to BB- covered	4.5%	9.0%	13.5%	18.0%	22.5%	25.0%	27.5%	30.0%	32.5%	35.0%	36.8%	38.6%	40.4%	42.2%	44.0%
Unrated covered	3.0%	6.0%	9.0%	12.0%	15.0%	16.7%	18.4%	20.1%	21.8%	23.5%	24.7%	25.9%	27.1%	28.3%	29.5%
AAA to AA- EU sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A+ to A- EU sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBB+ to BBB- EU sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BB+ to BB- EU sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AAA to AA- sovereign	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A+ to A- sovereign	1.1%	2.2%	3.3%	4.4%	5.5%	6.1%	6.7%	7.3%	7.9%	8.5%	8.9%	9.4%	9.9%	10.4%	10.9%
BBB+ to BBB- sovereign	1.4%	2.8%	4.2%	5.6%	7.0%	7.7%	8.4%	9.1%	9.8%	10.5%	11.0%	11.5%	12.0%	12.5%	13.0%
BB+ to BB- sovereign	2.5%	5.0%	7.5%	10.0%	12.5%	14.0%	15.5%	17.0%	18.5%	20.0%	20.5%	22.0%	23.0%	24.0%	25.0%
AAA corporate	0.9%	1.8%	2.7%	3.6%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%	9.0%	9.5%
AA+ to AA- corporate	1.1%	2.2%	3.3%	4.4%	5.5%	6.1%	6.7%	7.3%	7.9%	8.4%	8.9%	9.4%	9.9%	10.4%	10.9%
A+ to A- corporate	1.4%	2.8%	4.2%	5.6%	7.0%	7.7%	8.4%	9.1%	9.8%	10.5%	11.0%	11.5%	12.0%	12.5%	13.0%
BBB+ to BBB- corporate	2.5%	5.0%	7.5%	10.0%	12.5%	14.0%	15.5%	17.0%	18.5%	20.0%	21.0%	22.0%	23.0%	24.0%	25.0%
BB+ to BB- corporate	4.5%	9.0%	13.5%	18.0%	22.5%	25.0%	27.5%	30.0%	32.5%	35.0%	36.8%	38.6%	40.4%	42.2%	44.0%
AAA STS securization	1.0%	2.0%	3.0%	4.0%	5.0%	5.6%	6.2%	6.8%	7.4%	8.0%	8.6%	9.2%	9.8%	10.4%	11.0%
AA + to AA- STS securization	1.2%	2.4%	3.6%	4.8%	6.0%	6.7%	7.4%	8.1%	8.8%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%
A+ to A- STS securization	1.6%	3.2%	4.8%	6.4%	8.0%	8.8%	9.6%	10.4%	11.2%	12.0%	12.6%	13.2%	13.8%	14.4%	15.0%
BBB+ to BBB- STS securization	2.8%	5.6%	8.4%	11.2%	14.0%	15.7%	17.4%	19.1%	20.8%	22.5%	23.6%	24.7%	25.8%	26.9%	28.0%
BB+ to BB- STS securization	5.6%	11.2%	16.8%	22.4%	28.0%	31.1%	34.2%	37.3%	40.4%	43.5%	45.7%	47.9%	50.1%	52.3%	54.5%

Source: EIOPA, Crédit Agricole CIB

The capital charge differences between AAA and AA rated covered bonds are noticeable but not huge (1% difference for 10Y). The moment covered bonds drop into single A space and thus lose their preferential treatment, differences start to become very pronounced though (4.5% difference for 10Y) and with BBB (14.0% difference for 10Y) and BB covered bonds (29% difference for 10Y) they become massive.

When looking across asset classes, it becomes apparent that Solvency II favours sovereign debt over corporate and covered bonds. Nonetheless, differences between corporates and equally rated covered bonds are not massive (1.2% difference for 10Y AAA).

There have been improvements in how especially lower rated type 1 securitisation deals are treated. While keeping the 2.1% spread risk charge for AAA rated ABS, the figure was set at a flat 3% per year of duration for those ABS rated AA to BBB. The latter had still had a spread risk charge of 8.5% per year of duration before the adjustment. Despite this even the highest quality securitisation have around three times the capital requirement of AAA covered bonds in 5Y (10.5% vs. 3.5%) and three and a half times in 10Y (21% vs. 6%). For lower rated ABS, the difference to equally rated covered bonds in for example 10Y is 23% (30% vs. 7%).

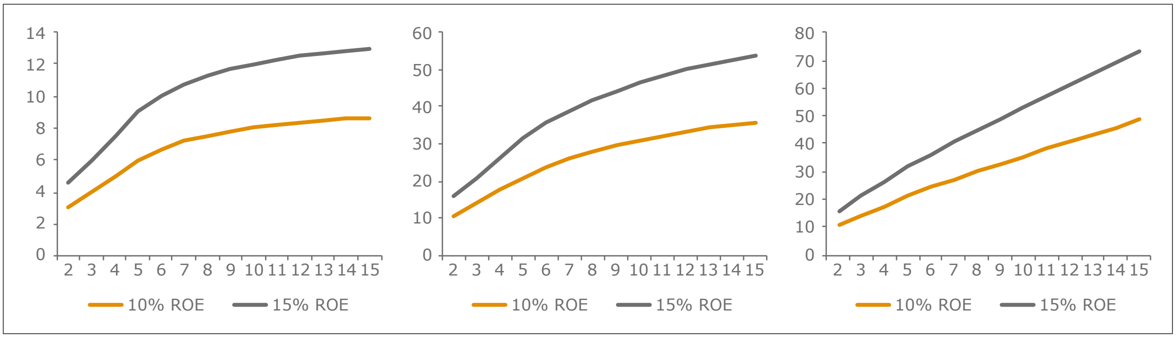
Trying to translate the different capital requirements into spread numbers that one product has to yield in excess of another is not a straightforward exercise. After all, spread risk is merely one factor and there are many others driving the final SCR. It also depends on the return on equity an insurance investor needs to generate. Nonetheless, we have tried to estimate the additional yield required to cover the extra capital from this risk module.

> We have calculated the average capital charge for a buy and hold investor over the whole life of the investment;

> We have then used two different ROEs, 10% and 15%, to calculate the extra return needed to fulfil this return requirement.

> Figures 5: Spread in bp needed to compensate for additional capital between...

...AA rated covered and AAA rated covered bond by maturity | ...A rated covered / corporate and AAA rated covered bond by maturity | ...AAA rated covered and AAA rated sovereign bond by maturity



Source: EIOPA, Crédit Agricole CIB

The figures above show the required spread pickup for a range of product pairs.

CONCENTRATION RISK MODULE

The concentration risk is defined by the EIOPA as "the risk regarding the accumulation of exposures with the same counterparty" which means that large exposures on a single issuer should be limited. Other concentration types dealing with geographical area, industry sector or the like are not considered though.

Similar to the spread risk module, covered bonds receive a preferential treatment here in the sense that the concentration threshold is much higher at 15% than it would be for equally rated corporate debt for which exposure to a single counterparty is limited to 3%. In addition to this covered bonds are considered as a distinct single name exposure, regardless of other exposures to the same counterparty. In other words, buying covered bonds does not impact the ability or limit the quantity of unsecured exposure towards the issuer an insurance company can buy.

> Figure 6: Concentration risk thresholds by bond type and rating

Type of bond	Rating	Concentration threshold
Corporate bonds, sub + hybrid debt, ABS, CDO	AAA – AA	3.0%
	A	3.0%
	BBB	1.5%
	BB or lower	1.5%
Covered Bonds	AAA – AA	15.0%
Exposure to EEA state, multilateral development banks, international organisations, ECB	–	none

Source: EIOPA, Crédit Agricole CIB

BOTTOM LINE

Solvency II is probably the regulatory regime in which ratings still play the biggest role and in which sovereign debt is given the biggest advantage over private-sector debt. It is true that in bank regulation EU member states do still have a 0% RW; but since Solvency II is calibrated for long-term investors and covers credit risk as well as market volatility risk, the absolute capital charges are a multiple of those for banks and relative differences are magnified.

Apart from the comparison with sovereign debt, highly rated UCITS-compliant covered bonds do fare relatively well overall. They get preferential treatment in both the spread risk and concentration risk modules as long as they are rated at least AA−. Non-UCITS-compliant covered bonds are treated as senior unsecured exposure but as long as they are highly rated, capital charge differences to UCITS-compliant covered bonds are not major. Capital charges for covered bonds do, however, start to go up the moment ratings drop to below AA−. After all, even UCITS-compliant covered bonds are then treated as senior unsecured exposure. While the step to single A ratings is still manageable, dropping to BBB and below means that capital charges become very onerous.

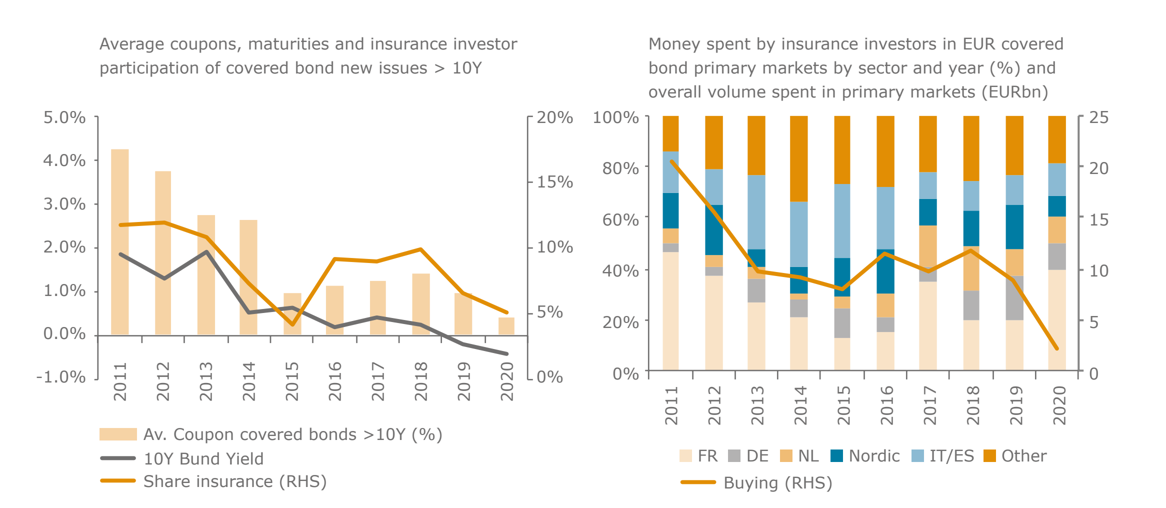
In addition to the spread risk capital treatment, overall capital charges under Solvency II are also determined by the size of the asset–liability mismatch. Long-dated covered bonds are an asset class that is able to close the gap to insurance companies' long-dated liabilities while giving the added security of the underlying framework, product support and collateral.

While there are a number of areas that are still being looked at within the Solvency II framework, the treatment of covered bonds is and has been very stable. However, the Covered Bond Directive (CBD) which was passed by the European Parliament in April 2019 will replace the reference to UCITS 52 (4) in many European regulatory documents including the Solvency II delegated act. If the reference is merely changed from UCITS to the CBD, it will not lead to a different treatment for covered bonds for insurance companies. Covered bonds will thus remain an integral part of insurance companies' investments despite the disadvantage to sovereign debt.

For insurance companies, the far bigger problem has been the very low absolute yield levels as well as spreads in EUR markets. Before the CBPP 3 started in 2014, insurance companies' share in covered bond new issues with maturities of longer than 10Y was as high as 45% (2013). Lower yields as well as QE buying halved this share in the years that followed. New issues above 10Y had an average maturity of around 15 years in 2019 and 2020. Despite this, average coupons have dropped to well below the 1% mark. As a consequence, the average insurance sector participation has dropped to below 15% in those deals with their share in all EUR benchmark covered bond issuance (across the curve) falling to around 5% in 2020.

Covered bonds can still make sense. After all, the problem of low coupons exists across asset classes and for insurance companies without strict minimum yield targets, covered bonds do offer sizeable pickup above sovereign debt while being fairly tight vs credit products. Covered bonds also do add diversification benefits. Nonetheless the focus of many insurance companies has been on equities, infrastructure, real estate and direct lending to cope with the low yields.

> Figure 7: Insurance participation in EUR benchmark covered bond new issues



Source: Bloomberg, Covered Bond Report, Crédit Agricole CIB

2.2.3 MREL AND TLAC AND PROTECTED COVERED BONDS

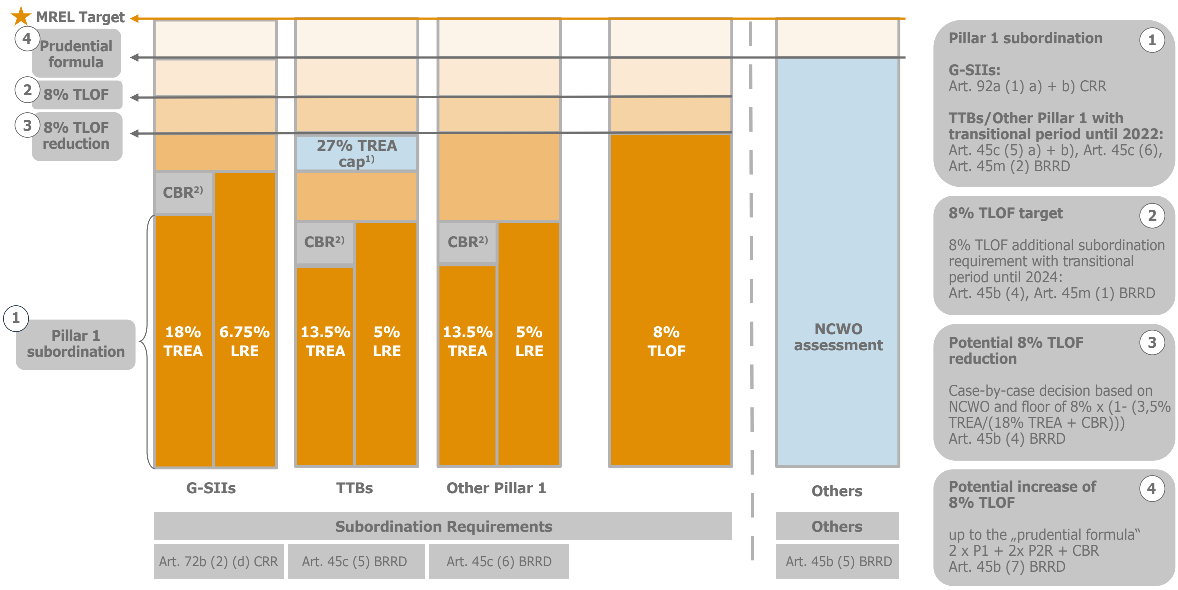
By Alexandra Schadow, Landesbank Baden-Württemberg

Banking Package sets course

If a financial institution finds itself in difficulty and the supervisory authority determines that it is "failing or likely to fail", the bank may be put into resolution if certain conditions are met. Four tools are available under resolution: sale, bridge institutions, asset separation, and bail-in. Under a bail-in, the resolution authority is given powers to write down liabilities or convert them into equity in order to absorb losses and carry out re-capitalization measures. This approach presupposes that all institutions have sufficient "bail-in-able" capital. To this end, Article 45 of the first BRRD (Bank Recovery and Resolution Directive; Directive 2014/59/EU) defined a separate minimum requirement for own funds and eligible liabilities (MREL). The same idea underlies the total loss absorbing capacity (TLAC) requirement, which in 2015, through FSB (Financial Stability Board), applied only to global systemically important institutions (G-SII). The subordination of permitted liabilities explicitly demanded by TLAC and compliance with the "no-creditor-worse-off" (NCWO) principle led to amendments to the corresponding laws in certain countries. However, the results varied, which was reflected in some cases in very different creditor hierarchies. This in turn sparked a call for a common approach at the EU level and led to proposals for the adaptation of many EU laws. In its reform package of 23 November 2016, the EU Commission presented proposals for numerous amendments to CRD (Capital Requirements Directive; Directive 2013/36/EU), CRR (Capital Requirements Regulation; Regulation 575/2013), BRRD, and SRMR (Single Resolution Mechanism Regulation; Regulation 806/2014), also called the "banking package". A key issue in this connection was the integration of TLAC requirements into the European legislative framework and their interaction with MREL. A central demand in this context was the introduction of a new asset class known as "senior non-preferred" and its position in the insolvency hierarchy. By means of an urgent procedure, Article 108 BRRD II was adopted on 12 December 2017 to create this new asset class throughout Europe and define the insolvency hierarchy. The directive (Directive 2017/2399/EU) is restricted to just two types of subordination – contractual and structural. The directive had to be transposed into national law by 29 December 2018.

After the banking package was adopted on 20 May 2019, publication in the European Official Journal followed on 7 June 2019. The amendments of BRRD, CRD, CRR, and SRMR came into force on 27 June 2019, giving 18 months to transpose the directives into national law. This means that the important issue of bank resolutions has been further developed and will be given a uniform EU-wide status. A significant idea regarding the EU Commission's proposal, which has been pursued by all, is the combination of TLAC and MREL. However, G-SIIs, top-tier banks (TTBs) with total assets of more than EUR 100 bn, other Pillar 1 banks with a potentially systemic risk, and all other institutions will be treated differently. A harmonized minimum level applies to G-SIIs as in the case of TLAC. This is to become a Pillar 1 requirement and is found in the amended CRR. From January 2019 onwards, G-SIIs have to maintain TLAC corresponding to 16% of total risk exposure amount (TREA) and 6% of the leverage ratio exposure measure (LRE) as a minimum. These ratios will rise to 18% and 6.75% respectively beginning in 2022. However, EU rules with minimum subordination requirements go beyond this. Beginning in 2022, the maximum of the following different ratios must be fulfilled by G-SIIs: the higher of 18% TREA + combined buffer requirements (CBR); 6.75% of LRE; or 8% total liabilities and own funds (TLOF), with the possibility for supervisory authorities to permit a lower level, but greater than 8% TLOF x (1-(3.5% TREA/(18% TREA + CBR))). Moreover, institution-specific add-ons are possible. These are, however, included in BRRD and SRMR as Pillar 2 requirements. For top-tier banks, the Pillar 1 requirement will be the higher of 13.5% TREA + CBR; 5.0% of LRE; or 8% TLOF with the possibility of a lower level but limited to 8% TLOF x (1-(3,5% TREA/(18% TREA + CBR))). Furthermore, there will be a cap at 27% TREA. By contrast, other institutions are not subject to an exact ratio for MREL. This is only a Pillar 2 requirement, which is determined on a case-by-case basis for each bank and which is set out in detail in BRRD and SRMR. While the methods used to calculate the two requirements were harmonized – namely, the two points of reference total risk exposure amount and leverage ratio exposure measure – they still differ considerably in terms of subordination. In contrast to TLAC, liabilities still do not generally have to be subordinated to count towards MREL. A general subordination requirement will be explicitly introduced for G-SIIs. Especially for other banks, the authority may demand this on a case-by-case basis. However, it is worth mentioning at this point that all banks including G-SIIs can use up to 3.5% senior preferred for the fulfilment of MREL, with the approval of the resolution authority. However, this rule should be used only rarely in order not to run the risk of violating the "no-creditor-worse-off" principle. The complexity of the regulations for the various institutions has increased dramatically in the course of the legislative process. In addition, the resolution authorities are granted a high degree of further flexibility to impose additional requirements.

> Figure 1: MREL Overview for G-SIIs, TTBs, other Pillar 1 banks and other institutions (Banking package)



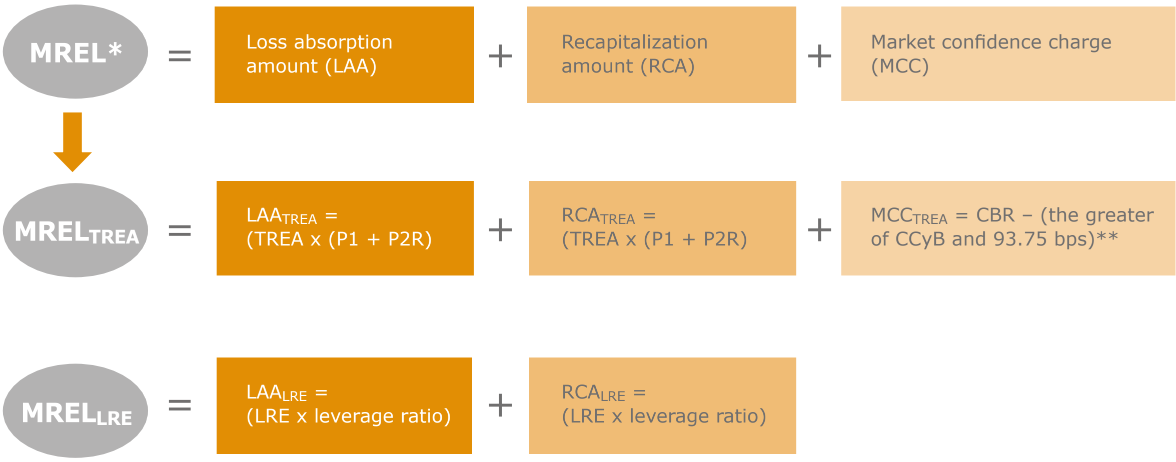
1) Art. 45b (4) Subparagraph 2
2) TREA: no counting of CET1 used for CBR
LRE: CBR can be used for MREL

Sources: banking package, SRB, LBBW Research

It is the task of SRB (Single Resolution Board), which is based on BRRD, SRMR, and the Delegated Act 2016/1450 of 23 May 2016, to set MREL requirements for each institution. Following a consultation period from 17 February to 6 March 2020, the SRB policy under the banking package was published on 20 May 2020. The two components, namely loss absorption and recapitalization, are still the main factors in the measurement of the MREL requirements. What is new is that the MREL requirements of both loss absorption amount (LAA) and recapitalization amount (RCA) must be fulfilled in the measured variables of LRE and TREA. Within RCA expressed in TREA there may also be a component to maintain market confidence referred to as the "market confidence charge" (MCC). The main components are the Pillar 1 capital requirements (P1) and the total Pillar 2 requirement (P2R), which are based on the individual SREP process of a single institution. While LAA must be met by each bank, RCA can be set at zero. However, this applies only to banks that are subject to liquidation under regular insolvency proceedings. All components are added up and result in the overall requirement. MREL specifications for the individual institutes will be specified in more detail at the beginning of 2021, together with a binding intermediate target to be achieved by 1 January 2022. This will be followed by a second intermediate target (informative) on 1 January 2023. The final MREL target must be achieved by 1 January 2024.

The coronavirus now ensures the necessary flexibility of requirements. On the one hand, the SRB signalled that it would postpone less urgent information and data requests. On the other hand, SRB wants to take into account the capital relief measures in the context of Corona in the course of the upcoming MREL decisions. In addition, the SRB is prepared to compromise on the existing transitional periods for the establishment of MREL.

> Figure 2: Simplified approach for MREL requirements on the basis of SRB policy 2020



Legend:
*SRB default formula
**SRB 2020 resolution planning; 93.75 bps will be lowered by 31.25 bps in each planning cycle down to 0
TREA = Total risk exposure amount; Article 92 (3) CRR
LRE = Leverage ratio exposure measure; Article 429 and 429a CRR
P1 = Total Pillar 1 requirement; Article 92 CRR
P2R = Total Pillar 2 requirement; Article 104 CRD
CBR = Combined buffer requirement; Article 128 CRD

Sources: banking package, SRB, LBBW Research

Covered bonds in light of TLAC and MREL

Covered bonds are still explicitly excluded from bail-in by the rules of Article 44 (2) b) BRRD. This includes covered bonds as defined in Art. 3 (1) of Directive (EU) 2019/2162 or, with regard to a bond that was issued before 8 July 2022, covered bonds that are UCITS-compliant (Directive 2009/65/EC Article 52 (4)). There is just one restriction that allows covered bonds to be bailed in: Namely, if the liabilities from the covered bond exceed the corresponding collateral in the cover pool and the resolution authority believes a bail-in for the "uncovered" part is appropriate. This would, however, correspond to a cover shortfall, which is not allowed by law. The covered bond exception in Article 44 (2) b) BRRD is unaffected by the amendments to BRRD. Covered bonds will continue to enjoy special protection even after the adoption of the new BRRD and the efforts of the harmonised covered bond directive and regulation.

Regarding TLAC and MREL, the EU banking package includes a new category of "eligible liabilities" in Chapter 5a of CRR. Under Article 72a (2) (e) CRR of this chapter, covered bonds are classified as being not eligible. This means that covered bonds, being exempted from bail-in, are not eligible for MREL. However, EU legislation (Article 3 Delegated Regulation 2016/1450) requires that the resolution authority must identify all liabilities that are excluded from bail-in. MREL must also be met with regard to all exclusions. The main objective is to build up a correspondingly sufficient MREL buffer so that bail-in exceptions do not have to be written down or converted.

In general, a standardised approach applies to the measurement of MREL. Nevertheless, the resolution authority may adjust the standardised approach to take account of the institution's business model, funding profile, and overall risk profile. This decision is based on the results of the SREP process. An upward or downward adjustment may be made. It must, however, reasonably reflect the institution's resolvability. With regard to business models, MREL already provides for mortgage credit institutions to be treated differently. However, there is one exception in BRRD for mortgage credit institutions financed by covered bonds. If they are not allowed to receive deposits, the resolution authority may exclude them from the MREL requirement. This, in turn, is only possible in a realisable winding-up under a national insolvency procedure or other types of measures in accordance with BRRD resolution tools and in line with the resolution objectives. This exception was also confirmed in the applied version of Article 45a (1) BRRD.

Overall, covered bonds retain their privileged status as a funding instrument even in light of the banking package for CRD, CRR, BRRD, and SRMR. While the rules of TLAC and MREL are being harmonised, implementation into law is very complex and very difficult for investors to understand. The definition of the insolvency hierarchy in Article 108 BRRD and its transposition into national law kicked off issuance activity in the new senior non-preferred asset class across Europe. In view of the further build-up of MREL-eligible liabilities, we also expect brisk issuing activity in 2020. Nevertheless, covered bonds will remain part of the liability side of banks. The costs of refinancing covered bonds are still very attractive for issuers and, in our opinion, create a counterweight to the relatively expensive senior non-preferred bonds. The issuance capacity of covered bonds depends primarily on the availability of cover pool assets, which in turn is attributable mainly to the performance of the real economy. Only the ECB refinancing programs TLTRO III and PELTRO can create competition here. Many banks are likely to take advantage of the attractive conditions. Nevertheless, these programs focus on maturities of up to a maximum of 3 years, which means that covered bonds will remain a reliable funding instrument especially in longer maturities. In addition, there is also likely to be a period after the ECB programs so that the covered bond as a whole is likely to defend its very important place among funding instruments.

2.3 THE REPO TREATMENT OF COVERED BONDS BY CENTRAL BANKS

By Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group

I. CENTRAL BANK REPOS: THE SAFETY NET FOR THE BANKING SYSTEM

As part of their monetary policy, central banks across the globe provide liquidity to the banking sector. This is often done in form of repo transactions which require the eligible counterparties to provide collateral in order to receive liquidity from the central banks. The central banks typically have strict eligibility criteria for these collateral assets and demand different haircuts for certain assets, depending on the credit quality of the assets and their maturity.

The role of covered bonds in monetary operations varies by jurisdiction, not least since the nature of those operations is quite heterogeneous across jurisdictions. Broadly speaking, covered bonds receive more favourable treatment amongst those countries in which they play a more pivotal role in the funding of the domestic banking sector. This applied primarily in terms of eligibility of covered bonds as collateral for repo operations, but also in terms of the haircuts. At many of the major central banks (at least some types of) covered bonds are eligible as collateral in the discount window for emergency lending.

> FIGURE 1: COMPARING THE ELIGIBILITY OF COVERED BONDS FOR MONETARY POLICY OPERATIONS

Central Bank	Operation	Covered Bonds eligible?	Eligible Covered Bonds	Currency	Minimum Rating	Rating Treatment	Minimum Size	Own-name Covered bonds?
ECB	Repo Operations (Main and Long term refinancing operations)	Yes	Covered bonds compliant with UCITS Article 52(4) or similar safeguards	EUR, USD, GBP, JPY[1]	Up to BBB-	Best Rating	EUR 1 bn for Jumbo Covered Bonds, otherwise none	Yes
Fed	SOMA Operations	No	None	USD	n/a	n/a	n/a	n/a
	Discount Window	Yes	German Pfandbriefe	AUD, CAD, CHF, DNK, EUR, GBP, JPY, SEK	AAA	Lowest Rating	n/a	No
BoE	Operating Standing Facilities, Short term OMOs	No	n/a	GBP, EUR, USD, AUD, CAD, CHF, SEK	n/a	n/a	n/a	n/a
	Level B Collateral (ILTR, DWF, CTRF and FLS)	Yes	UK, French, German regulated covered bonds		Broadly equivalent to AAA	Rating references are indicative. Bank of England forms its own independent view	GBP 1 bn or EUR 1 bn (depending on issuance currency)	No
	Level C Collateral (ILTR, DWF, CTRF and FLS)	Yes	UK, US[2] & EEA (based on the location of the underlying assets)		Broadly equivalent to A-/A3		None	Yes

1 Under the ECB's Temporary Framework, foreign currency-denominated debt instruments from EEA based issuers constitute eligible collateral for Eurosystem credit operations since 2012. In addition to the haircuts applicable to similar EUR-denominated securities, a further mark-down will be applied (16% for USD and GBP, 26% for JPY).

2 Only in case of SME loans, commercial real estate loans and certain Export Credit Agency guarantee loans.

Central Bank	Operation	Covered Bonds eligible?	Eligible Covered Bonds	Currency	Minimum Rating	Rating Treatment	Minimum Size	Own-name Covered bonds?
SNB	Repo operations, Standing Facili-ties	Yes From 2015 on, Covered Bonds must be eligible under the Swiss LCR framework	Any covered fulfilling the eligible security and rating criteria, but not issued by a Swiss bank	CHF	Security and issuer's country: AA-/Aa3	Second-highest Rating	CHF 100 m equivalent (issuance amount)	No
			Any covered fulfilling the eligible security and rating criteria, but not issued by a Swiss bank	EUR, USD, GBP, DKK, SEK, NOK	Security: AA-/Aa3 with various exceptions Issuer's country: AA-/Aa3		EUR 1 bn USD 1 bn GBP 750 m DKK 7.5 bn SEK 10 bn NOK 10 bn	
Norges Bank	Repo Operations	Yes	Any covered fulfilling the eligible security criteria	NOK, SEK, DKK, EUR, USD, GBP, JPY, AUD, NZD, CHF, CAD	Domestic currency: None but BBB- for favour-able liquidity category (II not III)	Second-highest-Rating	None	Yes
					Foreign Bonds: A/A2			
Reserve Bank of Australia (RBA)	Repo Operations	Yes	Any covered bond fulfilling the eligible security criteria	AUD	AAA or BBB+ for domestic covered bonds >1Y	Lowest rating (of at least two rat-ing agencies)	None	No
Reserve Bank of New Zealand (RBNZ)	Repo and/or Swap of NZ Government Bonds	No	None	n/a	n/a	n/a	n/a	n/a
	Overnight Repo Operations, Bond Lending Facilities	Yes	Any covered bond fulfilling the eligible criteria on the cover pool composition	NZD	AAA from at least two rating agencies. If more than two ratings, then at least two agencies must rate the issue AAA, and no rating is below AA+		None	No
Bank of Canada	Standing Liquidity Facility	Yes	Canadian covered bonds	CAD	At least two ratings, second highest must be at least A (low) by DBRS, A3 by Moody's, or A- by S&P or Fitch.		n/a	No
Danmark National-bank	Credit facilities	Yes	Danish covered bonds	DKK / EUR	n/a		EUR 1 bn or equivalent in DKK (higher haircut for smaller issue size)	n/a

Source: HSBC, Central Banks

II. EURO AREA: ELIGIBILITY CRITERIA FOR COLLATERAL IN EUROSYSTEM OPERATIONS

The ECB has been a key source of liquidity for banks in the Eurosystem during the credit crunch and the European debt crisis through its repo operations. Within the ECB's liquidity operations, covered bonds play an increasingly important role. While in certain periods during the sovereign and banking crisis the benchmark covered bond market was shut for many issuers out of Europe's periphery, the ECB continued to provide liquidity to those banks which were able to post their own covered bonds as collateral. Many covered bond programmes have therefore been set up not just as an additional funding channel for the banks, but also in order to allow those banks to use the repo facilities at the ECB as means to access liquidity in a closed wholesale market.

ECB repo operations

Article 18.1 of the Statute of the European System of Central Banks and of the European Central Bank states that the ECB and the national central banks may conduct credit operations with credit institutions and other market participants, as long as lending is "based on adequate collateral"[3]. According to the ECB, adequacy means firstly, that collateral must protect against losses in credit operations, and secondly, that there must be sufficient collateral potentially available to ensure that the Eurosystem can carry out its tasks.

Consequently, underlying assets have to fulfil certain criteria in order to be eligible for Eurosystem monetary policy operations. The Eurosystem has developed a single framework for eligible assets common to all Eurosystem credit operations (the "single list"). There is no collateral differentiation between monetary policy instruments or intraday credit, and a single auction rate is applicable to different types of collateral in tender operations. The scope of eligible collateral is broad and includes secured assets like covered bonds and ABS, the latter of which can be backed by receivables such as residential and commercial loans (secured and unsecured), auto loans, lease receivables etc., provided they satisfy certain eligibility criteria (set out below), as well as unsecured claims against governments, credit institutions or corporates.

The Eurosystem additionally applies risk control measures in the valuation of underlying assets. The value of the underlying asset is calculated as the market value of the asset less a certain percentage ("valuation haircut"). The haircut-adjusted market value of the underlying assets used in its liquidity-providing reverse transactions must be maintained over time. This implies that if the value, measured on a regular basis, of the underlying assets falls below a certain level, the national central bank will require the counterparty to supply additional assets or cash (margin call). Similarly, if the value of the underlying assets, following their revaluation, exceeds a certain level, the counterparty may retrieve the excess assets or cash. The current eligibility of assets in the ECB framework and recent changes to this are set out below:

> Figure 2: Eligibility of assets in the ECB framework

Criteria	Standard Collateral Rules
Type of Asset	> Debt instrument, including covered bonds with (a) a fixed, unconditional principal amount (except for ABS) or (b) an unconditional principal amount that is linked to only one euro area inflation index at a single point in time, containing no other complex structures > Coupon should be zero coupon, fixed-rate coupon, multi-step coupon or floating-rate coupon linked to an interest rate reference or yield of one euro area government bond with a maturity of one year or less or inflation-indexed
Definition of Covered Bonds	> The ECB does not provide an official definition of what they classify as covered bonds in the context of eligible collateral > In general, 'Covered Bank Bonds' for ECB collateral purposes means bonds issued in accordance with Article 52 (4) of the UCITS Directive, (i.e. subject to covered bond specific legislation) or similar safeguards > Covered bonds with external, non-intra group MBS as well as both internal and external public sector ABS in the cover pool are no longer eligible as collateral for repo transactions
Cash Flow Backing ABS	> Must be legally acquired in accordance with the laws of a member state in a "true sale" > Must not consist of credit-linked notes (i.e. cannot be a synthetic structure), swaps or other derivatives, synthetic securities or contain tranches of other ABS

3 Protocol on the Statute of the European System of Central Banks and of the ECB, Article 18.1.

Criteria	Standard Collateral Rules
Tranche and Rating	> Tranche (or sub-tranche) must not be subordinated to other tranches of the same issue > The minimum rating threshold is BBB- (S&P) / Baa3 (Moody's) / BBB- (Fitch) / BBBL (DBRS) based on a "best rating approach", so only one rating at this level is required for eligibility > Assets will remain eligible in the event of rating downgrades as long as their rating remains at or above credit quality step 5 (BB (S&P) / Ba2 (Moody's) / BB (Fitch) / BB (DBRS)* > The minimum ratings for ABS are A- (S&P) / A3 (Moody's) / A- (Fitch) / AL (DBRS) on a second-best basis. Certain ABS fulfilling additional requirements could qualify if they have at least two triple-B ratings > ABS will remain eligible in the event of rating downgrades as long as their rating remains at or above credit quality step 4 (BB+ (S&P) / Ba1 (Moody's) / BB+ (Fitch) / BBH (DBRS)* > The use of third-party rating tools will be phased out
Place of Issue	> European Economic Area (EEA)
Settlement Procedures	> Transferable in book-entry form > Held and settled in the euro area
Acceptable Market	> Debt instrument must be admitted to trading on a regulated market or a non-regulated market as specified by the ECB
Type of Issuer/ Guarantor	> Central banks, public sector entities, agencies[4], credit institutions, financial corporations other than credit institutions, non-financial corporations, multilateral development banks or international organisations > The recognition of an entity as multilateral development bank or international organisation based on an ECB assessment is no longer possible
Place of Establishment of the Issuer/ Guarantor	> Issuer must be established in the EEA or in non-EEA G10 countries and guarantors must be established in the EEA
Currency of Denomination	> EUR, USD, GBP, JPY[5]

Source: HSBC, ECB

* These changes were made due to the Covid-19 crisis and are temporary. The measures will apply until September 2021 when the first early repayment of the TLTRO-III takes place.

In December 2017 the ECB announced several fundamental changes to its eligibility criteria which entered into force on 16 April 2018.

> The ECB removed the favourable treatment of floating rate assets. Instead of applying a low uniform haircut to all variable assets, the new valuation haircuts are based on the residual maturity of the assets.

> The residual maturity for own-use covered bonds will be defined as the maximum legal maturity, taking into account any extension periods of soft bullets and conditional pass-through covered bonds.

> Unsecured bank bonds issued after 16 April 2018 that are subject to statutory, contractual or structural subordination as well as unsecured bank debt from non-EEA issuers are ineligible as repo collateral. Senior preferred unsecured bank bonds remain eligible as collateral.

> Commercial mortgage-backed securities (CMBSs) lost their collateral eligibility, owing to their relatively complex nature.

4 "agencies" are issuers or guarantors of debt instruments that the ECB has classified as agencies.

5 Under the ECB's Temporary Framework, foreign currency-denominated debt instruments from EEA based issuers constitute eligible collateral for Eurosystem credit operations since 2012. In addition to the haircuts applicable to similar EUR-denominated securities, a further mark-down will be applied (16% for USD and GBP, 26% for JPY).

In April 2020, the ECB introduced further Covid-19 related measures to facilitate the availability of collateral which will remain in place until September 2021 when the first early repayment of the TLTRO-III takes place. These measures include among other.

> Acceptance of ACC (additional credit claims) backed by Covid-19 government guarantees as collateral.
> 'Freezing' of the credit ratings of the collateral assets at the level as of 7 April 2020. Assets will remain eligible in the event of rating downgrades as long as their rating remains at or above credit quality step 5 (CQS 5; BB/Ba2/BB) or CQS 4 (BB+/Ba1/BBH) in the case of ABS.
> Proportionate reduction of haircuts by 20%
> Own-use covered bonds shall be subject to an additional valuation haircut of 6.4% (credit quality steps 1 and 2), and 9.6% (credit quality step 3)
> Increase in the concentration limit for unsecured bank bonds from 2.5% to 10%.
> Acceptance of Greek sovereign bonds as collateral.

> FIGURE 3: ECB HAIRCUTS BY LIQUIDITY CATEGORY AND RESIDUAL MATURITY*

Credit Quality	**Residual maturity (years)**	**Category I** (Government Bonds)			**Category II** (Local & Regional Govt, Supras & Agencies, Jumbo Covered Bonds*)			**Category III** (Traditional and other non-Jumbo Covered Bonds*, Corporates Bonds)			**Category IV** (Unsecured Bank Bonds*)			**Category V** (Asset-backed securities*)
		fixed	**zero**	**floating**	**fixed**	**zero**	**floating**	**fixed**	**zero**	**floating**	**fixed**	**zero**	**floating**	
Step 1 and 2 (A- or higher)	0-1	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	6.0	6.0	6.0	3.2
	1-3	0.8	1.6	0.4	1.2	2.0	0.8	1.6	2.4	0.8	8.0	8.4	6.0	3.6
	3-5	1.2	2.0	0.4	2.0	2.8	0.8	2.4	3.6	0.8	10.4	10.8	6.0	4.0
	5-7	1.6	2.4	0.8	2.8	3.6	1.2	3.6	4.8	1.6	11.6	12.4	8.0	7.2
	7-10	2.4	3.2	1.2	3.6	5.2	2.0	4.8	6.4	2.4	13.2	14.4	10.4	10.4
	>10	4.0	5.6	1.6	6.4	8.4	2.8	7.2	10.4	3.6	16.0	20.4	11.6	16.0
Step 3 (BBB+ to BBB-)	0-1	4.8	4.8	4.8	5.6	5.6	5.6	6.4	6.4	6.4	10.4	10.4	10.4	4.8
	1-3	5.6	6.4	4.8	7.6	10.8	5.6	9.6	12.0	6.4	18.0	20.0	10.4	7.2
	3-5	7.2	8.0	4.8	10.8	14.8	5.6	13.2	17.6	6.4	22.4	26.0	10.4	10.4
	5-7	8.0	9.2	5.6	11.2	16.0	7.6	14.8	20.8	9.6	24.4	28.0	18.0	12.0
	7-10	9.2	10.4	7.2	12.8	19.6	10.8	15.2	22.4	13.2	24.8	29.6	22.4	14.4
	>10	10.4	12.8	8.0	15.2	23.6	11.2	15.6	24.0	14.8	25.2	30.4	24.4	24.0

Source: ECB, HSBC (*Assets that are theoretically valued will be subject to an additional 4% haircut; additional valuation markdowns for own-use covered bonds of 6.4% for Credit Quality Step 1&2 and of 9.6% for Credit Quality Step 3-5).

* These haircuts include the temporary 20% reduction in light of the Covid-19 crisis.

Classification of covered bonds within the Eurosystem operations

The ECB considers covered bonds to be a liquid asset class. Hence, covered bonds benefit from preferential liquidity class classification and favourable haircut valuations for repo transactions with the ECB when compared with, for example, ABS. Moreover, unlike senior bank debt, the ECB will accept self-issued "covered bank bonds" as collateral (see below for more information on this). Thus, like certain forms of ABS, covered bonds allow issuers to make assets held on their balance sheets eligible for the ECB's liquidity operations. This is very much in line with previous ECB statements which note that "covered bonds possess a number of attractive features from the perspective of financial stability".

The Eurosystem does currently not provide an official definition of what is classified as "covered bond". In general, the Eurosystem accepts both UCITS and non-UCITS compliant covered bonds as collateral as long as they otherwise fulfil the general eligibility criteria. Generally, debt instruments are classified as "covered bank bonds" if they are issued in accordance with the criteria set out in Article 52(4) of the UCITS Directive. Those bonds are grouped either into liquidity category II in case of Jumbo covered bonds, i.e. bonds with a minimum issue size of EUR 1 bn and at least three market makers, or into liquidity category III in case of traditional non-Jumbo covered bonds. Over the last few years, the market has moved away from the "Jumbo" definition and we would not be surprised if the ECB were to also update its internal criteria at one stage.

Covered bonds and "close link" exemption

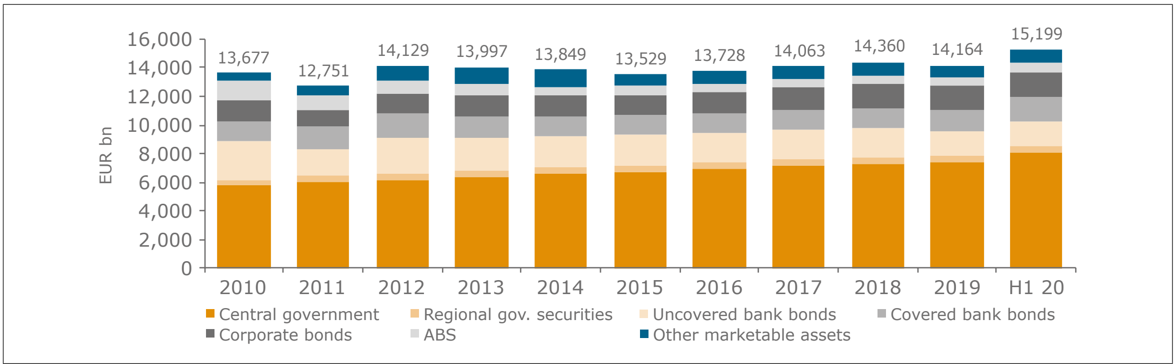
"Covered bank bonds" also benefit from certain preferential treatments compared with other bank debt when it comes to self-issued bonds. The ECB states that "irrespective of the fact that a marketable or non-marketable asset fulfils all eligibility criteria, a counterparty may not submit as collateral any asset issued or guaranteed by itself or by any other entity with which it has close links"[6]. This means that banks cannot, for example, use their own senior unsecured debt directly as collateral with the ECB.

The main exemptions from the "close links" rule remain "covered bank bonds". Self-issued covered bonds can be used by counterparties as collateral, i.e. an issuer can use its own covered bonds and there are no close link prohibitions. Since 1 February 2020, such covered bonds must have an issue rating.

Use of covered bonds as collateral in Eurosystem operations

The overall volume of marketable assets which are eligible for repo operations has almost doubled from EUR 7.6 trn in 2004 to EUR 15.2 trn at end-June 2020. At the end of June 2020, central government debt accounted for the largest share (53%), followed by corporate bonds (12%), uncovered bank bonds (11%), covered bank bonds (11%), and ABS (4%). Other bonds and regional government securities make up 9%.[7]

> Figure 4: Eligible collateral by asset type



Source: ECB, HSBC

The actual breakdown by type of the collateral used for repo transaction differs significantly from the market composition of the available eligible collateral as relative value considerations play an important role in the banks' decisions as to which collateral to post.

During the financial crisis there was a general trend to lower the overall quality and/or liquidity of the collateral used by the banks for repo operations. The share of central government debt fell sharply from 31% in 2004 to just 10% in 2008. However, this trend has reversed over the last decade and the government share was 16% at the end of H1 2020.

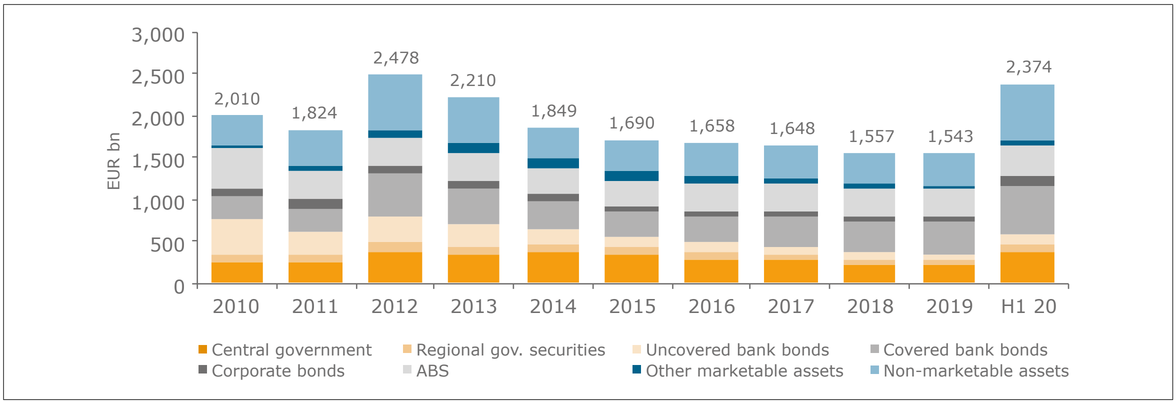
6 "Close links" means the counterparty is linked to an issuer/debtor/guarantor of eligible assets by one of the following forms: (i) the counterparty owns directly, or indirectly, through one or more other undertakings, 20 % or more of the capital of the issuer/debtor/guarantor; or (ii) the issuer/debtor/guarantor owns directly, or indirectly through one or more other undertakings, 20 % or more of the capital of the counterparty; or (iii) a third party owns more than 20 % of the capital of the counterparty and more than 20 % of the capital of the issuer/debtor/guarantor, either directly or indirectly, through one or more undertakings [ECB, "The Implementation on Monetary Policy in the Euro Area", February 2011]

7 Although included within the list of eligible collateral, the volume of potentially eligible non-marketable assets is difficult to estimate since the eligibility of credit claims (the largest share of non-marketable assets) are not assessed until they are registered with the Eurosystem.

The use of covered bonds in the Eurosystem repo operations dropped from 26% in 2004 to 11% in 2008. Since then it increased again and stood at 24% at the end of H1 2020. The share of uncovered bank bonds has continuously dropped from 32% in 2007 to just 6% at the end of H1 2020. ABS grew from 6% in 2004 to 28% in 2008. Over the last few years, the share was in the range of 16% to 23%.

Figure 5 also shows impact of the large rises in the main and long-term refinancing operations of the Eurosystem banks in 2008/09, 2012 and in June 2020 when banks borrowed a record volume of 1.3 trn in the fourth tranche of the TLTRO-III programme. At the end of H1 20, the volume had increased to almost 2.4 trn.

> Figure 5: Actual use of collateral by asset type



Source: ECB, HSBC

Conclusion on covered bond treatment

The ECB, to a greater extent than any of its central bank peers, has both outlined and demonstrated its support in the past for the covered bond market. This was most obviously the case with its three covered bond purchase programmes since 2009. Perhaps even more important is the ECB's positive stance towards covered bonds, which the institution maintains for several reasons.

Firstly, the ECB has focussed on the importance of covered bonds as a means for banks to access long-term funding: "Issuing covered bonds enhances a bank's ability to match the duration of its liabilities to that of its mortgage loan portfolio, enabling a better management of its exposure to interest rate risk. Other secured funding products, such as repos, are unlikely to have the same asset-liability matching attributes offered by covered bonds. These factors are all the more pertinent today given the increasing role of short-term refinancing in banks' balance sheets. In certain instances, rolling over short-term funding might be less expensive or better in terms of reputation, but this could pose challenges to the management of assets and liabilities at some point. In addition, to improving banks' structural asset-liability mismatch, covered bonds offer a wider geographical diversification, as issuers tap into a larger European market."[8] Moreover, a further key advantage comes from the absence of effective risk transfer and the desirable incentives this creates for the originating banks. As former ECB president Trichet noted: "Importantly, covered bonds do not involve the transfer of the credit risk implied by underlying assets from the issuer to the investor. The credit risk stays with the originator, preserving the incentives for prudent credit risk evaluation and monitoring."[9] Such positive attitude is reflected in the ECB's current favourable treatment of covered bonds within its repo operations as they are allocated in a very favourable liquidity category (Jumbo covered bonds rank alongside the debt of the ESM, EIB and the explicitly guaranteed German agency KfW).

8 European Central Bank, "Covered Bonds in the EU Financial System", December 2008.

9 Keynote address by Jean-Claude Trichet, Munich, 13 July 2009.

III. THE UK: ELIGIBILITY CRITERIA FOR BANK OF ENGLAND OPERATIONS

Latest changes to the framework

In October 2014, the Bank of England introduced the concept of collateral pooling to simplify the management of the collateral it received by the banks for its monetary operations. In the past, liquidity was provided against collateral by way of repurchase transactions. The new approach allows participants to pool their collateral across certain facilities (e.g. Short-Term Open Market Operations (OMOs), Operational Standing Facilities (OSFs), Indexed Long Term Repo operations (ILTRs), Discount Window Facility (DWF) and Intra-Day Liquidity (IDL) for RTGS). The Bank of England expects the pooling model to simplify the process for managing the collateral, enhance operational efficiency and reduce operational risks.

Before the introduction of the Single Collateral Pool (SCP) model, the Bank of England's SMF and intraday liquidity operations were repo transactions whereby individual securities were held as collateral against the central bank's exposures to that participant. The SCP model aggregates a participant's collateral position thereby significantly reducing the volume and frequency of transactions needed to provide collateral to the Bank of England.

The Bank of England has established three active collateral pools: the Main Collateral Pool, the DWF pool, and the Term Funding Scheme within the APF pool. In addition, there is a 'Pre-positioned pool for loan collateral' for loans meeting the collateral eligibility requirements but have not yet been used to cover any transactions.

Covered bonds under the Sterling monetary framework

The Bank of England (BoE) operates a rather stricter regime than the ECB in terms of eligible collateral within the Sterling Monetary Framework. The BoE defines three collateral sets, which are eligible to varying degree for its monetary operations: (1) level A collateral set, (2) level B collateral set, (3) level C collateral securities as well as level C *loan* collateral.

Within the Sterling monetary framework operations, covered bonds are only included within the Level B and Level C collateral securities sets, both of which are eligible for the following facilities: (1) Indexed Long-Term Repo OMOs, (2) Discount Window Facility, (3) Contingent Term Repo Facility as well as (4) the Funding for Lending Scheme.

The eligibility criteria for covered bond inclusion can be found below:

> FIGURE 6: BANK OF ENGLAND'S COVERED BOND ELIGIBILITY CRITERIA

	Level B	Level C Collateral Securities
Eligible currencies	GBP, EUR, USD, AUD, CAD, CHF, and SEK	
Geography	UK, French and German regulated Covered Bonds	-
Rating Requirements	Broadly equivalent to AAA	Broadly equivalent to A3/A- or higher
Minimum Size	At least £1bn or €1bn (depending on issue currency)	n/a
Own Name Covered Bonds	No	Yes
Underlying assets	UK/EEA prime residential mortgages, social housing loans or public sector debt	UK/US/EEA public sector debt, social housing loans, SME loans, commercial real estate loans, UK/EEA residential mortgages

Source: Bank of England, HSBC

Rating references are only used to indicate the broad standards of credit quality that are expected by the Bank of England and are no longer prerequisites for eligibility. The BoE rather forms its own independent view of the risk in the collateral taken and only accepts collateral that it can value and where the risk can be effectively managed.

For the Level B collateral set, only a subset of the covered bond universe is eligible. The criteria are based on a combination of both credit quality (hence underlined by the AAA rating-equivalent requirement) and liquidity.

For example, covered bonds from Nordic issuers, one of the core covered bond markets with an acknowledged safe haven status, are not included in the Level B Collateral Set. In the past, Spanish covered bonds that fulfilled the rating requirement were included but have been removed from the list of eligible assets. Meanwhile, under the current guidelines, even for some of the UK banks, their Euro covered bonds would mainly be eligible, given that many Sterling covered bonds fall below the minimum issue size threshold of GBP 1bn.

Covered bonds do not qualify for the Bank of England's Level A collateral set which is restricted to Gilts (including gilt strips), Sterling Treasury bills, Bank of England securities, HM Government non-sterling marketable debt and Sterling, euro, US dollar and Canadian dollar-denominated securities (including associated strips) issued by the governments and central banks of Canada, France, Germany, the Netherlands and the US.

In 2011, bonds issued in domestic currency or in sterling, euro or US dollars from Australia, Austria, Belgium, Denmark, Finland, Italy, Japan, Luxembourg, New Zealand, Norway, Portugal, Slovenia, Spain, Sweden, and Switzerland, as well as supranational debt, were moved from the "narrow" (now called Level A) to the "wider" (now called Level B) collateral set and are therefore not eligible for short term repo operations. Thus, even some AAA countries such as Norway or Denmark are no longer eligible for short-term repos under the Level A collateral definition. These amendments were the result of a previous internal review by the BoE, reflecting a stronger focus on liquidity and credit risk.

> Figure 7: Haircuts for various covered bond types

	float.	<1 yr	1-3 yrs	3-5 yrs	5-10 yrs	10-20 yrs	20-30 yrs	>30 yrs
Covered bonds (backed by UK or EEA public sector debt, social housing loans or residential mortgages)	12	12	14	15	17	19	22	24
UK, EEA or US covered bonds (backed by SME loans or commercial mortgages)	25	25	27	28	30	32	35	37
UK, EEA or US covered bonds (backed by ECA guaranteed loans)	3	3	5	6	8	10	13	15

Source: HSBC (as of 29 June 2020; an additional haircut of 5% will applied for own-use covered bonds)

As mentioned above, the Bank of England conducts a number of different monetary policy and liquidity insurance operations. Figure 8 shows the eligibility of different collateral sets for the various operations and facilities:

> Figure 8: Eligibility of different collateral sets for the various operations and facilities

Sterling Monetary Framework operations & lending facilities	Level A	Level B	Level C
Intraday Liquidity	Yes	No	No
Operational Standing Facilities	Yes	No	No
Indexed Long-term Repo Operations	Yes	Yes	Yes
Discount-Window Facility	Yes	Yes	Yes
Contingent Term Repo Facility	Yes	Yes	Yes
Liquidity Facility in Euros (LiFE)	Yes	Yes	Yes
US Dollar Repo	Yes	Yes	Yes
Funding For Lending Scheme	Yes	Yes	Yes
Term Funding Scheme	Yes	Yes	Yes
TFSME Lending Facility	Yes	Yes	Yes

Source: Bank of England, HSBC

Operational standing facilities

The Operational Standing Lending Facility provides a ceiling for the overnight interest rates through its overnight lending facility (against the Level A collateral set), which is usually set at 25bp above the Bank of England rate. The Operational Standing Deposit Facility is an unsecured overnight deposit with the central bank, which is currently set 10 bps below the Bank of England rate. This is designed to limit volatility in overnight interest rates by providing an arbitrage mechanism to prevent money market rates moving far from the bank rate and allowing participating banks to manage unexpected frictional payment shocks.

Indexed long-term repo operations

Indexed long-term repo operations are provided by the Bank of England to provide indexed liquidity insurance without distorting banks' incentives for prudent liquidity management and to minimise the risk being taken onto the BoE's balance sheet. These operations are indexed to the bank rate, allowing counterparties to use the facility without having to take a view on the future path of the Bank rate (and also reducing the BoE's exposure to market risk). In these operations banks can borrow against three collateral sets: Levels A, B and C. Levels B and C include covered bonds meeting the aforementioned criteria. Level C securities must be delivered to the Bank in advance of the operation, and all loan collateral must be pre-positioned.

The BoE typically offers funds in long-term repo operations once a month. Since 2014 the term of all ILTR lending has been extended to six months.

The BoE does not provide a simple schedule of long-term operations, as is the case for the ECB. Instead it operates a unique auction design. Participants submit bids for a nominal amount of liquidity and a spread in basis points to the bank rate. Banks can submit separate bids against Level A collateral or against Level B and C collateral (where covered bonds are eligible). Multiple bids can be placed against any of the three collateral sets[10].

The auction then prices using a "uniform price" format, meaning all successful bidders (those bidding for liquidity at a higher price than the clearing spread) ultimately pay only the clearing spread.[11] The BoE specifies the clearing spreads for all the three collateral sets. Bids are ranked and accepted in descending order of the bid spread until the BoE's supply preferences have been met. Thus, when pledging covered bonds in the BoE's long-term indexed repo operations, the ultimate cost to a bank will depend on the spread set for the Levels B and collateral sets in the auction. Crucially, the auction is flexible as both the proportion of the total amount allocated to each collateral set as well as the total quantity of funds are based on the pattern of bids received. This determines the amount of liquidity, against which covered bonds can potentially be pledged. So, in this system the amount of liquidity on offer against the Level B and C collateral sets depends not only on demand for long-term repos on these assets but also on those in the Level A collateral set.

Discount window facility

The discount window is a bilateral facility used for emergency lending to an institution; providing liquidity insurance. It allows participants to borrow Gilts (or in certain cases even cash) against a wider range of potentially less liquid eligible collateral. It acts as a "liquidity upgrade of collateral", hence, the wider range of eligible collateral. Fees are paid when the Gilts are returned to the BoE in return for the original assets. Drawings have a 30-day maturity and can be rolled for longer temporary liquidity needs.

Collateral, which can be pledged, encompasses all the collateral sets Level A, B and C. The fees charged for the discount window depend upon the type of collateral used and the proportion of eligible liabilities, which the lending would represent.

10 There is no restriction on the number of bids, the aggregate value of bids or the total value of bids received from a single participant.

11 The rationale here is to avoid participants basing their bids on assumptions about others' behaviour.

For lending provided in return for Gilts[12] the fees (in basis points) for the different categories of collateral are set out below:

> Figure 9: Overview of the fees for the different categories of collateral

Fees (basis points)			
Collateral % of Eligible Liabilities	**Level A**	**Level B**	**Level C**
0-5%	25	50	75
5-15%	Marginal cost rises linearly with quantity borrowed		
>15%	Prices agreed bilaterally with the Bank of England		

Source: Bank of England, HSBC

Contingent term repo facility (CTRF)

The CTRF is a contingency liquidity facility that the BoE can activate in response to actual or prospective exceptional market-wide stress to undertake operations against the full range of eligible collateral (Levels A, B, C). This includes own-name covered bonds. Collateral is expected to be pre-positioned prior to an operation. The BoE activated the CTRF on 26 March 2020 in the light of the Covid-19 pandemic. The size of the operation is unlimited at a fixed rate of Bank Rate plus 15bps. The final operation took place on 26 June 2020.

> Figure 10: Summary of the BoE's monetary operations

	Operational Standing Facilities	**Indexed Long-term Repo**	**Discount Window Facility (DWF)**
What is the primary purpose of the operation?	Monetary policy implementation; Bilateral liquidity insurance to deal with frictional payment shocks	Liquidity insurance	Bilateral liquidity insurance
What is being borrowed?	Deposit facility: n/a Lending facility: sterling cash	Sterling cash	Gilts (in certain circumstances also cash)
Eligible Collateral	Deposit facility: n/a Lending facility: Level A	Level A, B and C	Level A, B and C
Fee	Deposit facility: 25 bp above bank rate Lending facility: 10 bp below bank rate	Auction determined uniform spread indexed to Bank Rate	Fee dependant on size of drawing and collateral delivered
Maturity	Overnight	6 months	30 days
Frequency	Available daily	Typically monthly	Available daily
Minimum bid/ offer amount	n/a	£5mln	n/a
Minimum bid/ offer increment	n/a	£1mln	n/a
Settlement date of the operation	T+0	T+2	T+0

Source: Bank of England, HSBC (as of August 2020)

12 In the event that cash is lent instead, then the fee is the indexed bank rate in addition to the fees shown in the Figure 9; though such fees can vary at the bank's discretion.

Additional disclosure requirements for residential mortgage covered bonds

The Bank of England requires additional disclosure and transparency for RMBS and covered bonds backed by residential mortgages. The BoE requirements include anonymised loan level information for securities from these two asset classes. This must be provided for investors, potential investors and "certain other market professionals acting on their behalf." The information must be provided on at least a quarterly basis and within one month of an interest payment date. Since December 2012, any covered bonds backed by mortgages which do not fulfil the criteria became ineligible for use in any of the Bank of England's monetary policy operations.

Loan-level reporting also includes "the requirement for credit bureau score data" to be made available. This needs to be provided within a three-month period of the transaction's origination and must be updated on a quarterly basis to enhance comparability between the various providers.

IV. THE US: ELIGIBILITY CRITERIA FOR FEDERAL RESERVE OPERATIONS

The monetary policy operations of the Federal Reserve System work rather differently to those at the ECB or the Bank of England. The Federal Reserve Bank of New York implements monetary policy on behalf of the Federal Reserve System, as mandated by the Federal Open Market Committee (FOMC). Monetary policy is implemented through sales and purchases on the System Open Market Account (SOMA) at the Federal Reserve Bank of New York. This account is used both to maintain the overnight target rate for the federal funds rate (i.e. the US policy rate), as well as to undertake large scale asset purchase programmes decided upon by the FOMC. In particular, the three rounds of asset purchases (quantitative easing), the first consisting of Treasury securities, GSE debt and GSE-guaranteed MBS, the second solely of Treasuries and the third of agency MBSs, as well as the reinvestment of the coupons and principal payments received from the first round of QE, have all gone through this account. Currently, covered bonds are not eligible for any SOMA operations, which are restricted to US Treasury Bills, Notes and Bonds (including TIPS), Federal Agency securities[13] and MBS guaranteed by Fannie Mae, Freddie Mac and Ginnie Mae; all of which must be denominated in USD. None of the additional operations put in place during the first stage of the financial crisis are currently still in place, meaning the only significant other monetary operation is the discount window.

Covered bonds and the discount window

Following the redemption of the last US covered bond in November 2016, only **AAA-rated German Jumbo Pfandbriefe** are eligible for the discount window. For the AAA requirement the lowest rating of S&P, Moody's and Fitch is relevant.

"In general, the Federal Reserve seeks to value securities collateral at a fair market value estimate. Margins are applied to the Federal Reserve's fair market value estimates and are designed to account for the volatility of the value of the pledged security over an estimated liquidation period. Securities are valued using prices supplied by external vendors. Securities for which a price is unavailable from the Federal Reserve's external vendors will receive zero collateral value1."[14]

The haircuts applied to the various assets eligible for use in the discount window are outlined below. Notably the foreign currencies eligible for the discount window are AUD, CAD, CHF, DKK, EUR, GBP, JPY and SEK.

The haircuts applied to covered bonds in the discount window operations are not very high and only marginally higher than those for Treasuries. For example, for tenors of 5-10 years, USD-denominated Pfandbriefe are subject to a haircut of only 4%, the same as stripped Treasury notes, supranational paper or GSE bonds. Nonetheless, the eligibility criteria for foreign-issued covered bonds are very strict, including solely German Pfandbriefe. All other covered bonds effectively appear to be treated in the same manner as unsecured bank

13 Fannie Mae, Freddie Mac and Federal Home Loan Bank.

14 Federal Reserve Collateral Guidelines as 26 March 2018.

debt, i.e. they are excluded from the discount window. Even other well-developed legislation-based covered bond types, such as Obligations Foncières or any of the various Nordic covered bonds have not been included.

> Figure 11: Overview of the margins for securities

		Margins for securities (by Maturity in yrs)				
Asset Class	**Asset Type**	**0-1**	**>1-3**	**>3-5**	**>5-10**	**>10**
US Treasuries	Bills/Notes/Bonds/Floating Rate Notes/Inflation Indexed	1.0	1.0	2.0	3.0	5.0
	STRIPs	4.0				8.0
GSEs	Bills/Notes/Bonds	2.0	2.0	3.0	4.0	6.0
	Zero Coupon					
Foreign Government Agencies	AAA-BBB rated USD denominated	2.0	2.0	3.0	4.0	6.0
	AAA rated foreign denominated	6.0	6.0	7.0	7.0	9.0
Foreign Government, Foreign Government Guaranteed and Brady Bonds	AAA-A rated USD denominated	2.0	2.0	3.0	4.0	6.0
	BBB rated USD denominated	3.0	3.0	4.0	5.0	7.0
	AAA-BBB foreign denominated	6.0	6.0	7.0	7.0	9.0
Supranationals	Bills/Notes/Bonds USD denominated	2.0	2.0	3.0	4.0	6.0
	AAA rated foreign denominated	6.0	6.0	7.0	8.0	10.0
	Zero Coupon					
Corporate Bonds (Non-Financial)	AAA-A rated USD denominated	3.0	3.0	4.0	5.0	7.0
	BBB rated USD denominated	4.0	4.0	5.0	7.0	9.0
	AAA rated foreign denominated	8.0	8.0	9.0	10.0	14.0
German Jumbo Pfandbriefe	**AAA rated USD denominated**	**2.0**	**2.0**	**3.0**	**4.0**	**6.0**
	AAA rated foreign denominated	**6.0**	**6.0**	**7.0**	**7.0**	**10.0**
Asset Backed Securities	AAA-A rated	2.0	2.0	4.0	6.0	11.0
	BBB rated	3.0	6.0	7.0	8.0	12.0
	CDOs- AAA rated	13.0	13.0	15.0	23.0	36.0
	CLO- AAA rated	9.0	9.0	13.0	27.0	30.0
Agency Backed Mortgages	Pass-throughs	2.0	2.0	3.0	4.0	6.0
	CMOs					
	CMBs					

Source: Fed (applicable as of 7 January 2020), HSBC

There is also a separate schedule for the percentage margin applied to loans, a number of categories of which are also eligible for the discount window facility. A further stipulation from the Fed is that obligations of the pledging depository institution (or of an affiliate) are not eligible collateral, ruling out own-name covered bonds.

V. SWITZERLAND: ELIGIBILITY CRITERIA FOR SWISS NATIONAL BANK (SNB) OPERATIONS

SNB monetary policy operations

Under its monetary policy framework, the Swiss National Bank (SNB) sets normally a 100 bps target range for the 3-month Swiss Franc LIBOR rate, with SNB targeting the middle of this range. Repos are its preferred open market operation used to achieve this target. These are conducted in parts by auctions, which are typically held every day, either in the form of a volume tender (fixed rate tender, which is the norm) or by variable rate tender. The SNB can also conduct bilateral repo operations to affect money market operations during the course of the day. All these repo transactions must be 100% collateralised. The terms are set on a daily basis and the maturity of the operations may vary from one day to twelve months. Hence, the SNB does not have distinct long-term repo operations in the same manner as the ECB or the BoE. Furthermore, the SNB can issue its own debt certificates (SNB Bills) as a means of absorbing liquidity through its money market operations when targeting the policy rate (or range). Such debt certificates can also be posted back to the SNB in the context of its repo operations (but cannot be used by banks to satisfy their minimum reserve requirements).

Under the SNB's typical volume tender, each counterparty offers for the amount of liquidity it is willing to provide for a given repo rate. If the total volume of offers exceeds the SNB's predetermined allotment volume, the SNB reduces the amounts offered proportionally. Each one of the counterparties receives the interest rate they bid. SNB Bill auctions are, as a rule, conducted in the form of a variable rate tender. Counterparties submit their offers comprising the amount of liquidity they are willing to provide and price at which they would do so. Counterparties can submit multiple bids, including at different interest rates. The SNB obtains liquidity from the participants that have made offers at or below the highest interest rate accepted by the SNB, paying the participants the interest rate stated in their offers.

In addition, the SNB provides standing facilities (a liquidity shortage facility and an intraday facility). For such facilities the SNB does not actively intervene in the market but rather "merely specifies the conditions at which counterparties can obtain liquidity[15]." Repo transactions within the context of standing facilities must cover at least 110% of the funds obtained. The remaining monetary policy operations used by the SNB are an intraday facility for banks, foreign exchange swaps with various central banks, as well as foreign exchange purchases (a means of intervening into foreign exchange markets affecting CHF). The SNB can also create, purchase or sell derivatives on receivables, securities, precious metals and currency pairs.

Covered bonds and other collateral eligible for SNB repo operations

For monetary policy operations the SNB has a standard collateral set which does not distinguish between collateral eligible for different operations. This is in line with the ECB but in contrast to the BoE policy. The SNB accepts a slightly wider set of collateral for its operations. In this sense, the SNB operates much more like the ECB than the Fed or BoE, with the latter restricting eligible assets of short-term monetary policy operations to only the highest-quality liquid government securities, with the exclusion of covered bonds.

Following the adoption of the Swiss Liquidity Ordinance which translates the LCR framework into Swiss law, the SNB has also redefined its collateral policy aligning it to the new liquidity provisions from 2015 onwards. The changes should ensure that all collateral eligible for SNB repos also fulfils the criteria for high-quality liquid assets (HQLA).

Only collateral included in the list of eligible collateral for SNB repos may be pledged in the repo transactions. In order to be eligible, the collateral assets must fulfil the following criteria:

> be issued by central banks, public sector entities, international or supranational institutions and private sector entities

> securities issued by financial institutions are generally not eligible. However, covered bonds issued by financial institutions are eligible, provided the issuer is not a domestic financial institution or its foreign subsidiary. Moreover, securities issued by Pfandbriefbank schweizerischer Hypothekarinstitute AG and Pfandbriefzentrale der schweizerischen Kantonalbanken AG are also eligible.

> the securities have to be denominated in CHF, EUR, USD, GBP, DKK, SEK or NOK.

> the issuer must be domiciled in Switzerland or in the European Economic Area (EEA), if the security is denominated in a foreign currency. Securities issued by international or supranational organisations may be admitted as eligible collateral even if the issuer is domiciled in a third country.

> have a fixed principal amount with an unconditional redemption,

15 Guidelines of Swiss National Bank (SNB) on Monetary Policy Instruments.

> have a fixed rate, floating rate or zero coupon,

> have a minimum volume of CHF 100 mln for securities denominated in Swiss Francs or CHF 1 bn equivalent for securities denominated in foreign currencies,

> be traded on a recognised exchange or a representative market in Switzerland or EEA member state with price data published on a regular basis; and

> fulfil the country and issuer rating requirements (second-highest rating of the three rating agencies S&P, Moody's and Fitch is at least AA-/Aa3. If only one credit rating is available, this shall be used).

> On 13 June 2019 the SNB announced that covered bonds with extendable maturities (i.e. soft-bullets) are eligible assets up to the original maturity date.

As such, covered bonds are eligible, as long as they are not issued by a domestic Swiss bank (or a subsidiary abroad) with the exception of the Swiss Pfandbrief institutions. The criteria for the various classes of eligible assets are further split between foreign and Swiss Franc denominated criteria:

> Figure 12: Eligibility criteria for Swiss Franc and foreign currency securities

	Currency of Issue	Min. Rating of Creditor's Country of Domicile	Min. Rating of Security	Minimum issue size	Additional Criteria
Swiss Franc Securities	CHF	AA-/Aa3*	AA-/Aa3**	100 CHF m	Securities of foreign issuers must be listed on SIX Swiss Exchange
Foreign Currency Securities	EUR, USD, GBP, DKK, SEK, NOK	AA-/Aa3* (and must be domiciled in Switzerland or an EEA member state)	AA-/Aa3**	1.0 bn EUR; 1.0 bn USD; 750 m GBP; 7.5 bn DKK; 10.0 bn SEK; 10.0 bn NOK	–

* Securities of supranational organisations may be eligible irrespective of rating of country of domicile.

** Based on the second-highest rating; if only one credit rating is available, this shall be used. For securities issued by public sector entities and the Swiss Pfandbrief institutions which do not have a securities rating, the issuer rating may be used instead. Swiss public authorities, Swiss Pfandbrief institutions, the central issuing office of Swiss municipalities and Swiss issuers with explicit guarantee from Swiss Confederation are excluded from this requirement.

Source: SNB, HSBC

All securities contained in the list of collateral eligible for SNB repos form part of the SNB GC Basket and fulfil the criteria for high-quality liquid assets (HQLA) as defined in the Liquidity Ordinance. Based on their characteristics, the securities in this collective basket are assigned to additional baskets. The L1 Basket contains Swiss franc and foreign currency securities issued by, as a rule, central banks, public sector entities and multilateral development banks. The L2A Basket contains all other securities from the SNB GC Basket. In addition, Swiss franc securities are pooled in an L1 CHF Basket and an L2A CHF Basket. As is the case with all central banks, the SNB can decide on a case-by-case basis which securities are eligible for its repo operations. Its rules explicitly state that it "may reject the inclusion of securities or withdraw securities that were previously included in the list, without providing any justification."

Own-name covered bonds

The SNB publicly states that it does not accept counterparties' own securities or "those issued by persons or companies which, directly or indirectly, hold at least 20% of the capital or the voting rights in a counterparty or, conversely, in which the counterparty holds such rights". Nonetheless it explicitly states that "this 20% rule does not apply to participations in Swiss Pfandbrief institutions". Although it is not explicitly stated in official documents, SNB officials confirmed to us that own-name covered bonds cannot be included within the boundaries set by the definition of eligible collateral.

VI. NORWAY: ELIGIBILITY CRITERIA FOR NORGES BANK OPERATIONS

Norges Bank monetary policy operations

The policy rate of Norges Bank is the sight deposit rate: the rate of interest banks receives on their overnight deposits (up to a quota) at Norges Bank. In October 2011, quotas were introduced defining the size of deposits banks could hold with Norges Bank on sight deposit rate terms. Banks' reserves with Norges Bank in excess of the quota were remunerated at a rate equal to the sight deposit rate minus 100bp, given banks a strong incentive to holding surplus reserves at the low reserve rate. Unlike other central banks, the key policy rate is not a target for overnight interest rates realised in money markets. Instead, the sight deposit rate forms a floor for very short-term money rates, whilst the overnight lending rate charged to banks for overnight loans (for "D-Loans", see below) is the other though less important interest rate, which forms a ceiling for very short-term money rates. This is typically set 100bp above the key policy rate. Norges Bank uses F-deposits (fixed-rate deposits) to remove unwanted liquidity from the system.

In terms of providing liquidity, Norges Bank provides intraday and overnight loans ("D-Loans"), which must be 100% collateralised. The bank also provides longer term liquidity through "F-loans" (fixed-rate loans), repurchase agreements and currency swaps. F-loans are ordinary fixed-rate loans with a given maturity provided against acceptable collateral "in the form of approved securities." The interest payable on such loans is determined by a multi-price ('American') auction. Just as in the case of the SNB, Norges Bank determines the total amount to be allotted in such an operation. Bids for the loans are ranked in decreasing order and allotments are made until the total amount is distributed, with all counterparties paying their respective bid price. Such loans also must be 100% collateralised.

Norges Bank has primarily granted "F-loans" to financial institutions rather than longer-term repo operations, following previously unsuccessful attempts to encourage the use of repo facilities in the past. F-loans are provided for a number of different maturities, much like the longer-term ECB-refinancing operations. Longer maturity F-loans were provided during the credit crunch.

The collateral set eligible for short-term "D-loans" at Norges Bank is identical to that for the longer-term "F-loans" as Norges Bank only uses one collateral set for all its operations. Its collateral rules group different securities into various liquidity categories, much like the ECB (see below for further details).

Covered bonds and other collateral eligible for Norges Bank repo operations

In order to be eligible as collateral, securities must be listed on Norges Bank's website and have to fulfil the following eligibility criteria:

Type and Jurisdiction

> Bonds, notes and short-term paper issued from Norwegian and foreign issuers;

> Securities issued outside the EEA may be accepted provided that Norges Bank has legal confirmation that there are no problems associated with the realising of the collateral;

> Norwegian bond and money market funds (confined to investing in bonds, notes and short-term paper that are eligible under the current rules) are eligible as collateral provided that they are managed by a management company registered in Norway whose unit holdings are registered with the Norwegian Central Securities Depository (VPS) and that Norges Bank has access to price information from Oslo Børs Informasjon.

> Securities must be registered either in the VPS or at Euroclear Bank or Clearstream Banking.

Credit rating

- Securities issued by foreign issuers and bonds, notes and short-term paper issued by Norwegian private entities are subject to credit rating requirements.
- Covered bonds issued under Norwegian law are exempt from the rating requirement if they are backed by domestic mortgage loans. For securities issued by Norwegian entities a credit rating of the issuer is sufficient.
- Norges Bank accepts credit ratings from S&P, Fitch and Moody's whereby the second-best credit rating will apply if a security or issuer has more than one rating. The lowest acceptable credit rating for bonds with foreign issuers is A/A2, while the lowest acceptable credit rating for bonds issued by Norwegian issuers is BBB-/Baa3[16].

Listing

Securities issued by private entities are subject to listing requirements.

- Securities issued by private entities must be listed on a stock exchange or other market places approved by Norges Bank.
- The listing requirement does not apply to notes and short-term paper.

Requirements relating to minimum volume outstanding

Securities issued by private entities are subject to requirements relating to minimum volume outstanding. In light of the Covid-19 crisis, the following temporary measures apply:

- Securities in NOK must have a minimum outstanding volume of NOK 100 m, whilst securities in a foreign currency must have a minimum volume equivalent to EUR 50 m.
- For securities other than Norwegian government bonds, there is temporarily no upper bound.

Currency restrictions

- Securities shall be denominated in NOK, SEK, DKK, EUR, USD, GBP, JPY, AUD, NZD, CAD or CHF. For securities denominated in a currency other than NOK an additional haircut of 6% is applied.

Multilateral development banks, government-guaranteed and regional debt securities

Norges Bank may, subject to an assessment, exempt securities with irrevocable and unconditional government guarantees from the listing and minimum outstanding volume requirements.

ABS and other restrictions

- Asset Backed Securities (ABS) must have a AAA credit rating from S&P, Fitch or Moody's at the time of collateralisation and must be assessed by Norges Bank as what are termed "true sale" ABSs and must not be secured on commercial property loans.
- Only the most senior tranche will be accepted as collateral and the borrower cannot pledge more than 20% of the volume outstanding of any deal.
- Unsecured securities issued by banks and other financial institutions, or unsecured bonds issued by companies where banks or other financial institutions indirectly or directly own more than a third are not eligible. Securities that are directly or indirectly linked to credit derivatives are not eligible as collateral. Nor will instruments such as convertible bonds, inflation-linked bonds, inverse floating rate bonds, FRN Caps or subordinated loans be eligible.

16 The lowest acceptable credit rating for notes and short-term paper issued by foreign entities is A-1 from S&P or the equivalent rating from Fitch or Moody's, while the lowest acceptable credit rating for notes and short-term paper from Norwegian issuers is A-3 from S&P or the equivalent rating from Fitch or Moody's.

- > Exemption due to Covid-19 crisis: Securities in NOK guaranteed by local government authorities are exempt from the credit rating requirements.

Own-name covered bonds

A bank may pledge covered bonds and ABS as collateral even if the securities are issued by the bank itself or by an entity that is part of the same corporate group as the bank. Own-name covered bonds are subject to an additional haircut of 5%.

Haircuts

The haircuts applied to the market value of a security are set out by category below:

> FIGURE 13: NORGES BANK HAIRCUTS BY CATEGORY AND RESIDUAL MATURITY (% OF MARKET VALUE)

Liquidity Category	Liquidity Category I		Liquidity Category II		Liquidity Category III		Liquidity Category IV	
Eligible Collateral	> AAA rated Government Bonds > Money market and bond funds confined to investments in the above securities		> Government bonds rated AA+ to A > *Covered bonds rated AAA to AA-* > Norwegian local government paper > Foreign local government paper rated A or better > 0% RW paper > Government-guaranteed paper > AAA rated corporates		> *Covered bonds rated A+ to A* > Corporate bonds rated AA+ to A > Units in eligible money market and bond funds		> Norwegian *covered bonds* rated A- or lower and unrated > Norwegian corporate bonds rated A- to BBB-	
Maturity	Fixed	Floating	Fixed	Floating	Fixed	Floating	Fixed	Floating
0-1 year	1.0	1.0	3.0	3.0	4.0	4.0	8.0	8.0
1-3 years	3.0	1.0	5.0	4.0	6.0	5.0	11.0	10.0
3-7 years	5.0	1.0	7.0	5.0	10.0	7.0	17.0	14.0
7+ years	7.0	1.0	10.0	6.0	13.0	9.0	22.0	17.0

Source: HSBC, Norges Bank

Notes: Securities in foreign currencies are subject to a further 6% haircut, own-name covered bonds to a further 5% haircut. If Norges Bank does not have sufficient price information on securities, the value will be determined on the basis of the nominal value, less an additional haircut depending on the bond's rating.

Access to Norges Bank lending facilities by covered bond mortgage companies

In a statement published in May 2013, Norges Bank argues that "covered bond mortgage companies should not be given general access to the central bank lending facility" since "the granting of liquidity loans is expressly restricted to commercial banks and savings banks." It has to be noted however that "Norges Bank's ability to extend liquidity support to financial institutions in extraordinary cases is not limited by whether the institution has ordinary access to the lending facilities."

VII. AUSTRALIA: ELIGIBILITY CRITERIA FOR RESERVE BANK OF AUSTRALIA (RBA) OPERATIONS

The Reserve Bank of Australia (RBA) expresses its desired stance on monetary policy through an operating target for the cash rate, the money market rate on overnight interbank funds. The RBA targets this through its short-term open-market operations ("domestic market operations"). The same collateral set is also applicable to the longer-term operations provided.

When the RBA buys securities under repurchase agreement, it does so in two broad classes of securities: government-related securities and private securities. Since the mid-1990s, the RBA has gradually widened the range of highly-rated securities that it is prepared to accept in response to the decline in available government debt and taking into account the changing structure of financial markets.

Covered bonds and RBA eligible securities for reverse repos

In order to be considered as eligible by the RBA, all securities, including covered bonds, must fulfil the following criteria:

> **Currency**: The security is denominated in Australian dollars and traded in Austraclear. The RBA will not accept securities that trade as Euro-entitlements.

> **Rating**: The lowest credit rating assigned to a security or its issuer by Moody's, S&P and Fitch will be used to assess eligibility and eventual haircut. For covered bonds only, security ratings are considered as long as at least two ratings are available. Otherwise the minimum issuer ratings will be considered.

> **Structured bonds**: "Highly structured" securities are not eligible.

> **Own name bonds**: "Unless otherwise advised" securities issued by the bank itself or related entities are not eligible. A related party is deemed to be an institution that has a significant relationship to the credit quality of the security, including members of the same group and where one entity owns more than 15% of another. The list of eligible securities denotes the related parties for specific securities or programmes. This 'related party exemption' also applies to covered bonds and, as such, "own name covered bonds" are not eligible for RBA repo operations.

The current set of eligible securities and the respective minimum rating requirements are given below:

> FIGURE 14: ELIGIBLE SECURITIES AND MINIMUM RATING REQUIREMENTS

	Minimum Rating
General Collateral	
Australian Government Securities	no minimum rating required
Semi-governments Securities	no minimum rating required
Issues by Supranationals and Foreign Governments	AAA*
Securities with an Australian Government Guarantee	no minimum rating required
Securities with a Foreign Sovereign Government Guarantee	AAA*
Private Securities	
Securities (including Covered Bonds) issued by authorised deposit-taking institutions (ADIs)	
Residual maturity of 1Y or less	Any public rating
Residual maturity > 1Y	BBB-
Asset Backed Securities	A-1 or AAA
Other securities	A-1 or AAA

* Minimum rating requirement waived for securities issued and/or guaranteed by the New Zealand government

Source: RBA, HSBC, (as of May 2020)

These include covered bonds denominated in AUD which have to be issued in the Kangaroo market (i.e. onshore) to be eligible for Repo transactions with the RBA. The RBA is willing to accept "other AAA assets" which include covered bonds, as well as senior unsecured bank debt as long as it is rated AAA and denominated in AUD. The RBA accepts both legislative and structured covered bonds. As is the case with all central banks, the RBA retains the right to reject any particular security or securities from any issuer and specifically states that it will not accept "highly structured" securities. This does not apply to covered bonds, but to CDOs or similar structures.

Figure 15 below shows the margin ratios used by the RBA to discount the market value of securities purchased under reverse repos. They are applied according to the following formula:

purchase price = market value / (1 + margin / 100)

> FIGURE 15: MARGIN RATIOS OF SECURITIES PURCHASED UNDER REVERSE REPOS

	Minimum Rating	Margins			
		0-1 years	1-5 years	5-10 years	>10 years
Government-related Securities					
Australian Government Securities	n/a	1	2	2	2
Semi-Government Securities	n/a	1	2	2	2
Securities Issued by Supranationals & Foreign Governments	AAA	2	3	4	4
Securities with an Australian Government Guarantee	n/a	2	3	4	4
Securities with a Foreign Government Guarantee	AAA	2	3	4	4
Private Securities					
ADI-issued Securities including Australian Covered Bonds	AAA	6	7	8	10
	AA–	10	12	14	16
	A–	12	14	16	18
	BBB-	18	22	26	30
	Public credit rating	24	n/a	n/a	n/a
Asset-backed Securities					
> Standard	A-1 or AAA	10-15	10-15	10-15	10-15
> Other	A-1 or AAA	15-20	15-20	15-20	15-20
Other Private Securities	A-1 or AAA	6	7	8	10

Source: RBA, HSBC (as of May 2020)

An additional 3% haircut may apply to asset-backed securities if no market price is available.

VIII. NEW ZEALAND: ELIGIBILITY CRITERIA FOR RESERVE BANK OF NEW ZEALAND (RBNZ) OPERATIONS

RBNZ monetary policy operations

Since March 1999 the RBNZ has implemented monetary policy by setting the Official Cash Rate (OCR), which is reviewed eight times a year. The monetary operations of New Zealand are composed of (a) Liquidity Operations, (b) Standing Facilities and (c) Other Domestic Operations. The Open Market Operations (OMO) of the Reserve Bank of New Zealand (RBNZ), including *overnight repo transactions* and issuance of RBNZ bills (to remove unwanted liquidity) fall within the "Liquidity Operations", as do FX Swaps and Basis Swaps operations. The Standing facilities are made up of the Overnight Reverse Repo Facility and a Bond Lending Facility. Finally, "Other Domestic Operations" consist of the repurchase or swapping of New Zealand government securities.

The following securities are eligible for the RBNZ's overnight repo transactions within the Liquidity Operations and the Bond Lending Facilities (part of the Standing facilities):

> New Zealand Government Treasury bills;

> New Zealand Government bonds;

> New Zealand Government inflation-indexed bonds; and

> Other (non-New Zealand Government) Securities as approved by the RBNZ.

Covered bonds fall within this final definition, as long as they comply with the eligibility criteria. These are set out in the section below. Covered bonds are not eligible for other RBNZ monetary operations. The eligibility of securities for the 'Overnight Reverse Repo' under the RBNZ Standing Facilities is restricted solely to New Zealand Government bonds, Treasury bills and RBNZ bills. For the "Other Domestic Operations", the RBNZ from time to time offers to either repurchase and/or swap New Zealand Government securities. Purchases may be for the RBNZ's own account or on behalf of the Crown.

Covered bond eligibility for RBNZ operations

As explained above, covered bonds are eligible for the RBNZ's overnight repo transactions within the Liquidity Operations and the Bond Lending Facilities, as long as they fit the following criteria:

Rating

> Issues are rated AAA by at least two acceptable rating agencies. In case of more than two issue ratings, at least two agencies must rate the issue AAA, and no rating should be lower than AA+.

> The issuer has a credit rating from at least two acceptable rating agencies.

Cover pool

> The cover pool must be comprised of New Zealand originated first registered mortgages on New Zealand residential properties.

> The mortgage collateral is owned by a special purpose vehicle (SPV) that is bankruptcy remote from the originator.

> The loan-to-value ratio for each individual mortgage does not exceed 80%.

> Mortgages with loan to value ratios that exceed the 80% level will be removed from the cover pool and replaced with qualifying mortgages.

> Only loans that are performing have been included in the pool (non-performing loans are defined as those that are 90 days or more past due).

> "Asset monitors" independent from the trustee and the originator verify calculations relating to asset coverage tests and any other key ratios and provide these, and any other relevant reports, to the RBNZ on a regular basis.

Price sources

> Covered bond pricing is available on at least 80% of days via the NZFMA's NZ Credit Market Daily Pricing Service. Pricing is available at all month-ends.

Currency

> Issues are denominated in New Zealand dollars (NZD) only.

Settlement

> Covered bonds are lodged and settled in NZClear. Eligibility criteria for lodgement into NZClear include having a suitable registrar and paying agent.

Own-name bonds

> Covered bonds are repo-eligible on a two-name basis only, thus removing the possibility of issuers posting 'own-name' covered bonds to the RBNZ.

Of course, as is the case for all central banks, the RBNZ reserves the right to refuse an asset for any reason and is not required to disclose such reasons. In particular, "it should be noted that if the credit rating of the issue falls below the Reserve Bank's threshold, then the issue will cease to be eligible in the Reserve Banks' operations."

Thus, the RBNZ applies relatively strict criteria in setting eligibility for covered bonds, in particular, the requirement that the cover pool can only comprise New Zealand originated for registered mortgages on New Zealand residential properties currently restricts the use of the repo facility to covered bonds issued by domestic banks (or New Zealand subsidiaries of foreign banks using domestic loans). Nonetheless, if a foreign issuer were to have eligible loans in the pool (and fulfil all the other criteria), their covered bonds could also be eligible. Covered bonds are also subject to the strict requirement of being NZD-denominated, consistently with the rules for all other securities; even bonds issued or guaranteed by foreign governments must be NZD-denominated. Therefore, US Treasuries or Bunds in their domestic currencies would technically not be eligible for the RBNZ's operations.

The full haircuts matrix can be found below. It shows that NZD Covered bonds receive relatively benign haircuts, in line with two-name basis NZD-denominated RMBS, but significantly better than single-name RMBS. Ultimately, the eligibility criteria for repo are strict but eligible covered bonds receive a highly favourable treatment.

> Figure 16: Haircut matrix

Eligible Security	Minimum Rating	Haircut		
		0 ≤ 1 yr	1 – 5 yrs	≥ 5 yrs
NZ Government & RBNZ				
Treasury Bills	AA+	1%	2%	3%
Bonds				
Inflation-linked Bonds				
RBNZ Bills	n/a	1%	2%	n/a
Acceptable Kauri issues (NZD)				
Liquidity Category 1 Country*	AAA	3%	4%	5%
	AA- to AA+	6%	7%	8%
Liquidity Category 2 Country**	AAA	4%	5%	6%
	AA- to AA+	7%	8%	9%
Bank Securities (NZD)				
Bank bonds – NZ Registered Banks only	AAA	5%	6%	8%
	AA- to AA+	8%	9%	10%
	A- to A+	10%	12%	15%
	BBB- to BBB+	15%	17%	20%
NZ Registered Bank RCD's	A-1 and above	10%	n/a	n/a
	A-2	20%	n/a	n/a
Local Authorities (NZD)				
Bonds	AAA	3%	4%	5%
	AA- to AA+	6%	7%	8%
	A- to A+	10%	12%	15%
	BBB- to BBB+	15%	17%	20%
CP	A-1 and above	6%	n/a	n/a
	A-2	15%	n/a	n/a
State-Owned Enterprises (NZD)				
Bonds	AAA	5%	6%	8%
	AA- to AA+	8%	9%	10%
	A- to A+	10%	12%	15%
	BBB- to BBB+	15%	17%	20%
CP	A-1 and above	10%	n/a	n/a
	A-2	20%	n/a	n/a

Eligible Security	Minimum Rating	Haircut		
		0 ≤ 1 yr	1 – 5 yrs	≥ 5 yrs
Corporate Securities (NZD)				
Bonds	AAA	5%	6%	8%
	AA- to AA+	8%	9%	10%
	A- to A+	10%	12%	15%
	BBB- to BBB+	15%	17%	20%
CP	A-1 and above	10%	n/a	n/a
	A-2	20%	n/a	n/a
Securities issued/guaranteed by Foreign governments				
NZD Denominated	AA+	6%	7%	8%
	A-1+			

Source: RBNZ, HSBC

* Liquidity Category 1: Austria, Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Luxembourg, Netherlands, Norway, Singapore, Sweden, Switzerland, United Kingdom and United States;

** Liquidity Category 2: Czech Republic, Hong Kong, Ireland, Malta, Spain, South Korea.

> Figure 17: Haircut matrix

Eligible Security	Minimum Rating	Haircut	
		< 3 years	≥ 3 years
Asset Backed Securities (NZD)*			
Bonds	AAA	10%	15%
CP	A-1+	10%	n/a
RMBS (NZD; on a single name basis)*			
Bonds	AAA/A-1+	19%	19%
CP			
RMBS (NZD; on a two name basis)			
Bonds	AAA/A-1+	5%	8%
CP			
Covered Bonds (NZD)			
Bonds	AAA	5%	8%

Source: RBNZ, HSBC

* The RBNZ assumes that these are not traded in the secondary market and no market price is available;

** The Reserve Bank will not accept securities from an institution which is obliged to provide more than 50% of the liquidity provision.

IX. CANADA: ELIGIBILITY CRITERIA FOR BANK OF CANADA MARKET OPERATIONS

The Bank of Canada uses a number of permanent facilities to conduct market operations:

- **OR/ORR**: The Bank conducts Overnight Repo (OR) and Overnight Reverse Repo (ORR) transactions to implement its monetary policy framework in the Large Value Transfer System (LVTS) environment. ORs and ORRs are used to reinforce the target overnight rate at the mid-point of the operating band. **Overnight Standing Repo Facility**: The Bank makes this standing facility available to Primary Dealers on an overnight basis at the upper limit of the operating band (Bank Rate).
- **Term Repo for Balance Sheet Management Purposes**: The Bank may acquire assets temporarily in the secondary market to manage short-term changes in the Bank's balance sheet, which is typically due to seasonal fluctuations in the demand for bank notes.

- > **Securities-Lending Program**: The Bank supports the liquidity of Government of Canada securities by providing a secondary and temporary source of securities to the market through a tender process for a term of one business day.
- > **Standing Liquidity Facility**: On 19 March 2020, the Bank of Canada launched its 'Standing Term Liquidity' Facility. The Bank of Canada provides Large Value Transfer System (LVTS) advances, which are collateralised overnight loans to direct participants in the LVTS. The same assets eligible for the Bank's Standing Liquidity Facility (SLF) are also eligible to obtain intraday liquidity for participants in the LVTS. On 30 March 2020, the Bank of Canada launched its 'Standing Term Liquidity Facility´. This programme is an addition to the standing liquidity facility and functions very similarly to the latter. However, it is characterized by both a greater range of eligible collateral which includes own-use covered bonds.
- > **Bank of Canada Margin Call Practice for Domestic Market Operations**: For transactions outstanding against securities purchased or sold under a term purchase and resale agreement, the Bank values the securities daily, and compares that value to the contract valuation in order to ensure the Bank is adequately protected. The Bank may initiate a margin call, requesting the counterparty to deliver additional securities to cover any shortfall.

The Bank of Canada provides access to liquidity through its Standing Liquidity Facility (SLF), to institutions participating directly in the Large Value Transfer System (LVTS). Under the provisions of the Bank of Canada Act, the Bank's LVTS advances (the overdraft loans) are required to be made on a secured basis. The collateral used to secure these loans must be acceptable to the Bank of Canada, and an appropriate margin is applied. Notwithstanding the eligibility criteria listed below, the Bank of Canada retains the right of refusal for any as- set or programme.

In December 2012, the Bank of Canada added Canadian covered bonds as eligible assets to the list of collateral that can be pledged under its Standing Liquidity Facility. The covered bonds have to fulfil the following criteria and conditions, which apply equally to the Standing Term Liquidity Facility:

- > Only covered bonds from programmes that are registered with the Covered Bond Registrar (CMHC) and are compliant with the federal legislative framework for covered bonds are eligible, i.e. Canadian Registered Covered Bonds.
- > The Covered Bonds must be rated equivalently to a rating of AAA.
- > Eligibility is restricted to covered bonds denominated in Canadian Dollars. This requirement is not limited to covered bonds but is applicable to all asset classes with the exception of US Treasuries denominated in US dollars.
- > Covered bonds are typically subject to a 5% issuer concentration limit.
- > The combined amount of covered bonds, term ABS and ABBCP originated or sponsored by a single institution pledged by an LVTS participant cannot be more than 5% of the total collateral value of that participant.
- > No more than 20% of an institution's pledged collateral may be comprised of municipal government or private sector securities including covered bonds. Securities issued by other LVTS participants (also including covered bonds) are subject to a 10% limit.
- > Banks cannot submit their own covered bonds as collateral.
- > Soft-bullet covered bonds are eligible as collateral.

> FIGURE 18: HAIRCUTS FOR VARIOUS ASSET CLASSES AND MATURITY BRACKETS

Collateral type	up to 3 months	>3-12 months	>1-3 years	>3-5 years	>5-10 years	>10-35 years	>35 years
Securities issued by the Government of Canada	0.25%	0.5%	1.0%	1.5%	2.0%	3.0%	3.5%
Government of Canada – stripped coupons and residuals	0.25%	0.5%	1.0%	1.5%	2.0%	4.0%	11.5%
Securities guaranteed by the Government of Canada (excl. NHA mortgage-backed securities)	0.5%	1.0%	1.5%	2.0%	2.5%	4.0%	4.5%
NHA mortgage-backed securities	1.5%	2.0%	2.5%	3.0%	3.5%	5.0%	5.5%
Government of Canada guaranteed – stripped coupons and residuals	0.5%	1.0%	1.5%	2.5%	4.0%	5.5%	13.0%
Securities issued by a provincial government	1.0%	1.5%	2.0%	2.5%	3.0%	4.0%	6.0%
Provincial government – stripped coupons and residuals	1.0%	1.5%	2.0%	3.0%	4.5%	6.0%	17.0%
Securities guaranteed by a provincial government	1.0%	2.0%	2.5%	3.0%	3.5%	4.5%	6.5%
Provincial government guaranteed – stripped coupons and residuals	1.0%	2.0%	2.5%	3.5%	5.0%	6.5%	17.5%
Securities issued by a municipal government	1.25	2.5%	3.0%	3.5%	4.0%	5.0%	7.0%
Bankers' acceptances, promissory notes, commercial paper, including those of foreign	1.5%	3.0%	–	–	–	–	–
Term Asset-backed securities	3.75%	7.5%	8.0%	9.0%	12.0%	15.0%	17.0%
Asset-backed CP	3.75%	7.5%	–	–	–	–	–
Covered bonds	**2.0%**	**3.0%**	**3.5%**	**4.0%**	**6.5%**	**8.5%**	**9.0%**
Corporate and foreign-issuer bonds	2.0%	3.0%	3.5%	4.0%	6.5%	8.5%	9.0%
Securities issued by the US Treasury*	1.0%	1.0%	1.0%	1.5%	3.0%	5.0%	–

Source: Bank of Canada, HSBC

Notes: Non-mortgage loan portfolio: The Bank will provide a collateral-to-portfolio value of 60%; i.e. 60% of the reported value of the loan portfolio, implying a haircut of 40%.

* An additional 4% will be added to the margin requirements for securities issued by the US Treasury to account for foreign exchange risk.

X. DENMARK: ELIGIBILITY CRITERIA FOR DANMARKS NATIONALBANK

Eligible counterparties can pledge securities as collateral which comprises of securities issued or guaranteed by the Kingdom of Denmark, bonds issued by KommuneKredit as well as the Danish covered bonds (Moreover, bonds issued by Føroya Landstýri (the government of the Faroe Islands) also qualify. The securities must be registered with VP Securities and traded at NASDAQ OMX Copenhagen. The securities must be denominated in DKK or EUR, in the latter case an additional exchange-rate haircut of 3% is deducted. At the request of the account holders and subject to specific assessment, Danmarks Nationalbank may also include other assets in the collateral basis for credit facilities in DKK.

The collateral value of the securities is calculated on the basis of their official price on NASDAQ OMX Copenhagen on the preceding day, including accrued interest, less a securities-specific valuation haircut. If an asset has not been traded on the previous banking days, a theoretical price set by Danmarks Nationalbank is used for the calculation of its collateral value.

The haircut applied by Danmarks Nationalbank for eligible securities depends on the liquidity category and the remaining maturity:

> **Category 1**: Securities issued by the Kingdom of Denmark

> **Category 2**: ROs, SDOs and SDROs with a circulating volume of more than 1 bn euro or the equivalent value in Danish kroner. The bonds must also be comprised by a price-quoting system approved by Danmarks Nationalbank for this purpose and have at least three price quotes

> **Category 3**: Other ROs, SDOs and SDROs, as well as bonds guaranteed by the Kingdom of Denmark and bonds issued by KommuneKredit

> **Category 4**: Bonds issued by the government of the Faroe Islands.

> Figure 19: Haircuts for eligible securities with fixed or variable coupon rate*

Remaining maturity	Category 1	Category 2	Category 3	Category 4
0-1 year	0.5%	1.0%	1.0%	4.0%
1-3 years	1.0%	1.5%	2.5%	7.0%
3-5 years	1.5%	2.5%	4.0%	8.5%
5-7 years	2.0%	3.5%	5.0%	10.0%
7-10 years	3.0%	4.5%	6.0%	11.0%
> 10 years	5.0%	8.0%	9.0%	14.0%

Source: Danmarks Nationalbank, HSBC

* When a theoretical price is used, an additional haircut of 5% is deducted for all types of securities, except for securities issued by the Kingdom of Denmark. An exchange-rate haircut of 3% is deducted when securities in euro are pledged as collateral for credit facilities in DKK.

XI. SWEDEN: ELIGIBILITY CRITERIA FOR THE RIKSBANK

The Central Bank of Sweden, the Riksbank is accepting covered bonds as collateral for Open Market Operations. This includes loans on an intraday and overnight basis as well as Repos with longer maturities.

Eligibility of assets

In order for an asset to be accepted as collateral, the outstanding volume for each issue must be at least SEK 100 mn (or the equivalent in another currency). Also, the securities must be denominated in one of the following currencies: USD, GBP, DKK, EUR, JPY, NOK or of course the Swedish Krona (SEK). The issuer must be domiciled in either the USA, Australia Belgium, Denmark, Finland, France, Greece, Ireland, Italy, Japan, Canada, Luxembourg, Netherlands, Norway, New Zealand, Portugal, Switzerland, Spain, United Kingdom, Sweden, Germany and Austria.

The asset also ought to meet the following criteria concerning its credit rating:

> It must have at least a credit rating of AA-

> The credit rating must be confirmed by the credit rating agencies that the Riksbank acknowledges: Standard & Poor’s, Moody’s, Investor Services and Fitch Rating

> It may not be rated by a possible guarantor

> For securities which are not issued by credit institutions, confirmation of only the issuer’s credit rating is acceptable

> The most current credit rating has to be used

> In case of credit assessments by more than one rating agency, the asset must meet the rating requirements in at least two credit ratings

> The Riksbank can always chose to assess the credit quality in a way different from the rating agencies to decide whether an asset may be utilized as collateral

Covered Bonds

Covered Securities, such as Covered Bonds, must meet the requirements in Article 52.4 of Directive 2009/65/EC of the European Parliament and of the Council of July 13, 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investments in transferable securities (UCITS). This means that, covered assets outside of the EEA cannot be regarded as such and can therefore not be seen as collateral.

In light of the Covid-19 crisis, the permitted share of covered bonds in a counterparty's collateral volume for credit with the Riksbank was increased from 80% to 100%. Furthermore, the permitted limit for an individual covered bond issuer, or group of individual issuers, was raised from 50% to 100%, and the Riksbank accepts own-use covered bonds. All these measures are temporary.

Valuation of the collateral

When it comes to the asset valuation for both the Intraday Credits as well as the Repo-operations, the Riksbank differentiates between three major categories of assets, called 'liquidity classes'.

> Figure 20: Liquidity classes as defined by the Riksbankir

Liquidity class	Category 1	Category 2	Category 3
Types of assets	- securities issued by governments - securities issued by central banks - other receivables at central banks	- securities issued by international organizations - securities issued by governments - securities issued or guaranteed by municipalities, country councils or equivalent foreign local authorities - covered securities* - securities issued by so-called agencies**	Other eligible securities

Source: Riksbank, HSBC

* Such as covered bonds

** The following are considered to be agencies: Agence francaise de developpement (France), Bpifrance Financement (France), Ciasse d'armotissement de la dette sociale (France), Ciasse des depots et consignations (France), Erste Abwicklungsanstalt (Germany), European Financial Stability Facility (Luxenbourg), Federal Home Loan Mortgage Corportation (USA), Federal National Mortgage Association (USA), FMS Wertmanagement (Germany), Fondo de Reestructuración (Spain), Instituto de Crédito Oficial (Spain), KfW (Germany), Landesbank Baden-Württemberg (Germany), Landwirtschaftliche Rentenbank (Germany), Nedeerlandische Waterschapsbank (Netherlands), NRW.Bank (Germany), Union Nationale Interprofessionelle pour l'Emploi dans l'industrie et le Commerce (France)

On the basis on the classification outlined in Figure 20, the hair following haircuts (Figure 21) are applied. It is however noteworthy that an extra hair-cuts will be applied if the asset is valued theoretically. This is not the case if it has been issued by the Riksbank. Also, for assets denominated in a currency other than the Swedish Krona, a further hair-cut is applied to reflect the foreign exchange risk (4% for EUR, DKK and NOK; 5% for GBP; 6% for USD and 9% for JPY).

> FIGURE 21: HAIRCUTS APPLIED TO SECURITIES BY THE RIKSBANK*

Remaining maturity	Category 1			Category 2			Category 3		
	Fixed rate	Fixed rate	Fixed rate	Variable rate	Zero coupon	Variable rate	Zero coupon	Zero coupon	Zero coupon
0-3 year	3.0%	1.0%	3.0%	3.0%	3.0%	5.0%	8.5%	6.0%	9.0%
3-5 years	4.0%	2.0%	7.0%	5.0%	4.0%	10.0%	11.0%	8.5%	14.0%
5-7 years	5.0%	5.0%	9.0%	7.0%	6.0%	15.0%	15.0%	12.0%	27.0%
7-10 years	6.0%	6.0%	12.0%	10.0%	10.0%	20.0%	20.0%	17.0%	35.0%
Greater than 10	7.0%	7.0%	20.0%	15.0%	14.0%	25.0%	35.0%	30.0%	40.0%

Source: Riskbank

* A haircut of 0.5% will be applied to account balances with central banks. Haircuts are not applied to account balances with the Riksbank and to securities issued by the Riksbank.

XII. COVERED BONDS AND REPOS: CONCLUSION

The comparison of the various treatments of covered bonds by some of the major central banks underlines the special status of covered bonds. In our opinion, this is driven by the macro-economic benefits of covered bonds through the provision of cheap residential (and commercial) mortgages and by giving banks a stable and relatively low-cost additional funding channel. However, there is no uniform approach and stances towards covered bonds by the various central banks differ considerably. Broadly speaking, covered bonds receive more favourable treatment in those countries where they play a more pivotal role in the funding of the domestic banking sector. This applies primarily in terms of eligibility of covered bonds as collateral for repo operations, but also in terms of the haircuts.

2.4 COVERED BONDS VS. OTHER ASSET CLASSES

By Florian Eichert, Crédit Agricole CIB,
Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group and Sebastian von Koss, HSBC

I. INTRODUCTION

In the past, a traditional ranking based on spreads would have always had sovereign bonds trade the tightest followed by sub-sovereigns and agencies, and then covered bonds followed by senior unsecured debt. However, with the financial crisis and the subsequent sovereign debt crisis as well as the quantitative easing (QE) programmes by the Eurosystem since 2014, this ranking as well as the spread differences between these products have been profoundly shaken up.

Instead of trading with a significant pick-up compared to the respective sovereign, covered bonds in a number of countries have evolved to be the tightest product, in the case of Italy at some point trading as much as 200bp inside their respective sovereign debt. Senior unsecured debt on the other hand widened to levels vs. covered bonds well in excess of their pre-crisis levels only to come back to trade exceptionally close to covered bonds as investors viewed the emergence of non-preferred senior debt as additional protection while at the same time reducing preferred senior issuance flow from a substantial river to a tiny stream.

In this article we will take a look at how spreads have evolved between these products. We will assess what the rationale is for the differences and show how investors deal with the situation and why they buy at the levels they buy.

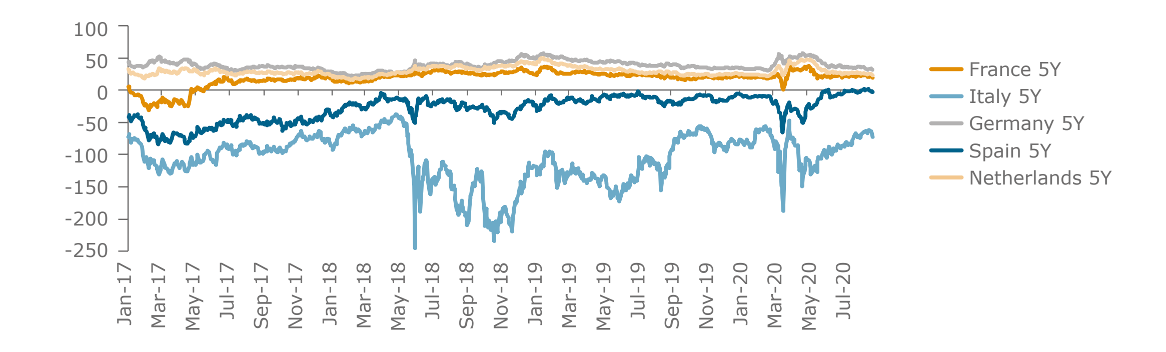
II. SPREAD OVERVIEW COVERED BONDS VS. SOVEREIGN DEBT AND SENIOR UNSECURED

Since 2014, spreads between covered bonds and sovereign / agency / supra debt have been driven to a large extent by the QE programmes and more generally the monetary policy stance of the Eurosystem. When the first round of QE started in October 2014 the European Central Bank (ECB) only included covered bonds and ABS in the scope of eligible purchases. This led to a substantial tightening of spreads between covered bonds and public sector debt up until mid-January. When the Eurosystem finally announced the expansion of QE to public sector debt, the differences widened again. Early in 2018 spread differentials to sovereign debt and SSA markets had reached a turning point. With Pfandbriefe trading at levels vs swaps as low as MS-30bp as well as inside KFW, bank treasuries started to sell covered bonds to move into SSA debt. And when the Eurosystem then started reducing its orders in new issues from 50% to first 40% and then from April to 30%, covered bond spreads started a widening trend that only came to an end early 2019.

At the same time, a changing outlook for monetary policy as well as uncertainty around the global growth led to a flight to quality, which pushed core sovereign bond yields to all-time lows and swap spreads significantly wider. Covered bonds struggled to follow sovereign debt down into the rabbit hole of negative rates, hence their spreads to core sovereign debt especially at the short end moved move wider.

The beginning of the Covid-19 crisis early 2020 then yet again changed the dynamics. On the one hand monetary policy became even more accommodative and the newly introduced PEPP focused to a large extent on public sector purchases with the cumulative covered bond buying by the ECB remained more or less unchanged. At the same time, however, primary market dynamics changed completely as well with sovereign and SSA funding needs shooting up while covered bond issuance dropped on the back of rising deposits and long-term central bank liquidity such as the TLTRO III by the ECB and TFSME by the Bank of England.

> Figure 1: Average asset swap spreads 10Y Spanish covered and sovereign bonds bp



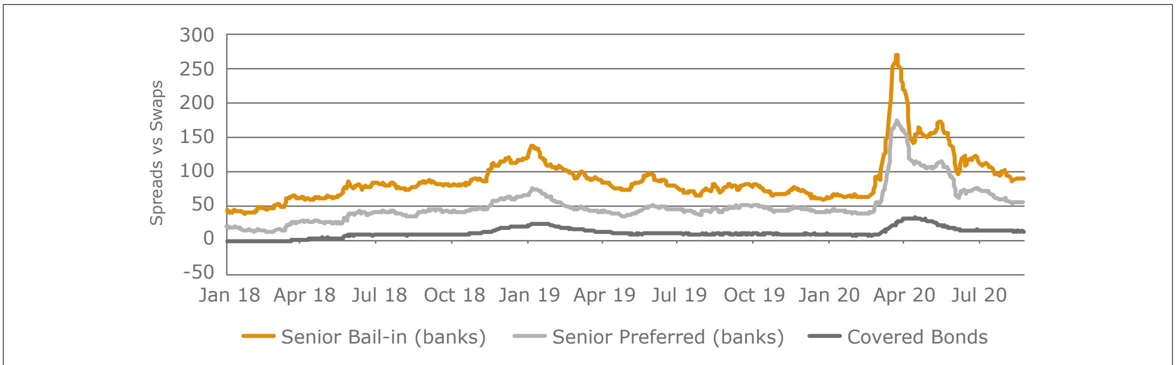
Sources: Bloomberg, Crédit Agricole CIB

Bank treasuries generally have a broad range of funding channels available including deposits, covered bonds, securitisation and unsecured funding. All of these various funding tools have their pros and cons from an issuer perspective. Senior unsecured funding is probably the most flexible form as it does not restrict the composition of the asset side. Covered bonds on the other hand require the issuers to maintain a cover pool of high quality assets backing the bonds. Moreover, regulatory rules and rating agencies often require that the mismatch between the cover assets and outstanding covered bonds is limited and that the covered bond issuer holds a certain amount of overcollateralisation (OC). In particular the rating agencies often demand high OC level going well beyond the legal requirements.

From an investor perspective, the secured character of covered bonds combined with their favourable regulatory treatment (low risk weights, exemption from bail-in under BRRD, LCR-eligibility, etc.) make them an attractive investment usually reflected in significantly lower spread levels than senior unsecured debt.

In a risk-on environment, the spread differentials between senior unsecured bank debt and covered bonds tend to be relatively low. In a compressed yield environment, investors in search of yield are inclined to accept the higher risk of unsecured paper in return for a relatively small risk premium. This is particularly true for shorter-dated senior unsecured paper and for bonds issued by strong institutions, where the downside risks are often regarded as being smaller. However, if the market is in risk-off mode the yield differentials between both asset classes tend to be higher as well as more volatile. Figure 2 show the divergent spread impact of the Covid-19 crisis on the spreads of covered bonds on the one hand and on those on senior non-preferred and senior preferred on the other hand.

> Figure 2: Covered Bonds vs Senior Prefered and Senior Non-Preferred Bank Bonds



Source: IHS Markit, HSBC

From an issuers perspective the choice between the various funding instruments has become more complex and is no longer simply a function of lower funding costs. In the world of TLAC (Total Loss-Absorbing Capacity) and MREL (Minimum Requirement for Own Funds and Eligible Liabilities), bank treasuries have to ensure a minimum level of bail-in-able debt, which could be achieved by issuing senior unsecured debt. Many EU banks issue senior non-preferred debt to fulfil the requirements for bail-in-able debt. Moreover, covered bonds limit the issuer's flexibility regarding the underlying cover assets and cause higher administrative costs (e.g. hedging, additional ratings, cover pool administrator) compared to senior unsecured bonds. If the spread between both asset classes is lower than the difference in administrative costs and the costs for the reduced flexibility, then it is often more attractive to issue senior unsecured debt. This holds even more true if an issuer needs to raise the amount of bail-in-able liabilities.

The observed generally low spread differentials between covered bonds and senior unsecured bonds are in stark contrast to the regulatory developments over the last few years. Covered bonds are exempted from bail-in under the Bank Recovery and Resolution Directive (BRRD) which is also reflected in the more covered bond-friendly rating methodologies of the major rating agencies (see separate section below). However, we believe these factors continue to have only a limited impact on spreads, as technicals (supply volumes, absolute yield levels and central bank policies) will remain the dominant spread drivers. Moreover, even with BRRD and Single Resolution Mechanism (SRM) in place, many senior unsecured investors still view it as unlikely that there will be a senior bail-in of large, systemically important institutions, especially since many issuers are in the process of building up a buffer of senior non-preferred bonds, making a bail-in of senior preferred bonds less likely. The senior unsecured ratings of many covered bond issuers have already been upgraded due to the build-up of bail-in-able securities.

III. WHICH FUNDAMENTAL FACTORS DRIVE COVERED BONDS VS. SENIOR UNSECURED?

Comparing covered bonds and senior unsecured bank debt is ultimately a choice of where to invest within a bank's capital structure. Both asset classes are senior bank liabilities. Senior unsecured debt is structurally subordinate to covered bonds due to covered bond holders' preferential claim on the cover pool, on which senior unsecured creditors have a claim on only after covered bond holders and other preferred creditors have been fully repaid.

The relative value between both asset classes is driven by various aspects:

> **Probability of default**: Covered bonds are structured to survive an issuer event of default and not to accelerate automatically. As a result, the *conditional* probability of default (PD) of a covered bond (i.e. probability of payment interruptions on the covered bonds post issuer default) should typically be lower than the senior unsecured PD, which represents the cap for the covered bond PD. The strength of the covered bond framework plays a major role here. This includes provisions for an effective segregation of cover assets and privileged derivatives in an insolvency scenario as well as (structural) features to mitigate liquidity risks such as liquidity buffers or different repayment structures. The introduction of senior non-preferred debt in many European countries has created an additional buffer for senior preferred debt, reducing the PD of such instruments.

> **Recovery rate**: Different recovery rates are a major determinant between covered bonds and senior unsecured paper. In a default scenario, covered bond holders benefit from the double recourse to both the cover pool and to the issuing bank, ranking *pari-passu* with senior unsecured investors should the cover pool be insufficient for a full recovery. Senior secured issuance structurally subordinates senior unsecured creditors, reducing their recovery expectations. Both the overcollateralisation (OC) level and the quality of the collateral are decisive factors for the expected recovery of a covered bond relative to senior unsecured bonds. As normally only high quality assets are included in the cover pool and the sometimes very high level of OC reduce both the quantity and the quality of the assets (directly) available to senior unsecured bondholders.

> **Bail-in risk**: Systemic support has been the main determinant for the very low default rates on senior unsecured bonds despite a number of bank failures that occurred during the financial crisis. However, bail- in risk has become a new factor to the relative value equation. While covered bonds have been generally exempted from bail-in under the European bank resolution framework (with the exception of any undercollateralised part), senior unsecured creditors can be subject to bail-in under the Bank Recovery and Resolution Directive (BRRD) before resolution funds are tapped or taxpayer money is injected. However, as mentioned above, senior non-preferred bonds are subordinated to the traditional senior unsecured debt. This new asset class reduces the bail-in risk for senior preferred unsecured investors.

> **Regulatory treatment**: Covered bonds are treated favourably to senior unsecured paper in a number of regulatory frameworks, such as the Capital Requirements Regulation (CRR) where lower risk-weights are assigned to covered bonds, the liquidity coverage framework where senior unsecured paper are not eligible while most covered bonds qualify as either Level 1B, 2A or 2B, and Solvency II where covered bonds benefit from lower risk factors or the UCITS Directive allowing for higher investment limits in covered bonds. Unfavourable regulatory treatment can either exclude certain investor groups or lead to higher spreads being demanded as compensation for additional cost of holding senior debt compared to covered bonds.

> **Central bank repo eligibility and haircuts**: For bank investors, central bank repo eligibility is an important factor when structuring their liquidity portfolios. If eligible, central banks apply higher haircuts to senior unsecured bank paper than covered bonds. Higher haircuts increase banks' funding costs as the haircut part of the bond posted as collateral needs to be funded using alternative sources.

> **Rating stability and differential**: Rating agencies used to link their rating on covered bonds to the issuer/senior unsecured rating. The senior unsecured rating was the floor for the covered bond rating, with the uplift depending on asset-liability mismatches, recovery rates, and legal and structural aspects. In light of the new BRRD, all major rating agencies developed new frameworks at least partly decoupling covered bond ratings from the issuer rating. In essence, senior unsecured ratings benefit less from government support, while the gap between covered bonds and the issuer rating is wider. While even in the past covered bond ratings tended to be less volatile than senior unsecured bonds, this is the case even more under the revised criteria.

> Figure 3: Pros & cons of covered bonds vs. senior unsecured from an investor's point of view

Advantages of Covered Bonds	Advantages of Senior Unsecured Debt
> Double recourse to issuer and cover pool > Higher rating than unsecured debt > Lower risk weighting for CRR-eligible Covered Bonds bought by EEA banks > Favourable treatment under Solvency II > Generally better liquidity through larger issue size > Favourable repo treatment at ECB and other central banks > Most covered bonds are eligible as liquid assets under the CRR > No risk of bailing-in of the secured claim	> Higher yield levels (although 'spread give up' is at low levels at least at the short end of the curve) > Improved investor protection through higher capital requirements and implementation of senior non-preferred buffer > Often high turnover despite smaller deal sizes (due to lower portion of buy-and-hold investors)

Source: HSBC

1. Differences in regulatory treatment

Liquidity Coverage Ratio (LCR)

The liquidity coverage ratio which was first introduced by the Basel Committee on Banking Supervision in

December 2009 requires banks to hold a stock of unencumbered high quality liquid assets to meet 30 days cash outflows under an acute stress scenario. Meanwhile, the net stable funding ratio (NSFR) measures the amount of longer-term, stable sources of funding employed by a bank relative to the liquidity profiles of the assets and the potential for contingent calls on funding liquidity arising from off-balance sheet commitments and obligations.

While highly-rated covered bonds form part of the set of liquid assets, senior unsecured bank bonds do not qualify. Next to cash, deposits at central banks, all types of bonds issued or guaranteed by EU Member States' central government, certain agency and supranational issues, Level 1 HQLAs (High Quality Liquid Assets) include covered bonds that meet certain conditions: They must be issued by an institution out of the European Economic Area, be credit quality step 1 (i.e. a rating of AA- or better), have a minimum size of EUR 500m as well as a minimum overcollateralisation of 2%. Whilst other Level 1 assets are not subject to liquidity buffer limits or haircuts to their market value, Level 1 covered bonds will be subject to a 70% cap in the liquidity buffer and to a 7% haircut.

Level 2A assets include regional governments, local authorities or public-sector entities with a risk weight of 20% and covered bonds with a credit quality step 2 rating and non-EU covered bonds rated at credit quality step 1. Also, corporate bonds with at least credit quality step 1, a minimum issue size of EUR 250mn and maximum maturity of 10 years at the time of issuance are classified as Level 2A.

Level 2B incorporates high quality securitisations for RMBS, auto, SME and consumer loans and high quality covered bonds that do not meet the rating threshold of Level 1 and 2A. Shares meeting certain conditions and corporate bonds with at least credit quality step 3, a minimum issue size of EUR 250mn and maximum maturity of 10 years at the time of issuance are accepted as Level 2B.

The classification of covered bonds as Level 1 and Level 2 means that many European bank treasuries use covered bonds in addition to sovereign, agency and supranational debt in order to optimise their liquid asset portfolio under both liquidity and risk-return considerations. The spread impact on covered bonds, however, has been limited as spreads in this sector are already heavily compressed due to the CBPP3.

Risk-weights

In times of rising minimum requirements for regulatory capital, risk-weights applied for the calculation of a bank's stock of risk-weighted assets have gained further importance. Regulatory capital is a bank's most expensive source of funding and bank investors are optimising their portfolios taking into account the capital consumption of their positions.

Bank investors based in the European Economic Area (EEA) can apply preferential risk-weights for covered bonds, fulfilling the criteria laid down in Article 129 CRR compared to senior unsecured bank bonds. A lower risk-weight means that banks have to hold less regulatory capital against a given position which benefits the average funding cost and thus the spread which is required. Covered bonds not fulfilling those criteria receive the same treatment as senior unsecured bonds. *Please refer to Article 2.2 of the Generic Section, for details on the determination of risk-weights for covered bonds*.

Bail-in

In the EU, the Bank Recovery and Resolution Directive (BRRD) was adopted in 2014 together with the Single Resolution Mechanism (SRM). The BRRD defines the triggers for a resolution of a failing bank in the EU and provides the necessary tools while the SRM centralises the decision-making process for the large and cross-border banks in the Euro Area. At the heart of the BRRD lies the bail-in tool. The bail-in tool, which aims to ensure that shareholders, sub-debt and senior unsecured investors will bear the losses of a struggling bank rather than the taxpayers, has become available to most EU governments as of the beginning of 2016. The possibilities for governments to support banks will be narrowed considerably and senior unsecured is at risk of burden-sharing after equity, sub debt and senior non-preferred.

Covered bonds have been excluded from the list of bail-in-able liabilities. Where appropriate, resolution authorities could exercise bail-in powers to a part of a secured liability that exceeds the value of the assets, i.e. any under-collateralised part or senior unsecured residual claim.

BRRD/SRM implementation: Most countries follow in France's footsteps

The BRRD/SRM is implemented at national level since the insolvency laws vary from country-to-country, making a one-size-fits-all solution for all European banks complicated. France was one of the first countries to implement the new European bail-in directive by modifying the hierarchy of claims in case of a resolution and introducing a new category of senior debt that counts toward Total Loss Absorbing Capital (TLAC)/MREL. This new category of senior debt is referred to as senior non-preferred (SNP) and is subordinated to other senior obligations but ranking senior to the traditional subordinated debt. The French banks continue to be able to issue traditional senior debt. Many other European countries such as Spain, Italy, Austria, Denmark or and Sweden have followed into France's footsteps and also introduced MREL/TLAC-eligible senior non-preferred bonds as new asset class, ranking below senior-unsecured bonds.

Germany initially opted for a different approach but has amended its approach in the meantime. Since 21 July 2018 German banks are able to decide whether to opt for senior preferred or senior non-preferred debt. Plain vanilla senior unsecured bonds issued before that date are subordinated to the new senior preferred debt (but rank pari passu to senior non-preferred debt) and structured senior unsecured instruments. According to Article 64 of the ECB guidelines, in order to be eligible as repo collateral, marketable debt instruments cannot be subordinated to other debt instruments of the same issuer. Thus outstanding German plain-vanilla senior unsecured bank bonds, which had been issued before 21 July 2018, lost their ECB repo eligibility at the end of 2018.

In order to build up a sufficient capital buffer, banks have actively issues non-preferred bonds. That reduced the remaining wholesale funding needs and thereby negatively affects supply in (preferred) senior unsecured and to a certain extent even in covered bonds. Moreover, the introduction of the new asset class already had a positive impact on senior unsecured ratings as the senior non-preferred buffer offers additional protection from bail-in for senior unsecured investors. That could – at least in theory – reduce the spread between senior unsecured bonds and covered bonds.

UK: ring fencing of covered bonds

Since 1 January 2019, UK banks with a three-year average in retail deposits of over GBP 25bn must legally separate their core retail banking services from their investment and non-EEA banking activities. The goal of this structural reform was to support financial stability by making banking groups simpler and easier to 'resolve', ensuring that "if either the ring-fenced or the non-ring-fenced part of the bank fails, it will be easier to manage the failure in an orderly way without the need for a government bail-out". Building societies are exempted from ring-fencing.

The ring-fenced part primarily includes the domestic UK retail business, while the non-ring-fenced part mainly comprises the corporate and investment banking business of the banks. The residential mortgage business remains part of the ring-fenced bank and the covered bonds are issued out of the ring-fenced entity. Rating agencies reacted and the issuer ratings of several ring fenced entities were upgraded, while the non-ring-fenced entities were downgraded.

Moreover, Moody's stated in a sector comment that the inclusion of UK covered bonds within the ring-fenced banks (RFBs) "is credit positive for covered bonds as the RFB structure decreases the likelihood of bank failure and, as a consequence, the likelihood that banks will cease making payments under the covered bonds". In its report, Moody's emphasised the importance of the credit strengths of the issuers as one of the key drivers of the covered bond ratings and indicated that "the credit profiles of RFBs will be in line with or stronger than those of the existing banks, reflecting the less complex and less diversified business models of the RFBs relative to existing banks".

2. Ratings

Amended rating methodologies

In light of the bank resolution regimes, the major rating agencies have introduced amended methodologies for covered bonds. As a result, the average gap between issuer and covered bond ratings has widened. On the one hand, covered bonds are explicitly exempted from bail-in and the changes of the rating methodologies by the agencies reflect the preferential treatment of covered bonds under the new resolution regimes. On the other hand, issuer downgrades in some cases partly offset this positive effect. Nevertheless, the overall net effect of the introduction of the bail-in rules has been positive for the covered bond ratings.

From an analytical perspective, it is crucial that the starting point of the covered bond ratings is not the senior unsecured rating as the bailing-in of senior unsecured debt no longer automatically triggers an issuer default. The resolution measures principally aim at maintaining a going-concern entity. The fact that covered bonds are exempted from bail-in measures means that a different starting point for the covered bond rating has to be used. The recent changes of the rating methodologies address, at least partly, this new situation.

Structural subordination

Differences in recovery expectations are another main determinant of the relative value between covered bonds and senior unsecured. Against this backdrop, rising concerns from senior unsecured investors about structural subordination have been a factor supporting the covered bond market. The increased use of covered bond funding by banks over the last several years means that more assets were ring-fenced. As assets in the cover pool are not available to cover the claims of senior unsecured investors in case of issuer insolvency[1], market participants have started to worry about the growth in covered bond issuance and the subsequent reduction of assets available to unsecured investors in an insolvency scenario. This problem has been exacerbated by rating agencies' demands for higher overcollateralisation levels, which in most cases significantly exceed the legal overcollateralisation requirements and further reduce the amount of assets available for investors outside the cover pool.

While we understand the concerns in the market, we think asset encumbrance discussions often tend to overstate the problem arising from structural subordination through covered bonds while ignoring other sources of encumbrance (including contingent encumbrance when a bank's financial situation deteriorates) such as central bank repos/liquidity assistance as well as ignoring offsetting factors. The use of covered bonds usually results in lower funding costs for the banks and significantly broadens the investor base allowing issuers to tap rates investors such as central banks. In addition, it is a more stable funding base. Even if the unsecured market is closed for an issuer, the bank may still be able to access the wholesale markets by using covered bonds or, in a worst case scenario, it can retain the bonds to repo them with central banks such as the ECB. Moreover, the potential issuance volume of covered bonds is not unlimited. The availability of eligible assets is a restricting factor for covered bond issuance, putting a cap on the actual issuance potential. Also, the aforementioned requirements from rating agencies of high overcollateralisation levels further reduce the available headroom for covered bond issuance.

1 If all the covered bonds of an insolvent issuer have been repaid and the claims of all covered bond investors have been satisfied, the remaining assets in the respective cover pool would generally be made available on a pro-rata basis to the senior unsecured investors. Moreover, in some jurisdictions, such as Germany, in case of issuer insolvency senior unsecured investors would have access to assets in the cover pool that are obviously not necessary to cover the outstanding covered bonds and related liabilities. Given the dynamic character of the market, a very high hurdle must be overcome in order for this process to trigger, and we would expect that only in very few, selected cases the insolvency administrator of the cover pool would agree to such a transfer.

IV. WHICH FUNDAMENTAL FACTORS DRIVE COVERED BONDS VS. SOVEREIGN AND SUPRA/AGENCY DEBT…?

Despite the fact that covered bonds in a number of countries have at times traded well inside their sovereign debt, sovereign risk does fundamentally impact covered bonds. In fact, it impacts covered bonds in virtually all aspects of the product – the issuer, the quality of the cover pool, liquidity and refinancing risk in the structure as well as ratings.

> Issuers especially those with a strong domestic presence are directly impacted by a weakening sovereign. Their business prospects deteriorate as a weaker sovereign and a weaker economic situation go hand in hand. In addition to this, many bank treasuries hold substantial volumes of their own sovereign debt making them directly susceptible to widening sovereign spreads.

> Cover pool assets are impacted as weaker economic growth usually means higher unemployment and thus higher NPL ratios.

> With very few exceptions, covered bonds are not pass-through securities. Hence bullet bonds refinance granular loan portfolios and there are mismatches that need to be refinanced via external liquidity. Should a sovereign run into trouble, issuers will find it harder and harder to refinance liquidity mismatches either via further issuance, third party liquidity lines or portfolio sales. Covered bond programs backed by pools that might not even have any problems credit quality wise could thus be impacted negatively.

> For rating agencies sovereigns play a major role in rating covered bonds. They link issuer ratings to that of the sovereign unless an issuer has a substantial presence in other countries as well. They factor in sovereign bond spreads into their cash flow cover pool models thus driving up OC requirements in times of sovereign stress. And last but not least, Fitch, Moody’s and S&P all operate with sovereign ceilings for structured finance instruments including covered bonds.

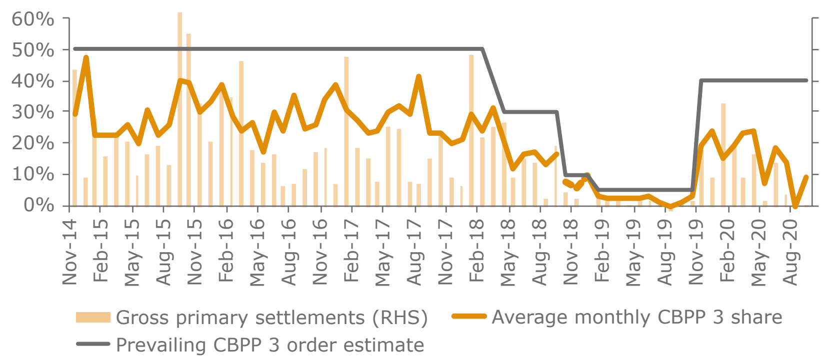
Bottom line is that sovereign risk does play too big of a factor in covered bond structures to just ignore it. Nonetheless there are reasons why in some cases covered bonds can very well trade inside their respective sovereign bond curves.

Stock effect of QE holdings

We have mentioned above that the QE programmes by the Eurosystem have played a major role in the evolution of the spreads of all affected markets. Beyond the short term trading view that has driven the affected markets tighter after the respective QE announcements, the longer term spread impact of QE strongly depends on the actual share the Eurosystem’s acquires in these sectors and how much the Eurosystem could rely on primary rather than only secondary purchases in a given country.

Overall, the Eurosystem has acquired around 45% of the eligible universe at the end H1 2020. The only other market for which we are talking about comparable numbers is debt issued by supranational institutions. Other than on the CBPP 3 side, the Eurosystem was also not allowed to directly buy new issues in primary markets. Hence, while being disruptive in sovereign debt markets as well, the extent was bigger for covered bonds and it could especially be felt in peripheral sectors. Issuance volumes collapsed as banks made use of TLTRO liquidity, deposits as well as preferred and non-preferred debt to build MREL buffers. At the same time, the CBPP 3 aimed for a market neutral portfolio, which meant above all in Spain, that it had to source substantial volumes in secondary markets.

> FIGURE 4: GROSS PRIMARY MARKET SETTLEMENTS PER MONTH (EURM) CBPP 3 AS WELL AS ESTIMATED ORDER SIZE (% OF ISSUE SIZE)



Source: Bloomberg, Crédit Agricole CIB

Rating stability

Despite rating agencies factoring in sovereign ratings into covered bond ratings, they do allow for a certain rating uplift above the sovereign. The maximum uplift depends on the rating agency and collateral type but it can reach up to 6 notches with Moody's or Fitch for example. Thanks to this uplift covered bond ratings do not react as fast as their respective sovereign ratings. Especially when sovereign ratings start to come under pressure, covered bonds often see their ratings remain stable. Only once the maximum uplift above the sovereign is used up do they start to move as well.

Moody's and Fitch's OBG ratings of Italian national champions for example are still rated 6 notches above the Italian sovereign and they have been much more stable historically than the Italian sovereign. In Spain, the sovereign is rated Baa1 by Moody's while the Cedulas of many issuers are by now back to Aa1. Last but not least, in Portugal, investors who were prohibited from holding non-investment grade debt had Portuguese covered bonds as one alternative. Spreads of Portuguese covered bonds thus traded as much as 200bp inside their corresponding sovereign. As Fitch, S&P and then also Moody's upgraded the sovereign into investment grade, however, the spread moved back into positive territory.

> FIGURE 5: COVERED BOND VS. SOVEREIGN BOND RATINGS

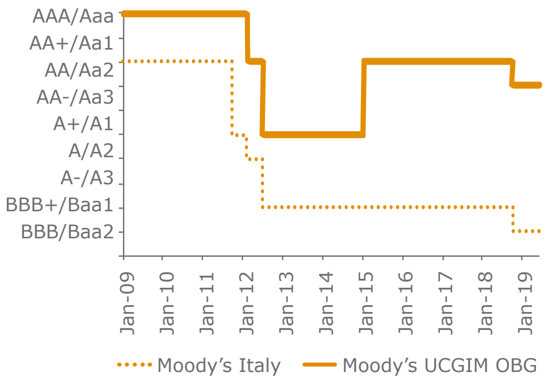
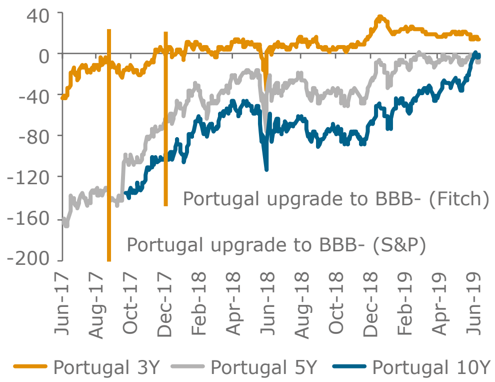


FIGURE 6: PORTUGUESE COVERED BOND VS SOVEREIGN SPREAD (BP)

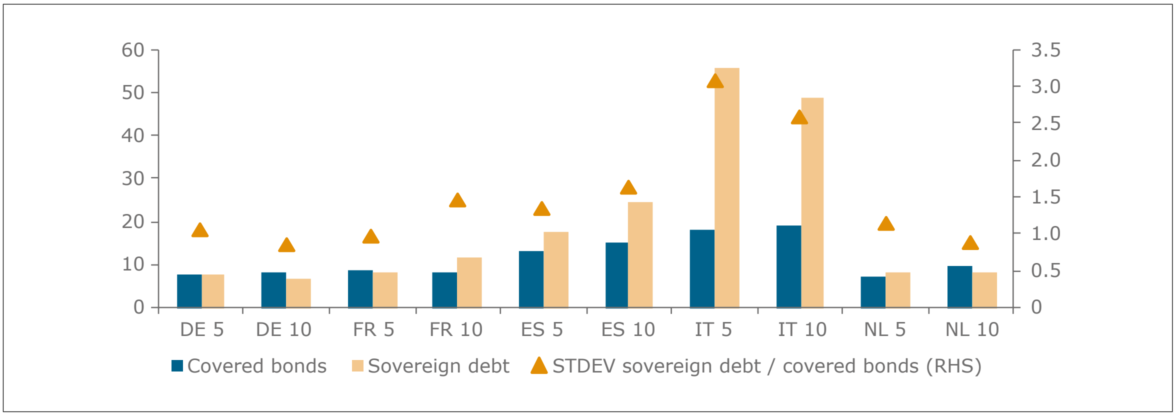


Sources: Bloomberg, CréditAgricole CIB

Spread stability

One of the main arguments pro covered bonds throughout the sovereign crisis or more recent episodes of rates volatility has been their spread stability. While even German Bunds at times experienced intra-day volatility of 20bp and more, covered bonds remained extremely stable. Looking at the average standard deviation of ASW spreads between 2015 and today shows that the covered bond volatility has been a fraction of their corresponding sovereign debt markets especially in countries such as Italy, Spain but also France.

> FIGURE 7: 2015-2020 STANDARD DEVIATION ASW SPREADS COVERED BOND VS. SOVEREIGN BOND (BP)



Source: Bloomberg, Crédit Agricole CIB

One of the reasons for this lagging of covered bonds is certainly the different investor base and less active trading in covered bonds. Buy and hold investors play a much more important role in covered bonds and the impact of the CBPP 3 is substantially higher than the PSPP in sovereign debt whereas trading accounts are more active in sovereign debt.

Spread volatility is less of a problem for long term buy and hold investors but certainly causes problems for asset managers valuing their funds' assets. It also causes problems for banks VAR calculations. While European banks do not (yet) have to hold capital for European sovereign debt, they do have to hold capital to cover the volatility of their trading assets. And the more volatile a certain asset is the more capital banks have to hold. Spread stability of covered bonds thus has a very feasible economic value and reduces the overall capital consumption difference to sovereign debt.

Last but not least, despite not having to hold capital on sovereign exposures, banks in countries with the highest exposure to the domestic sovereign such as Italy have begun to reduce their sovereign debt holdings as markets as well as supervisors have taken a more negative stance. For Italian banks for example, one way to minimise the spread give-up from diversifying away from domestic sovereign debt has been to look at covered bonds. This has thus been providing the OBG market with additional demand at levels well inside BTPs.

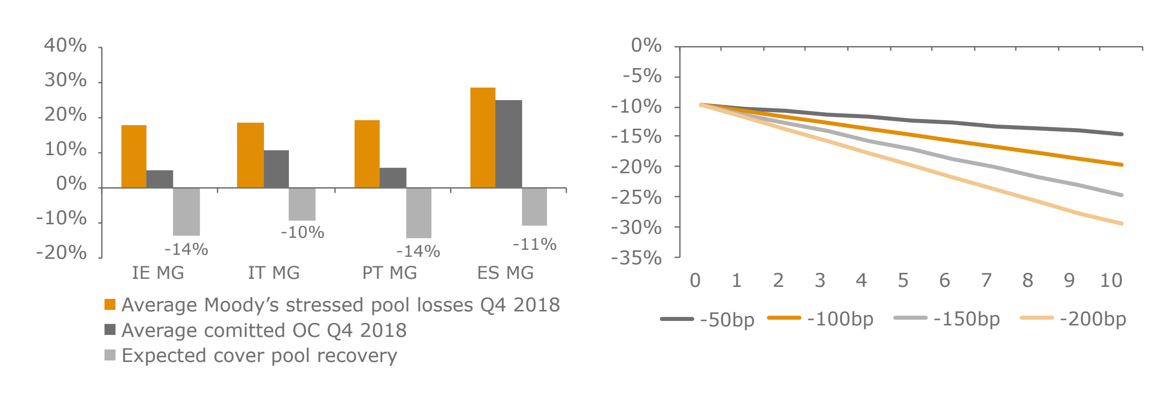
Tail risk – expected recoveries

One of the most powerful arguments that can be brought forward to defend negative covered-sovereign bond spreads is the expectation that tail risk in covered bonds is less than it is in sovereign debt. Especially some long-term investors such as insurance companies started to feel more comfortable with the collateralised claim than the sovereign debt during the sovereign crisis.

When making this argument, it is however important to go one step further as the validity of this statement depends on the actual pool backing the covered bonds, the framework regulating it and most importantly as well the issuer itself. Chances that this view will prove correct are much higher for high quality residential mortgage backed covered bonds from a country with a strong framework that are issued by a systemically important bank than lower quality public sector backed covered bonds issued by a small non-systemically important issuer. Another important aspect is that the stronger a sovereign is the less relevant are considerations about tail risks and recoveries while they become much more important where sovereigns are in a difficult situation.

It is hard to estimate cover pool recoveries based on issuer reporting. However, rating agencies such as Moody's publish the results of their own cash flow modelling of cover pool assets and liabilities. Moody's stressed pool losses are the loss the agency expects should a cover pool be wound down. One can use this number and apply it to a pool which is left with legal minimum OC to come up with an estimated recovery rate. For Italian mortgage cover pools for example the estimated loss is around 10% if the bond was purchased at par (committed OC of on average 11% and stressed pool losses of just below 19%).

> Figure 8: Committed OC, Moody's stressed pool losses, and required sovereign haircut to be better off with covered bonds



Sources: Moody's, Crédit Agricole CIB

This estimated pool recovery figure can be used to either estimate cash prices below which a purchase should result in a positive return even if both the bank and the covered bonds were to default. It can, however, also be used as a proxy for the required haircut on a sovereign bond that would make the covered bond the better option. In the Italian case for example, if a sovereign haircut on Italy were to be in excess of 10%, the expected recovery on the OBG would be higher. If investors believe the haircut is lower, sovereign debt would be the better option.

If one adds negative covered-sovereign spread to the equation, the sovereign bond obviously produces extra carry which in effect means that the sovereign bond investor builds up an additional buffer and that the expected recovery moves by that negative spread to the disadvantage of covered bonds. In other words, the better recovery on covered bonds has its price and at some point, the balance shifts to the sovereign debt depending on the cover pool quality, strength of the bank and framework.

What this calculation does not take into account though is the probability that some banks can very well survive a sovereign debt restructuring (via capital support by the domestic sovereign or a European entity and liquidity support by the Eurosystem) and that, irrespective of potential pool recoveries, covered bonds could be the better choice. Countries need to maintain a basic level of banking services and sovereigns would most likely recapitalise at least some of the country's large retail banks immediately after the sovereign debt restructuring. National Bank of Greece is the best example for this.

Recoveries based investing is something that took place at the height of the crisis when peripheral covered bonds were trading in the 60 to 70 cash price range. At the current price levels the investors that focused on this for their trading are long gone from covered bond markets. For long term investors that want to assess tail risks, the recovery assessment vs. sovereign debt can however still make sense.

V. HOW DO INVESTORS MANEUVER BETWEEN THE PRODUCTS?

Covered-senior

We believe that one of the reasons for dislocations in spreads between unsecured and secured bank debt has been the limited overlap of senior unsecured and covered bond investors. Many investors still cannot directly play opportunities that arise between both asset classes. The main reasons for the limited overlap are in our view: (1) central banks and sovereign wealth funds are large buyers of covered bonds but not of senior unsecured debt, (2) banks are one of the biggest investor groups in covered bonds and regulatory provisions favour covered bonds, (3) asset managers and pension funds often have higher limits for covered bonds than for senior unsecured bank debt, and (4) both asset classes are usually bought for different dedicated portfolios. In addition, covered bonds are sometimes used to enhance the yield of sovereign bond portfolios without diluting the average rating, or added to genuine credit portfolios to improve the portfolio rating quality.

Anecdotal evidence from analysing order books over time, however, suggests that the overlap in the investor base has increased in recent years due to a higher participation of credit investors in new covered bond issues. We expect this trend to continue over the coming years and credit investors to account for a growing portion of covered bond order books going forward, not least because of the bail-in risk for European senior unsecured debt and the relative value opportunities this will create between these two asset classes.

Furthermore, in the current low-yield environment, spreads between covered bonds and senior unsecured paper are, to a large extent, driven by technicals such as the ECB purchase programme which maintain spreads often at a level below fundamental values.

Covered-sovereign

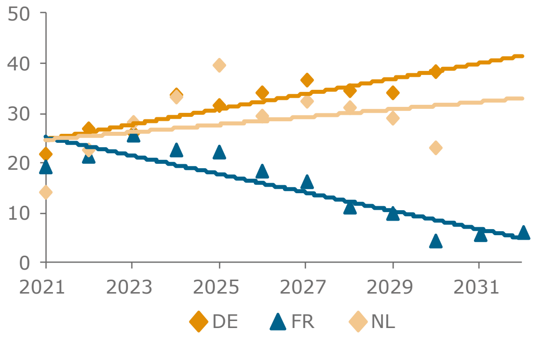
The biggest focus on the covered bond to sovereign debt relationship can be found amongst bank treasuries. After all, covered bonds are part of the LCR eligible universe and as such quite naturally compete against sovereign bonds as well as SSA debt. It is, however, also relevant for fund managers' aggregate portfolios, which often look at covered bonds as a low risk alternative offering a positive carry vs sovereign debt. Last but not least, spreads of domestic sovereign bonds are very often seen as a floor for investments in other products. Buying covered bonds that produce a significant negative carry vs. the own domestic sovereign debt is often problematic. The exception to this rule has recently been Italy. Despite trading as much as 200bp inside BTPs, domestic investors have nonetheless purchased OBGs. The sizeable BTP holdings amongst especially Italian banks and pressure on them to diversify liquidity portfolios have certainly played an important role here.

When comparing covered bonds to sovereign debt, there are a number of elements to take into account. In a very simplified approach, on the one end there is the higher liquidity of sovereign debt and lower capital charges compared to covered bonds while on the other end, spread stability and potentially higher ratings and recoveries can speak in favour of covered bonds. The liquidity and capital charge arguments pro sovereign debt are valid across the curve. However while spread stability as well as recoveries are no major topics at the very short end, these topics become more and more relevant the longer a bond is. As a result, covered bond – sovereign bond spread curves have typically sloped downwards in recent years.

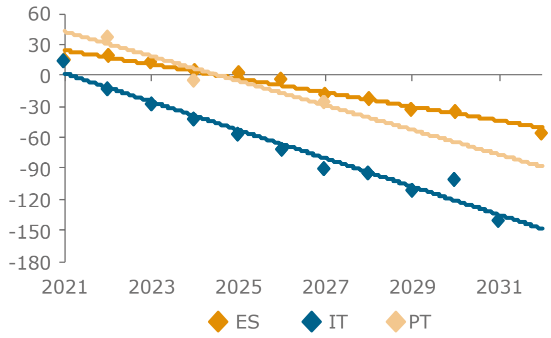
However, which of these factors has the upper hand of course depends on the market environment. For example, Germany was an exception to this rule as the 10Y Bund is used as a very liquid flight to quality instrument leading to rather wide spreads of Pfandbriefe at the long end too. More recently, the curve slope for covered bond – sovereign spreads has also turned positive in countries such as France or the Netherlands as their sovereign bond markets performed very well while covered bond spreads were floored at a level slightly below spreads flat to swaps.

In any case, the weaker the sovereign is and the stronger the covered bond framework and cover pool are the lower or even negative spread differences between covered bonds and sovereign debt should be and the steeper should the curve slope downwards. As a result Italian covered bonds trade the furthest inside their respective sovereign debt with the curve sloping downwards the most. In case of Portugal, the improvement on the sovereign rating as well as sovereign bond spreads led to covered bonds trading at positive spreads again with the covered bond – sovereign curve sloping downwards only very marginally.

> Figure 9: Covered govie spread curves per country (bp)



> Figure 10: Covered govie spread curves per country (bp)



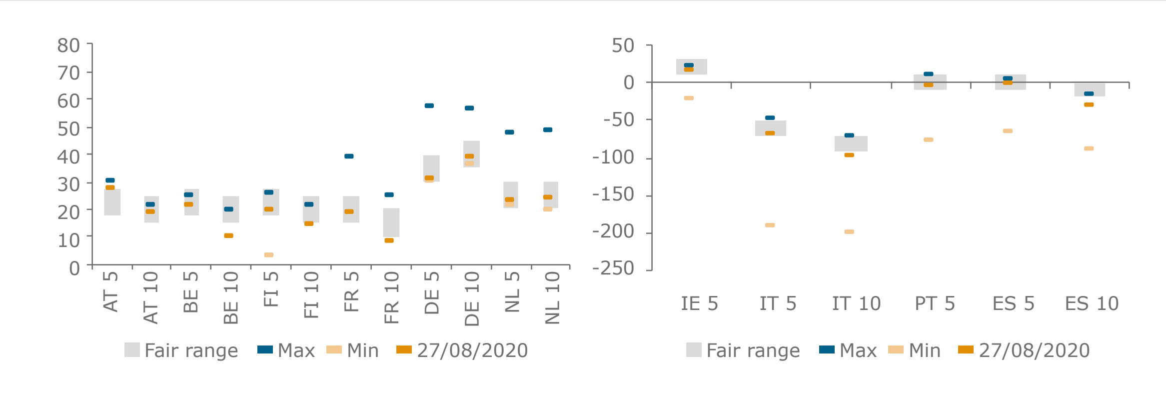
Sources: Bloomberg, Crédit Agricole CIB

Being a more recent factor, negative rates have had an impact on the relationship between sovereign debt and covered bonds. When Bunds at the short end moved to yields as low as -0.9% in 2017, covered bonds struggled to follow. Consequently the spread to the underlying sovereign became very positive at the short end leading to a smiley shaped covered bond ASW spread curves in the tightest core sectors.

However, since then many investors in covered bonds have become used to buying at negative interest rates in secondary markets leading to a normalisation of curve shapes. The cost of holding cash has also increased markedly over recent years after all with banks in the Eurozone being charged -0.5% in the ECB deposit facility while asset managers are sometimes charged as much as -1% by their custodians. A short dated covered bond trading at a negative yield of -0.2% can thus be an attractive investment. Last but not least, a sizeable part of the covered bond investor base swaps holdings making absolute yield levels decidedly less relevant.

Below we have tried to estimate fair value ranges between covered bond and sovereign debt by country and maturity.

> FIGURE 11: 5Y /10Y EUR COVERED BONDS VS. LOCAL SOVEREIGN DEBT (BP)



Sources: Bloomberg, Crédit Agricole CIB

VI. WRAP UP

From an investor's point of view, in times of low yield differences, covered bonds gain attractiveness compared to senior unsecured debt. By accepting a relative low yield give-up investors are able to switch into an instrument of much lower risk and much higher regulatory support. In a low-yield environment where investors are looking for every single basis point, this argument might be of less relevance in the short run. Despite the APP purchases compressing spreads, we have, however, also had more volatile periods in the years since 2014.

At the same time, core sector covered bond spreads to the underlying sovereign debt still trade at levels that certainly compensate for the regulatory disadvantages vs sovereign bonds. They are thus an attractive investment for many bank treasury investors or asset managers running external LCR funds even though QE has certainly deteriorated liquidity in covered bonds at a much faster pace than it has in sovereign bond markets. Based on this liquidity argument a higher spread pickup is thus justified than was the case in the past. However, different issuance dynamics with covered bond supply being a rather scarce commodity while the opposite is true for sovereign and SSA markets should be supportive for covered bond valuations vs sovereign debt in the coming months.

2.5 USD, GBP & DOMESTIC CURRENCIES DENOMINATED COVERED BOND MARKETS

By Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group and Matthias Melms, formerly Nord/LB

USD, GBP DENOMINATED COVERED BOND MARKETS

The new issue volumes in the USD- and GBP-denominated covered bonds have revived over the last few years underlining the strategic importance of the non-EUR denominated covered bond markets. They represent attractive diversification opportunities from an issuer perspective, both in terms of investor base as well as in terms of different dynamics compared to the EUR-denominated market as detailed below. From an investor perspective, USD and GBP denominated covered bonds may also offer cross-currency arbitrage opportunities depending on the swap costs which are worth monitoring.

While the Euro remains the major funding currency of covered bond issuers, many issuers prefer a broader currency mix. The actual decision to use a certain currency for funding depends on various factors:

> **Relative value considerations**: Relative value considerations play an important role in the decision for a certain currency. Particularly, non-Eurozone issuers tend to be more opportunistic in their choice of funding currency.

> **Strong domestic currency market**: The Scandinavian issuers benefit from a strong domestic currency market, reducing their reliance on the Euro for funding. The same is true for the UK banks, although the covered bond investor base in the UK is much smaller than those in Denmark, Sweden or Norway.

> **Investor diversification**: Besides the lowering of the funding costs, investor diversification is another important driver of non-EUR issuance as there is only limited overlap between the investors across the various currencies. In particular, banks from Australia, Canada, Norway and Sweden have been active issuers in the USD and GBP space in order to broaden their investor base. The USD market is also a more natural market for non-European issuers such as the new Asian issuers as many USD investors already have credit lines in place for these issuers.

> **Less EUR issuance**: Another advantage of non-Euro issuance is that it reduces the supply in Euros, which should support the valuations of the outstanding Euro benchmarks of the particular issuer and might free up credit lines at investors.

> **Impact of the CBPP3**: The covered bond purchase programme of the ECB has resulted in artificially low yields of CBPP3-eligible covered bonds, making it less attractive for Eurozone issuers to tap the Sterling and USD market. This has resulted in a disproportional high primary market share of non-Eurozone issuers in these two currencies.

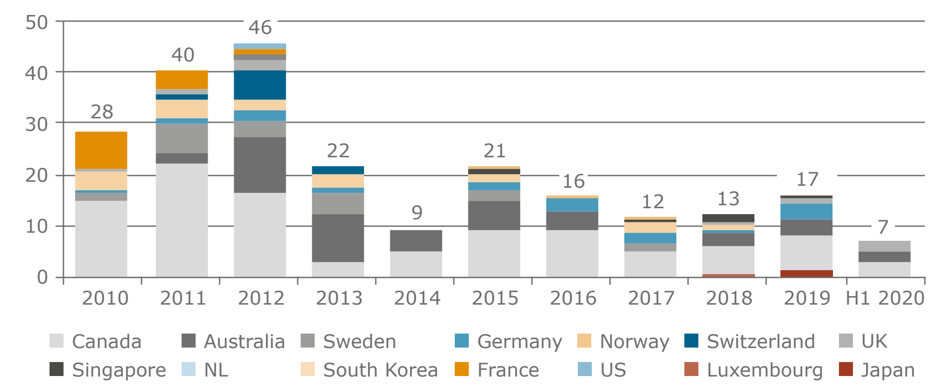
> **Bank of England’s measures**: The Funding for Lending Scheme (FLS) of the Bank of England triggered literally a stop in covered bond issuance by UK banks in 2013. The impact of the Term Funding Scheme (TFS) in contrast was less detrimental and Sterling-denominated UK covered bond supply has been strong since 2017. However, it seems that the new Term Funding Scheme with additional incentives for SMEs (TFSME) which was introduced in mid-April 2020 has a more dampening impact on the Sterling covered bond issuance by UK issuers.

> **Natural hedging**: Issuance in non-domestic currencies can be used to hedge foreign-currency denominated assets in the cover pool without the need to swap currency risks. Several German issuers, for instance, have USD or GBP-denominated cover assets on their balance sheets and could hedge these exposures by issuing currency-matched covered bonds.

USD-DENOMINATED COVERED BOND ISSUANCE

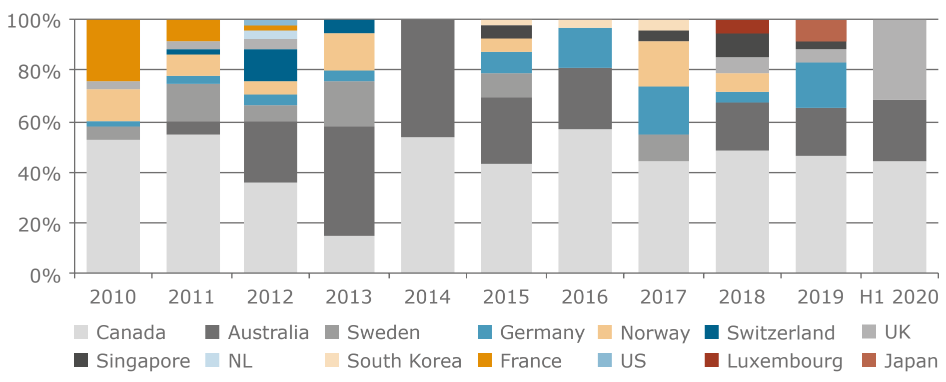
After a quiet 2014, the USD-denominated covered bond market revived in the following years with gross issuance more than doubling. This trend was driven largely by a favourable cross currency basis and, as such, was visible in other sectors like supranationals and agencies. In 2017 and 2018 the USD denominated covered bond issuance has stabilised at USD12-13bn before increasing to USD17bn in 2019. In the first six months of 2020, USD supply amounted to USD7bn.

> FIGURE 1: PUBLICLY PLACED USD-DENOMINATED COVERED BOND ISSUANCE



Source: Bloomberg, HSBC

> FIGURE 2: USD-DENOMINATED BENCHMARK COVERED BONDS SUPPLY BY COUNTRY



Source: Bloomberg, HSBC

Several features of the USD covered bond market differentiate it from its EUR counterpart:

> **High ratings**: USD issuance is dominated by Canada, Australia, Sweden and Norway, which happen to have among the highest covered bond ratings. The USD covered bond market tends to be therefore a **'AAA' market**. With few exceptions, only the strongest European banks have entered the market.

> **Larger but shorter new issues**: USD covered bonds are typically large in terms of outstanding volumes, with few bonds being issued below the USD 1bn threshold. This is in contrast to the EUR market, were sub-EUR 1bn bonds have become more common over the last few years. Moreover, the maturity of USD covered bonds tends to be shorter than EUR covered bonds as the USD investors have a preference for shorter maturities. The ultra-low yield environment in the Eurozone with large parts of the covered bond spectrum being in negative yield territory has certainly also contributed to this trend.

> **Issuance format**: USD covered bonds are mainly issued in the 144a format which means they can only be sold to Qualified Institutional Buyers under specific restrictions. Some covered bonds – in particular from Eurozone issuers – are issued under Reg S rather than the 144a format, which means that they can only be sold to offshore investors.

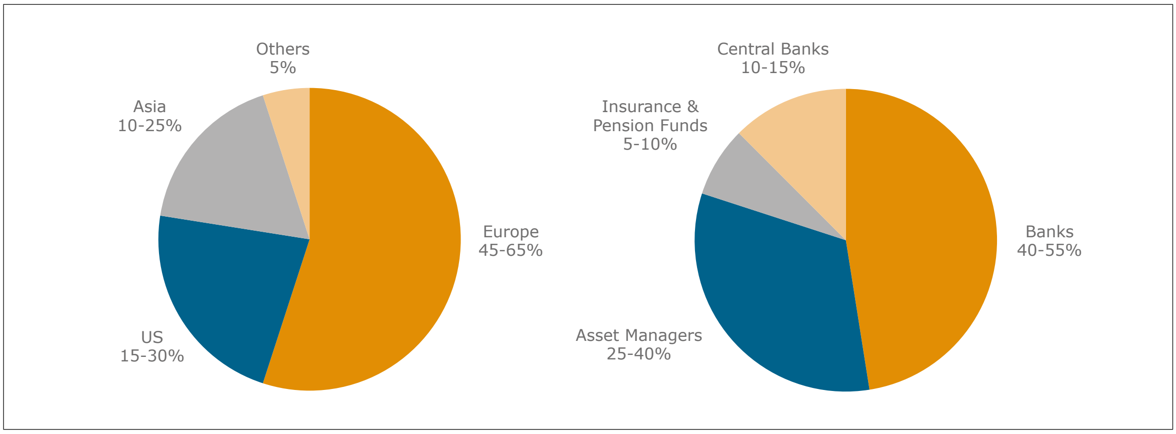
> **Variations in regulatory treatment**: Covered bonds receive different regulatory treatment around the world, depending on the issuer's country of origin, the currencies and the rating. In the case of the Liquidity Coverage Ratio (LCR), covered bonds – including USD-denominated – benefit from a preferential treatment under the EU implementation of Basel's LCR as they qualify as Level 1, 2A and 2B assets. In contrast, covered bonds do not qualify for the LCR in the US and are restricted to Level 2A assets, in line with Basel's recommendation, in other countries such as Canada, Australia or Singapore. In terms of repo eligibility with central banks, the ECB has the broadest repo eligibility criteria for covered bonds, allowing the use of investment grade covered bonds from the European Economic Area and the G10 countries, followed by the Bank of England which is more restrictive than the ECB. This is in stark contrast to the US Fed which currently only accepts AAA-rated German Pfandbriefe. The central banks in Canada and Australia are also quite strict, focusing on their domestic covered bond market and currency.

USD INVESTOR DEMAND

Over the last few years, the importance of European investors has increased, overtaking the US investors. On average, European investors account for 45-65% of the order books, while the share of US investors is in the range of 15-30%. However, the allocation data for the US often includes offshore US investors. Asian investors, mainly sovereign wealth funds and central banks, also play an important role, making up 10-25% of the order books.

> FIGURE 3: INVESTOR PARTICIPATION BY GEOGRAPHY

> FIGURE 4: INVESTOR PARTICIPATION BY TYPE



Source: Publicly available deal allocation statistics, HSBC (data as of end-July 2020)

GBP-DENOMINATED COVERED BOND MARKET

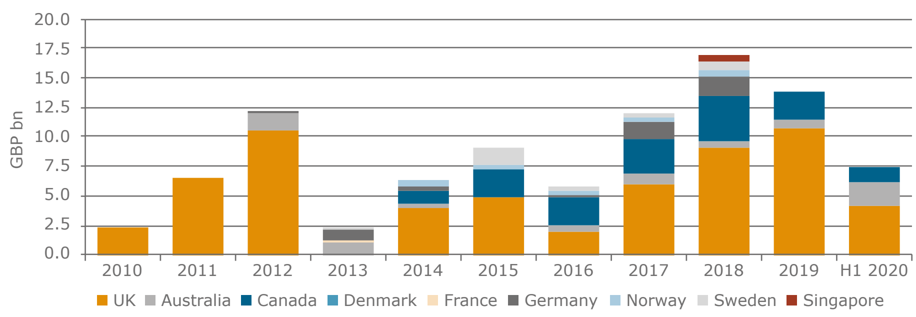
The GBP-denominated covered bond market is a small fraction of the total covered bond universe. However, with the entrance of new issuers from non-domestic jurisdictions such as Canada and Australia, the issuance size and volume is set to increase further in the coming years.

The primary market activity in this segment has been quite volatile over the last ten years. Back in 2008 (c. GBP 85bn) and 2009 (c. GBP 10bn) large volumes of Sterling-denominated covered bonds were issued that were not publicly placed in the market. Most of these issues were retained by the issuers at a time when the Bank of England provided funds under the Special Liquidity Scheme in response to the financial crisis. These retained covered bonds were used as collateral.

In 2012, publicly placed covered bond supply in Pound Sterling reached a record volume of about GBP 12bn, twice the volume of the previous year. The increase was driven by strong demand from insurance companies at the long end of the curve, as well as money market funds and bank treasuries at the short end. After the record volumes of 2012, the GBP covered bond primary market activity in 2013 dropped significantly due to the Funding for Lending Scheme (FLS) of the Bank of England, which triggered a complete halt of GBP covered bond supply by UK banks.

Since then the GBP covered bond market has recovered as both issuance by UK banks and non-Eurozone banks picked up. In 2018, Sterling covered bond supply reached a new record high of GBP 17bn and in 2019, almost GBP 14bn have been issued. Interestingly, the Term Funding Scheme (TFS) of the Bank of England has not negatively impacted the issuance from UK houses. However, GBP denominated covered bond issuance is currently less attractive for Eurozone issuers as the largest buyer, the ECB, is not buying GBP-denominated covered bonds under the third covered bond purchase programme (CBPP3) even if the bonds are issued by Eurozone banks. Thus, the current GBP issuance levels achievable for Eurozone issuers usually cannot compete with the heavily distorted prices of EUR-denominated CBPP3-eligible covered bonds.

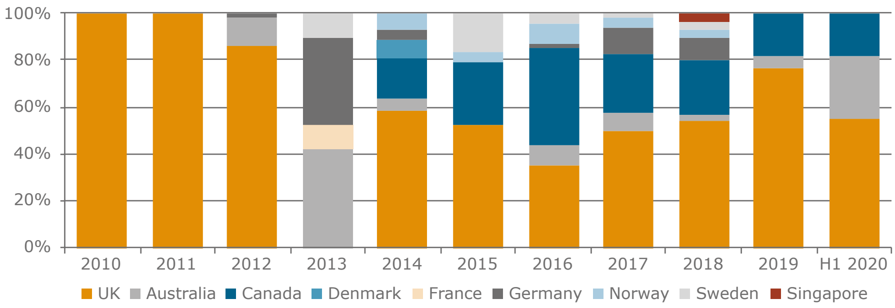
> Figure 5: Publicly placed GBP-denominated covered bond issuance



Source: Bloomberg, HSBC

The breakdown by country shows that up until 2012 the GBP-denominated covered bond market has traditionally been dominated by the UK-based issuers. However, over the past few years, non-domestic issuers from Australia, Germany, Scandinavia and Canada have also opted to issue in Sterling. As mentioned above, since 2017, we have seen again a strong rise in UK issuance but we think that the TFSME introduce in mid-April 2020 by the Bank of England will have a dampening impact on the supply volumes.

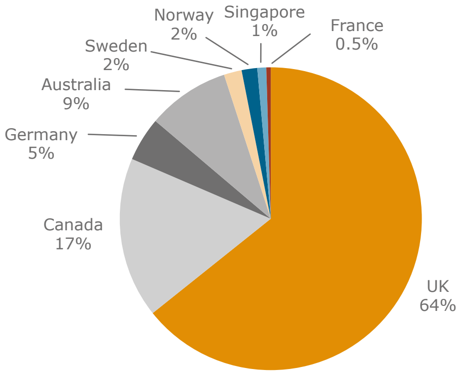
> Figure 6: GBP-denominated benchmark covered bonds supply by country



Source: Bloomberg, HSBC

The total outstanding volume of publicly placed Sterling covered bonds currently exceeds the GBP 60bn mark. Including non-publicly placed deals, the total outstanding volume actually peaked in 2009, following high issuance volumes of retained covered bonds at the height of the financial crisis, of which large parts have subsequently been redeemed or matured. However, the last few years with relative strong issue activity has led to a considerable increase in the outstanding volume.

> Figure 7: Outstanding volume of public deals by country

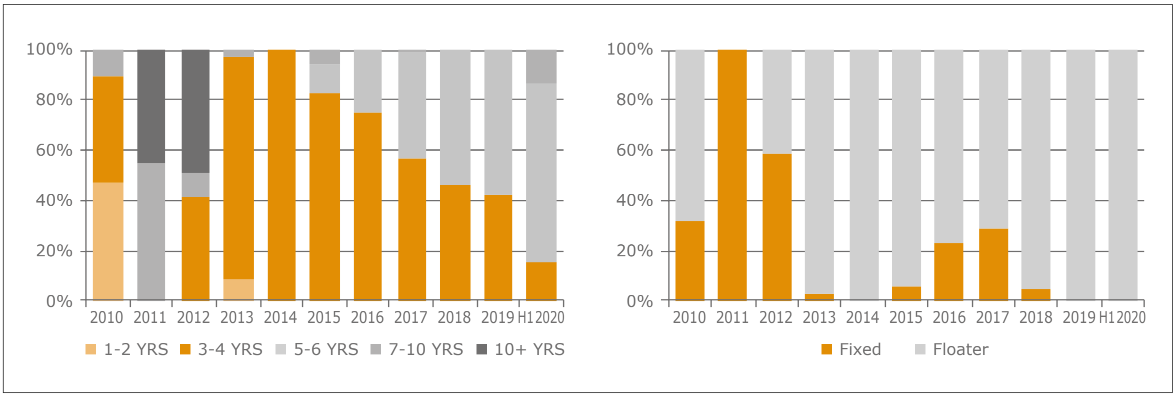


Source: HSBC, Bloomberg, (data as of end-July 2020)

The figures below show the issuance patterns in the Sterling covered bond segment since 2010. Between 2012 and 2016 more than 80% of the deals had short maturities. However, over the last four years, the share of medium-term covered bonds has increased. In terms of coupons, floating-rate notes continue to be the preferred format.

> Figure 8: Maturity breakdown of new issuance (public placements only)

> Figure 9: Breakdown between fixed and floating rate coupons (public placements only)



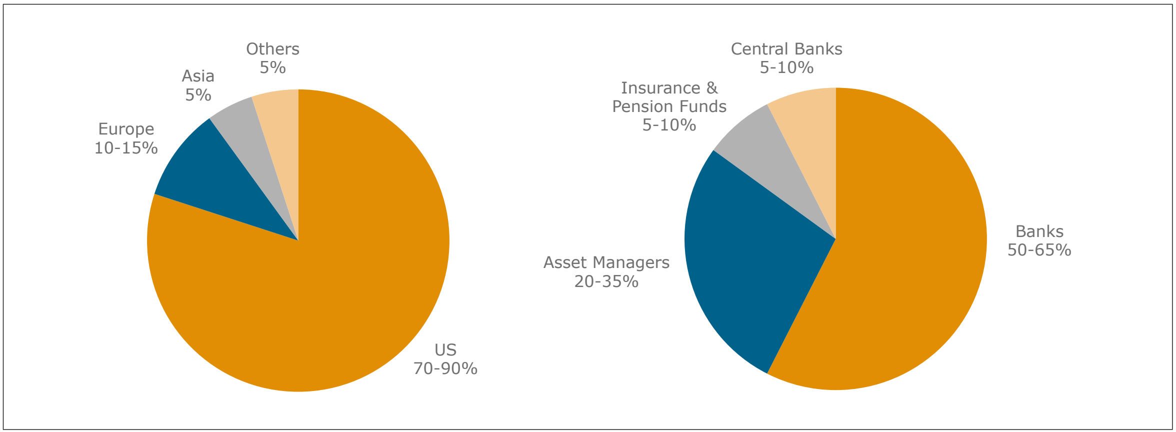
Source: Bloomberg, HSBC

GBP INVESTOR DEMAND

Investors in Sterling-denominated covered bonds are largely based in the UK. Based on the deal allocation statistics of primary market transactions over the last few years about 70 to 90% of the deals have been placed with UK investors with the remainder spread almost equally across Europe and overseas. The breakdown of investor base by type varies considerably between floaters and fixed-coupon bonds. While asset managers have a large share in both, banks have bought less of fixed rate paper but more than half of the floating rate notes (FRN). Insurance companies and pension funds account for just around a third of fixed rate covered bonds but have a significantly lower participation level in FRNs. The central banks' share in recent years has been slightly above the 10% mark.

> Figure 10: Investor participation by geography

> Figure 11: Investor participation by type (FRN only)



Source: Publicly available deal allocation statistics, HSBC (data as of end-July 2020)

MARKET OUTLOOK FOR USD AND GBP ISSUANCE

Covered bond issuance in USD and GBP should continue to play an important role over the coming years. As we have seen in the past, relative value consideration by the issuer and particularly cross-currency basis swap movements are important drivers of non-EUR covered bond issuance. However, the fact that the ECB has resumed its net purchases in November 2019 means it is less attractive for Eurozone issuers to issue in non-EUR currencies.

Sterling supply should continue to be driven primarily by domestic issuers. Though, the new Term Funding Scheme (TFSME) of the Bank of England could have a negative impact on the supply volumes from UK issuers. Non-domestic banks tend to be more opportunistic and focus on the cross-currency basis swap development. In light of Brexit, volatility in the sterling market could rise again, dampening GBP supply.

In the USD market, we expect Canadian and Scandinavian issuers to remain the most active players. Moreover, the covered bond issuers from Singapore, Korea and Japan are also likely to focus on USD-denominated issuance.

Domestic currencies – more than a niche

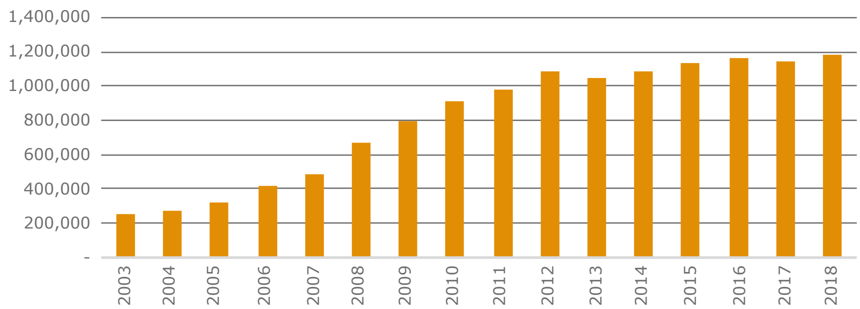
Although the Euro dominates the market for worldwide outstanding covered bond issues with around 65% of the outstanding volume of all covered bonds, domestic currency covered bonds account for a substantial share (around 30%) of all outstanding bonds. Domestic currency in this regard refers to the issuer's home currency. For example, if a bank in Denmark issues a covered bond denominated in DKK, this is classified as "domestic currencies"; issues denominated in EUR are classified as "EUR"; for covered bonds denominated in another currency, the category "Other" is used. In order to ensure comparability between the individual currencies, all figures relating to "domestic currency" have been converted into EUR equivalents as at 31.12 of the respective year.

In total, we have collected data for 18 markets outside the Eurozone, which together represent an outstanding volume of EUR 1100bn. This corresponds to 43% of all outstanding covered bonds worldwide in 2018. In the markets outside the Eurozone, covered bonds denominated in the corresponding domestic currency dominate the outstanding volume with a share of 68% (EUR 732bn), ahead of covered bonds denominated in EUR with a share of 23% (EUR 249bn), while all other currencies, representing a share of 9% (EUR 100bn), are less significant.

There are clear differences in the size of the individual markets, ranging from Denmark, the world's largest covered bond market with an outstanding volume of EUR 406 bn, to Panama with EUR 10mn. After Denmark (EUR 369bn), Sweden (EUR 164bn) and Switzerland (EUR 111bn) are the markets with the highest outstanding volumes in local currency. In markets where the local currency is the dominant currency, the share of all outstanding covered bonds denominated in domestic currency is at least 75% (Sweden). Hence, in markets where covered bonds refi a share of at least 10% of residential mortgages (Denmark, Sweden, Switzerland, Czech Republic and Hungary) and the domestic currency is the dominant currency for outstanding covered bonds, we can speak of a developed domestic covered bond market.

A clear dominance of issues in domestic currency is also evident in the 2018 issues in the countries surveyed: EUR 189bn of the issuance volume of EUR 262bn were made in domestic currency, which corresponds to 72% of all issues, whereas Denmark (57%) and Sweden (25%) with combined EUR 155bn (Denmark: EUR 109bn; Sweden EUR 46bn) accounted of for the bulk. EUR-denominated issues accounted for 20% of the issuance volume (EUR 52bn), while issues denominated in a currency other than the home currency or the EUR only played a minor role with 7.9% (EUR 21bn).

> FIGURE 12: DEVELOPMENT OF OUTSTANDING VOLUME IN DOMESTIC CURRENCY



3.1 ARMENIA

By Eleonora Mkrtchyan, Central Bank of Armenia and Edmond Vardumyan, National Mortgage Company RCO

I. FRAMEWORK

Covered bonds are issued in Armenia according to the Law on Covered Mortgage Bonds adopted in 2008 and majorly reformed in 2018 with expert support from Kreditanstalt für Wiederaufbau (KfW).

The reforms were set to modernise the framework in line with international best practices. As such, European regulation and especially the French-German model have been considered.

The reform introduced a regulation of centralised covered bond issuance, tackling all the details on insolvency matters and legal relations among issuers.

The reform also updated and redefined the list of eligible assets for the pool, defining clearly the assets that can be used as substitutes and stating what can the maximum percentage of such assets be in the pool.

The reform aimed as well at clarifying asset valuation and revaluation processes. Importantly, it introduced rules for the case of a significant collateral decline in value. An earlier national reform on mortgage consumer protection has introduced early repayment rules for mortgage loans that permit yield maintenance indemnities and thus improves the matching of cover assets and liabilities.

The reform also establishes a public cover asset register and refines the functions of the cover pool controller.

Most importantly, the Covered Bond Reforms ensures the ring-fencing of assets in case of insolvency of the issuer (in centralised scenario, that of participants as well) by changing the Law on Bankruptcy of Banks, Credit Organisations, Investment Companies, Investment Fund Managers and Insurance Companies.

II. STRUCTURE OF THE ISSUER

The issuer can be either a bank or a credit organisation, regulated accordingly by Law on Banks of Republic of Armenia (RA) and Law on Credit Organisations of RA. Both types of institutions are regulated and supervised by the Central Bank of Armenia (CBA) and subject to license requirement and supervision, with capital requirement, liquidity requirement etc. in place.

There are two scenarios of covered bond issues: a standard one and a centralised one.

In the standard scenario the issuer of the covered bonds, an individual bank or credit organisation, uses its own assets to create a cover pool and issue the bonds.

In the centralised issuance scenario, the issuer may use other banks' or credit organisations' (called "participants") mortgage assets as collateral in order to create a cover pool and issue the covered bonds. The cover pool of a centralised issuer consists of refinancing loans to the participants. The law provides for asset segregation in case of participant's insolvency and thus the respective pool of mortgage loans backing the refinancing loans is moved from participant's balance sheet to that of the central issuer (or to another issuer's, including participant's as the case may be) without entering the insolvency process.

III. COVER ASSETS

Main assets

The eligible assets for covered assets pool are mortgages that comply with the following:

1) the real estate subject to mortgage is located on the territory of the RA, or the security of the mortgage is a right for construction of real estate on the territory of the RA,

2) the mortgage represents a first priority claim on the underlying asset,

3) the amount of the loan at the time of inclusion into the pool does not exceed 70% of the estimated market value of the collateral (real estate),

4) the mortgage contract includes an early repayment clause in accordance with new Law on Housing Mortgage Credit.

Substitute assets

Where cover assets are to be removed from the asset pool prior to full fulfilment of obligations on mortgage bonds on grounds listed below, the issuer will have the right to include substitute assets in the pool. However, those assets should not at any time exceed 10% of all the assets. The law clearly defines what those substitute assets can be:

1) Cash;

2) Bonds issued by or guaranteed for timely payment by the Republic of Armenia;

3) Other assets defined by normative acts of the Central Bank of Armenia.

Limitations

In any case the law provides for some limitations for derivative instruments which may be used in the asset pool.

Only the following derivatives may be used:

1) Derivatives that serve to reduce asset-liability management risks between cover assets and covered bonds issued;

2) Derivatives that do not require the cover pool estate to post maintenance margin and observe margin calls;

3) Derivatives that, upon insolvency of the issuer, exclude netting for the benefit of the derivative counterparty with other claims against the issuer or other derivatives in the cover;

4) Derivatives that are not terminated upon insolvency of the issuer.

Removing assets from the asset pool

The asset is removed from the asset pool when

> The asset is terminated (including early repayment of loan, amortisation etc.)

> The asset has been categorised as non-standard, doubtful or loss according to Armenian legislation.

> The asset does not meet the eligibility requirements of the law on covered bonds.

In this case the assets must be substituted by other eligible assets (main or substitute).

The assets may be removed from the registry without the obligation to substitute them by other assets in the follow cases:

> When the removal does not amount to breach of adequacy of cover requirement,

> the remaining cover assets comply with the requirement of the law on Covered Bonds.

IV. VALUATION AND LTV CRITERIA

Valuation and revaluation

The valuation of real estate is to be performed by a person who:

> is licensed for real estate valuation in accordance with Armenian legislation,

> has at least 2 years of experience,

> has not been involved in the process of loan origination,

> has a professional liability risk insurance for at least an amount equal to 5000 times minimum wage.

The CBA may introduce additional rules and methods for valuation of real estate for the purpose of including them into the cover assets pool.

Residential real estate has to be revaluated every three years and commercial real estate once a year. The asset has to be revaluated if the real estate market prices experience a substantial fall (i.e. more than 10%). Revaluation is to be performed by a licensed appraiser.

Loan to Value

The amount of the loan at the time of inclusion into the pool should not exceed 70% of the estimated market value of the collateral (real estate).

If the amount of a mortgage loan registered in the cover pool exceeds 85% of current mortgage lending value of collateral (real estate), the issuer may either post additional assets for the excess of 85% as additional collateral or reduce the loan amount funded by the cover to 85%. In case of posting additional assets, the cash flows derived from these assets do not accrue to the bondholders except in the case of the insolvency of the issuer.

V. ASSET – LIABILITY MANAGEMENT

A number of asset-liability management rules have been introduced to mitigate the associated risks and improve risk transparency.

The amount of outstanding liabilities on mortgage bonds must be backed by adequate cover:

1) the total nominal value of assets within cover pool must be at least equal to the total nominal value of mortgage bonds;
2) the receivable amounts on cover assets must be at least equal to the payable amounts against mortgage bonds;
3) the net present value of cover assets must at any moment exceed at least by 1% the net present value of all liabilities on mortgage bonds;

The CBA has determined a stress testing methodology for the issuers. For the stress test the yield curve is shifted upwards and downwards based on the volatility of interest rates for selected maturities, but not less than 2%. Stress test horizon is 25 days and the confidence level is set at 99%.

The bonds issued should be denominated in the currency in which the cover assets are denominated. The assets comprising a single asset pool should be denominated in the same currency.

The issuer of covered bonds is required to maintain a schedule of cash flows, both actual and expected, on the assets included in the cover pool, which, *inter alia*, includes information on early repayments and overdue

Payments, projections regarding future unanticipated payments. The cash flow information shown in the schedule must allow identifying assets from which those cash flows have been received.

The outstanding liabilities on covered bonds must be at any moment backed by adequate cover on a present value basis after stress-testing, and the expected duration gap, i.e. expected aggregate duration of assets minus expected aggregate duration of liabilities, must not be lower than 3 months to avoid negative maturity transformation risk.

VI. TRANSPARENCY

The registry

The CBA maintains the registry of the cover assets of the covered bond programme. The registry maintains information on all assets comprised in the cover pool, namely:

> for land and building or for the permission for construction – Cadastre number, the duration for the permission for construction, its number and date, land/building address, limitation on land use, if any;

- > for mortgage loans – loan agreement number and date, loan register code, loan ID, purpose of the loan, loan amount, loan currency, repayment schedule and maturity date, annual interest rate, secured asset (real estate) value, borrower's identification;
- > for covered refinancing loans – information as referred to in point above, in addition segregation rights for the benefit of central issuer in case of centralised issue;
- > for derivatives – type of derivatives, nominal amount for each contract type contract, intrinsic value of each derivatives type, market value/net present value of derivatives, as well as information on the transaction counterparty;
- > other information defined by the CBA normative legal acts.

All parties concerned may have access to information contained in the cover register on collateralisation of assets. Access to other information contained in the cover register is restricted to the Central Bank, to the Cover Pool controller, to the issuer and to the Mortgage Administrator.

Information constituting banking secrecy, contained in the cover register, can only be disclosed in the manner prescribed by law. The control of the registry is held by the controller of the pool. The controller must give his approval in order for the asset to be registered in the pool. Registration of any asset without such approval is void.

Information by the issuer

The issuer must prepare monthly statements on issuance of mortgage bonds, file them to the Central Bank and display them on its website.

Those statements must include information on loans in the asset pool and information on the real estate, which is the secured asset for those loans.

In the centralised issuance scenario, the monthly statements must in addition provide information on the refinancing loans.

Detailed requirements as to what monthly statements must contain are provided by law, including information on real estate collateral, about assets themselves, derivatives, liabilities, assets and liabilities management, and other information stipulated as obligatory by the CBA.

The participants must also provide loan-by-loan information on historic and scheduled cash flows as well as other information to the centralised issuer enabling it to fulfil its duties defined by law.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

1. Controller

The law provides for the notion of controller of the asset pool and his functions.

Functions

The controller's activity is aimed at protecting bondholder's rights and is obliged by law to act in the best interest of bondholders.

The controller ensures that the bonds are at all times covered adequately, the cover assets are at all times able to be identified and segregated in case of insolvency, checks the asset's compliance with eligibility requirements, analyses the real estate valuation reports and may demand that only a part of value of the real estate be included in the asset pool.

The controller is also responsible for informing the CBA about breaches made by the issuer.

The controller *inter alia* follows the real estate market prices and requires the issuer to revaluate the real estate comprised in asset pool when he notices a substantial fall (i.e. more than 10%).

Access to information

The law provides for controller's necessary access to information. For instance, the issuer is obliged to monthly provide the schedule of cash flows to the controller. The issuer is also obliged to form an expectation of the aggregate duration of assets and liabilities and report the expected aggregate duration gap to the Cover Pool controller. Concerning the requirement for expected aggregate duration of assets exceeding that of liabilities by 3 months, the issuer is obliged to report to the controller on a weekly minimum basis.

The controller may at any time check all the documents concerning the covered bonds and asset pool maintained by the issuer.

Upon the request by the controller the issuer is obliged to provide information on the payments made on loans, as well as any change concerning the assets that might be of interest for the bond-holders.

Controller requirements and appointment

Every issuer appoints a controller. The controller may control multiple asset pools of the same issuer.

The law provides for clear eligibility criteria for the controller, to insure the person is "*bona fide*" and that there is no conflict of interest.

The Central Bank is to establish the cover pool controller's evaluation procedure and professional adequacy criteria.

Supervision of controller

The controller is supervised by the Central Bank of the Republic of Armenia.

2. Central Bank supervision

The CBA is the mega-regulator of the financial sector in the Republic of Armenia, which means CBA is the authority for regulation and supervision of the whole financial sector. It is the authority that regulates and supervises all financial institutions, including banks and credit organisations.

The law on covered bonds includes special provisions empowering the Central Bank to supervise banks, credit organisations and controllers in the context of covered bond issuance.

The Central Bank may impose sanctions on issuers and/or its management if:

1) The information contained in the registry is incorrect or inconsistent;
2) The adequacy of cover assets or their eligibility requirements were violated;
3) norms, deadlines and public disclosure procedures on reports were violated, and/or the reports contained untrue or inconsistent information;
4) Issuer did not disclose information subject to disclosure by law on covered bonds;
5) Issuer failed to fulfil an assignment provided by the Central Bank in a manner established the law on covered bonds;
6) provisions of the law on covered bonds, other normative legal acts on its basis and internal statutory acts of Issuer were violated.

Upon discovering such violations, the CBA may impose the following sanctions:

1) warning and order (to cease the violation, to recover etc.),
2) fine (may not exceed 1% of the nominal capital of the issuer),
3) revocation of management's or controller's qualification certificate.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The law provides that the issuer may not dispose of the cover assets, except in cases of substituting assets in cases provided by the law. The controller controls that each of the assets can be identified at all times and ensure it can be segregated in case of insolvency of issuer (or a participant, in case of centralised issue).

The law on covered bonds provides that in case of insolvency or ceasing of license of the issuer, the Central bank appoints a mortgage administrator to manage the covered assets.

The administrator has to be duly qualified at the CBA. Moreover, it cannot be the same person as the appointed insolvency administrator or liquidator at the issuer.

The mortgage administrator has a fiduciary duty towards the bondholders and is obliged to act in their best interests.

From the moment of ceasing of the license or insolvency decision, the administrator must ensure that all the payment received in connection with covered assets are segregated from issuer's other assets and are paid to a special account opened for these purposes.

The administrator may cease the payments to bondholders or participants for up to three months. In the interests of bondholders, the Central Bank may extend this period for another three months.

In the centralised issuer case, the participant's insolvency case is also regulated. At the time of registration of the refinancing loan by the central issuer in the registry, the first-preference right to the segregated assets in case of participant's insolvency is registered as well. As soon as the participant is insolvent, those assets are segregated and may either be registered on central issuer's name or, by central issuer's consent to another issuer, including participant.

In case of the centralised issuer's insolvency, all the assets comprised in the asset pool are segregated/ring-fenced and the procedure describes above (including the appointment of a mortgage administrator) is followed.

The bondholders retain the claim towards the refinancing loans and have the first-preference rights for:

- refinancing loans included in the cover pool and any cash flow deriving from those loans,
- the mortgage loans that are in the participant's balance sheet and their underlying secured assets (real estate).

The assets included in the centralised issuer's cover pool and their cash flows may be disposed of solely to satisfy the claims of the bondholders. No other creditor of the centralised issuer will have any claims over the assets included in the cover pool and their cash flows until all the claims by bondholders are satisfied. The remaining assets, if any, are returned to the insolvency estate of the insolvent organisation for other creditors' claims.

The bondholders are paid on *pari passu* basis. If the assets comprised in the asset pool are not sufficient to satisfy the claims of bondholders, the latter become unsecured creditors for the purposes of insolvency proceedings for the remaining and unsatisfied part of their claims.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Armenia is not member of the European Union and is developing its own risk-weighting regime for covered bonds.

As the major reform has just recently been passed into the Parliament and is yet to enter into force soon, there is as of today no special regulation for the risk-weighting for covered bonds. Currently the risk weight for covered bonds corresponds to the standard rules: the assets get 100% risk-weight in case the assets are denominated in AMD and 150% risk-weight if they are denominated in foreign currency.

3.2 AUSTRALIA

By Chris Dalton and Robert Gallimore, Australian Securitisation Forum

I. FRAMEWORK

The legal framework is principally contractual, with a statutory overlay enshrined in the Australian Banking Act (Cth) 1959 (Banking Act). The Banking Act contains certain minimum requirements for a covered bond programme (which are discussed in greater detail below) including requirements as to the assets eligible for inclusion in the cover pool, the appointment of a cover pool monitor, the requisite qualifications for a cover pool monitor, minimum overcollateralisation requirements and a cap on issuance. The Banking Act also empowers the Australian bank regulator, the Australian Prudential Regulation Authority (APRA), with certain powers including the power to determine Prudential Standards in relation to covered bonds.

II. STRUCTURE OF THE ISSUER

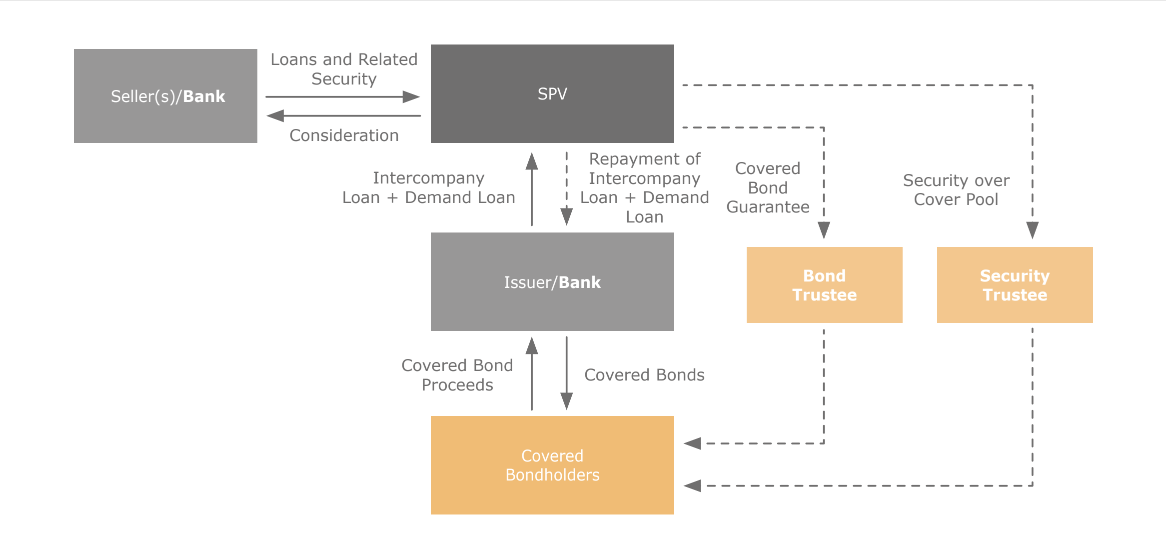
Australian banks, referred to under the Banking Act as "authorised deposit-taking institutions" or "ADIs", are the issuers of covered bonds; not SPVs or any other entity. However, a covered bond special purpose vehicle (the Covered Bond Guarantor) is established which holds the cover pool assets acquired by a true sale from the issuer. The Covered Bond Guarantor is in the form of a trust. It provides a guarantee over the issuer's obligations in respect of issued covered bonds, which guarantee is secured by the granting of a security interest over the cover pool assets in favour of a security trustee.

The guarantee will be called upon if an event of default in respect of the issuer were to occur. At such time, the Covered Bond Guarantor will be required to pay interest and principal on the covered bonds in accordance with the original payment schedule and payments under the covered bonds will not be accelerated. In addition, at such time, the bond trustee (on behalf of the covered bondholders) will make a claim, as an unsecured creditor, against the insolvency estate of the issuer bank. Any amount recovered against the insolvency estate of the issuer bank will be paid to the Covered Bond Guarantor to be held as additional collateral in the cover pool and to be used to make payments under the guarantee.

If an event of default were to occur in respect of the Covered Bond Guarantor, payments under the covered bonds would then be accelerated and become immediately due and payable.

Under the Banking Act, an issuer bank must not issue covered bonds if the value of the assets in the cover pool exceeds 8% of the issuer bank's assets in Australia. Further, if the issuer bank exceeds the 8% cap on issuance in breach of the Banking Act, it will also attract a deduction from its regulatory capital base equal to the value that exceeds 8%.

> Figure 1: Structure



Source: Australian Securitisation Forum

III. COVER ASSETS

Section 31[1] of the Banking Act sets out the assets that can be included in the cover pool. These are:

a. an at call deposit held with an ADI and convertible into cash within 2 business days;
b. a bank accepted bill or certificate of deposit that:
    1. matures within 100 days; and
    2. is eligible for repurchase transactions with the Reserve Bank; and
    3. was not issued by the ADI that issued the covered bonds secured by the assets in the cover pool;
c. a bond, note, debenture or other instrument issued or guaranteed by the Commonwealth, a State or a Territory;
d. a loan secured by a mortgage, charge or other security interest over residential property in Australia;
e. a loan secured by a mortgage, charge or other security interest over commercial property in Australia;
f. a mortgage insurance policy or other asset related to a loan covered by paragraph (d) or (e);
g. a contractual right relating to the holding or management of another asset in the cover pool;
h. a derivative held for one or more of the following purposes:
    1. to protect the value of another asset in the cover pool;
    2. to hedge risks in relation to another asset in the cover pool;
    3. to hedge risks in relation to liabilities secured by the assets in the cover pool.

The value of assets in the cover pool which are bank accepted bills or certificates of deposit as referred to in paragraph (b) above must not exceed 15% of the face value of the issued covered bonds.

At the time of publication, all Australian covered bond issuers have limited their programmes to residential mortgage collateral for their cover pools and no such programmes include commercial mortgages.

1 http://www.austlii.edu.au/au/legis/cth/consol_act/ba195972/s31.html.

IV. VALUATION AND LTV CRITERIA

Contractually, cover pool assets are subject to revaluation every month by way of indexation, which varies between programmes. Please refer to each issuer's individual website for details of the index used and the methodology applied.

LTV criteria – in addition to indexation, for the purposes of calculating the minimum overcollateralisation requirements contained in Section 31A[2] of the Banking Act as well as the monthly asset coverage testing, the following LTV requirements apply:

> Residential mortgages – if the mortgage loan exceeds 80% of the value of the mortgaged property securing that loan then the value of the loan is reduced by the amount of the excess; and

> Commercial mortgages – if the mortgage loan exceeds 60% of the value of the mortgaged property securing that loan then the value of the loan is reduced by the amount of the excess.

V. ASSET – LIABILITY MANAGEMENT

This is principally a matter for the credit rating agencies in relation to timely payment and their opinions on the value of the pool in liquidation scenarios. The issuers have regard to ECAI's methodologies and criteria to seek to ensure maintenance of AAA ratings.

VI. TRANSPARENCY

Since August 2012, an Australian Transparency Template has been in force, followed by each of the eight Australian covered bond issuers. It is in line with the guidelines of the ECBC's Covered Bond Label Initiative, and covers the following areas of each issuer's programme:

- Dates
- Ratings
- Parties
- Prepayments
- Pool Summary
- Mortgage Pool
- Compliance Tests
- Bond Issuance
- Asset Coverage Tests

Please refer to the Australian Securitisation Forum's covered bonds landing page[3] to access the template in full as well as web links to individual issuer's programmes.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Banking Act requires that a cover pool monitor be appointed in respect of a cover pool. The cover pool monitor must either be a registered auditor or hold an Australian financial services licence that covers the provision of financial services as the cover pool monitor. The cover pool monitor is appointed by the bank issuer but must be independent and must provide reports in respect of the cover pool to, amongst others,

APRA on request. The Banking Act requires the cover pool monitor to undertake specific functions, and report on such functions, biannually. Those functions involve assessing and reporting on the following:

> compliance with the 103% statutory minimum overcollateralisation requirement;

> compliance of the assets in the cover pool with the eligibility requirements under the Banking Act; and accuracy of cover pool asset register.

In addition, the cover pool monitor is also required contractually to check the arithmetic accuracy of the asset coverage tests on an annual basis.

As the regulator of banks in Australia, APRA has some general powers under the Banking Act with respect to bank issuers but not the Covered Bond Guarantor. For example, under section 11CA(2) of the Banking Act APRA may give a direction to a bank issuer not to transfer any amount or asset to a cover pool. However, APRA may

2 http://www6.austlii.edu.au/cgi-bin/viewdoc/au/legis/cth/consol_act/ba195972/s31a.html.

3 http://www.securitisation.com.au/cbprofile.

only give such directions in specific and limited circumstances including when APRA has reason to believe that the bank issuer is unable to meet its liabilities, there has been a material deterioration in the bank issuer's financial condition, the bank issuer is conducting its affairs in an improper or financially unsound way, the failure to issue a direction would materially prejudice the interests of the bank issuer's depositors, or the bank issuer is conducting its affairs in a way that may cause or promote instability of the Australian financial system.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Cover pool assets are sold by the bank issuer to the Covered Bond Guarantor, which is a special purpose trust. The sale is a true sale and will be enforceable against the issuer in the event of its insolvency. In addition, the Covered Bond Guarantor will grant a security interest over the cover pool assets in favour of a security trustee which will be recognised at law and will not be enforceable against the Covered Bond Guarantor in the event of its insolvency.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Not in compliance with UCITS because Australian issuers are not domiciled in member states of the EEA.

Risk weighting varies depending upon the jurisdiction concerned, pending standardised risk-weights from the EBA and the outcome of the current Basel consultation.

Covered bonds issued by Australian issuers are currently not eligible assets for repurchase agreements with the ECB or NCBs, or the BoE. There is however, a view that some Australian covered bonds may be eligible for inclusion in the calculation of LCR in some regulatory jurisdictions.

Covered bonds issued by Australian issuers and denominated in Australian dollars are repo eligible with the Reserve Bank of Australia subject to satisfying an assessment by the Reserve Bank of Australia and the issuer meeting disclosure requirements on an ongoing basis. Furthermore, covered bonds may be deemed to be Level III LCR assets on a case by case (under the Australian Prudential Regulation Authority's implementation of Basel III LCR guidelines) subject to satisfying an application for repurchase eligibility with the Reserve Bank of Australia (and which must be made separately for each covered bond issue).

There are no special Australian federal or state investment regulations regarding Australian covered bonds.

X. ADDITIONAL INFORMATION

The development of the Australian covered bond market largely came about due to the financial crisis and the effective seizure of non-sovereign global capital markets through this period. After the events of 2008 and 2009, the Australian Federal government recognised the need for increasing funding diversity within the Australian banking system. The Australian Federal government subsequently passed changes to the Banking Act, enabling banks to issue covered bonds in the form prescribed by the Banking Act. The first covered bond issuances from Australian banks occurred in late 2011. Issuance volumes subsequently increased dramatically through 2012 as issuers properly established their programmes in global bond markets.

In principle, Australian ADIs have three primary term funding options for their balance sheets: senior unsecured bonds, residential mortgage backed securitisation and covered bonds. In practice, the larger institutions have effective access to all three options while smaller institutions principally issue senior unsecured bonds and residential mortgage backed securities for term funding.

It is expected that Australian covered bond issuers will continue to use their issuance capacity sparingly; balancing maintaining a global market presence against the higher all-in funding costs associated with covered bonds and program management costs (in comparison to funding through senior unsecured bonds or residential mortgage backed securities), and the need to be able to respond quickly to deterioration in funding conditions. Feedback from a range of market participants suggests that this funding strategy may drive a scarcity premium in terms of the relative valuation of Australian covered bonds against other forms of Australian bank secured financing and other global covered bond markets.

Issuers: There are eight issuers of Australian covered bonds. These are Westpac Banking Corporation, National Australia Bank Limited, Australia and New Zealand Banking Group Limited, Commonwealth Bank of Australia, Suncorp Bank, Macquarie Bank, Bank of Queensland and ING Bank Australia. These eight Australian based banks have primarily issued soft-bullet covered bonds but in the case of Bank of Queensland, a conditional pass-through covered bond (CPTCB), being the first Australian ADI to issue a covered bond in that format. In August 2018, ING Bank Australia issued its first Australian dollar denominated covered bonds, comprising both a three-year floating rate note tranche and a five-year fixed rate note tranche. It is unlikely that the smaller Australian ADIs will be seeking to issue Australian covered bonds. The reason for this is due to the legislative asset encumbrance limit restriction of 8%. This is perceived by many issuers as compromising their ability to support a sufficiently broad market in a prospective programme.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/98/Australian_Covered_Bonds

3.3 AUSTRIA

By Alexa Molnar-Mezei, Erste Group Bank and Friedrich Jergitsch, Freshfields Bruckhaus Deringer

I. FRAMEWORK

Austria has three different frameworks under which covered bonds can be issued. These are:

1. Hypothekenbankgesetz: Mortgage Banking Act (Law of 7/13/1899) "Pfandbriefe"
2. Gesetz betreffend fundierte Bankschuldverschreibungen: Law on Secured Bank Bonds (Law of 12/27/1905) „FBS"
3. Pfandbriefgesetz: Mortgage Bond Act (Law of 12/21/1927) "Pfandbriefe"

Under these laws, banks can issue two kinds of covered bonds, Pfandbriefe which are issued under the Mortgage Banking and Mortgage Bond Act, and Fundierte Bankschuldverschreibungen (FBS) issued under the Law on Secured Bank Bonds.

Amendments of all three laws have been suggested by Austria's banks to the legislator with the aim of further harmonising/unifying Austrian Pfandbrief legislation in a single Act, and including, for example, an improved risk management system and standardised reporting requirements to achieve more transparency that offers investors a high level of security in terms of frequency and scope of the reports and ensure that investors receive clearly defined data relating to the cover assets. It is expected that these amendments will materialize as the EU's Covered Bond Directive will be implemented in 2021.

II. STRUCTURE OF THE ISSUER

All three laws provide that only duly authorised credit institutions, with a special license to such effect, may issue covered bonds.

The Mortgage Banking Act stipulates a specialist banking provision, and this would apply to any new mortgage bank. However, the only 2 issuers currently under the Mortgage Banking Act are universal banks into which formerly specialised issuers were merged.

The Mortgage Bond Act applies to public-sector "Landes-Hypothekenbanken", which used to be owned by the Austrian provinces and some of which have been privatised.

The Law on Secured Bank Bonds applies to all banks that have a license allowing them to issue covered bonds.

Under all frameworks, the issuer holds the cover assets on its balance sheet (unless it uses another bank's assets as cover, which is permitted under pooling rules contained in all three laws) and the assets are not transferred to a separate legal entity. This means that the covered bonds are an unconditional obligation of the issuer, rather than a direct claim (solely) on the cover assets. In the case of insolvency of the issuer, the cover assets will form a pool which is separate from the issuer's other assets and a special cover pool administrator will be appointed to manage the cover assets. The covered bond holders have a preferential claim on the cover assets.

III. COVER ASSETS

Eligible cover pool assets are loans secured by (predominantly) first-ranking mortgages and public-sector assets. ABS/MBS are not eligible. Pfandbriefe backed by mortgage loans are commonly referred to as "Hypothekenpfandbriefe", while Pfandbriefe backed by public sector assets are referred to as "öffentliche Pfandbriefe".

The Law on Secured Bank Bonds allows mixed cover pools consisting of mortgage loans and public-sector assets but in practice, issuers under that law form separate pools with mortgages and public-sector assets, too, each backing a separate class of covered bonds.

The geographical scope of eligible mortgage assets is restricted to EU / EEA countries and Switzerland.

Therefore, USA, Canada and Japan are not eligible. For eligible countries that do not recognise the bondholders' insolvency privilege, a 10% limit is in place. For "öffentliche Pfandbriefe", the geographic scope of assets is the same as for "Hypothekenpfandbriefe".

The limits for FBS are similar. In addition to mortgage loans and public-sector assets, FBS may also be backed by assets which, by law, are suitable for investment of a ward's assets ("Mündelgelder"). This includes certain local public bonds, or Austrian Pfandbriefe.

Derivative contracts are allowed in the cover pool if they are entered to hedge interest rate, currency and credit default risks. Derivatives are only allowed for hedging and there is no limit in place on the volume of derivatives in the cover pool.

So-called substitute cover assets are limited to 15% of the amount of covered bonds outstanding and may consist of cash, bank deposits and bonds from public issuers from EEA countries and Switzerland.

IV. VALUATION AND LTV CRITERIA

The Mortgage Bank Act stipulates conditions for property valuation and the value of mortgage lending. One condition is a 60% LTV (loan to value) limit for residential and commercial mortgages based on the so-called "mortgage lending value" (which is a conservatively assessed value).

For Mortgage Bond Act issuers, the 60% LTV limit is stipulated in the statutes of each issuer for historical reasons.

There is no explicit provision for property valuation for FBS but – to our knowledge – issuers mostly adhere to the 60% LTV limit stipulated in the Mortgage Bank Act.

In practice, monitoring of the property value is done by the issuer and regular audits of the cover register are undertaken. Valuation guidelines mostly follow the guidelines prepared by each issuer for solvency purposes, which are approved by the regulator.

V. ASSET – LIABILITY MANAGEMENT

All Austrian covered bond laws contain the matching principle whereby the total volume of assets in the cover pool must at least cover the total nominal amount of outstanding covered bonds, the interest payable on the outstanding covered bonds and potential running costs in case of insolvency of the issuer (expressed under the Mortgage Bank Act and Mortgage Bond Act as mandatory overcollateralisation of 2% which must be held in highly liquid substitute cover assets).

In addition, issuers may opt-in their statutes to maintain cover on a net present value basis, which is used by many of the international benchmark issuers. Issuers may also provide additional over collateral at their discretion, for instance in order to meet rating requirements and withstand stress tests.

The legislation also contains a simple maturity matching formula, limiting the issuance of bonds the maturity of which is considerably greater than the maturity of assets in the cover pool.

VI. TRANSPARENCY

The Austrian issuers organised in the Austrian Covered Bond Forum have set up a working group developing and analysing the CBIC Template Guidelines. As a result, Austrian issuers have developed a National Transparency Template –available on the Covered Bond Forum and of the Covered Bond Label websites – with quarterly updates – based on the CBIC European Transparency Standards. The cover pool reports can be found at:

The central website of Austrian Covered Bond Forum: http://www.pfandbriefforum.at/downloads.html

The National Transparency Template includes the following information:

> Programme, Issuer Senior and Covered Bond ratings;

> Overcollateralisation values (based on nominal and net present values);

> The total volume of Pfandbrief outstanding as well as the related cover pools in terms of nominal, net present and stressed net present value;
> The share of further cover assets;
> The maturity structure of the Pfandbrief and cover assets;
> Information on the size of the cover assets;
> Information on the mortgages by property type/type of use, region and state;
> Information on the claims against the public sector by state and type of issuer;
> Information on the mortgages registered liens by register country;
> Summary tables including LTV, currency, interest and maturity profile;
> Information on non-performing loans (the percentage of loans more than ninety days past due);
> Information on interest rates and currencies of cover assets and outstanding covered bonds.

The National Transparency Template covers the Guidelines according to the ECBC's Covered Bond Label Initiative that have been introduced in the Transparency Template over the last year by the Austrian Covered Bond Forum. Moreover, the items above disclose the information required in Article 129(7) of the Capital Requirements Regulation (CRR).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The cover pool is monitored by a trustee ("Treuhänder" or, in the case of the Law on Secured Bank Bonds, "Regierungskomissär"), who is appointed by the Minister of Finance. The trustee is liable according to the Austrian Civil Code. The trustee has to ensure that the prescribed cover for the covered bonds exists at all times and that the cover assets are recorded correctly in the cover register. Without his or her approval, no assets may be removed from the cover pool. Any disputes between the issuer and the trustee would be settled by the regulator.

If a concern exists that the rights of the covered bond holders are being infringed, the court must appoint a joint special representative of the covered bond creditors ("Kurator").

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The Cover Register ("Deckungsregister") in which all cover assets are entered, permits the identification of the cover assets. All mortgages, public-sector loans, substitute cover assets and derivative contracts which form part of the cover, must be registered in the cover register.

The issuers must inform the debtors (or, as the case may be, the counterparties) of the cover assets that their debt (or derivative contract) is made part of the cover pool. On that occasion the issuer must also notify the debtor that it is not allowed to discharge its debt through any set-off. An exemption from the general prohibition of set-off applies to derivative contracts, when the set-off (or netting) occurs in respect of receivables arising under one and the same Master Agreement (i.e. pertaining to the cover assets).

The legal effect of registration is that in the case of insolvency of the issuer, the assets which form part of the separate legal estate (the so-called "Sondervermögen") can be identified: All values contained in the register would be qualified as part of the separate legal estate.

While the bank carries out the daily administration of the cover register, it is the cover pool monitor who supervises the required cover und registration in the cover register.

Asset segregation

Cover assets may only be enforced upon only by the covered bond creditors (or counterparties of derivative contracts which form part of the cover pool).

If the issuer becomes insolvent, the cover assets are segregated from the remainder of its assets. The cover assets form what is known as ''Sondervermögen'' (pool of special assets) and are earmarked for the claims of the covered bond holders. Any voluntary overcollateralisation is also bankruptcy-remote. Only cover assets that are evidently not needed to satisfy the claims of the covered bond holders are passed back to the issuer's general insolvency estate.

The cover assets are managed by a special administrator, who is appointed by the bankruptcy court after consultation with the Austrian regulator (the FMA). The special administrator has the right to manage and dispose of the recorded assets.

Impact of insolvency proceedings on covered bonds and derivatives

Covered bonds are not automatically accelerated in case of insolvency of the issuer, but will be repaid at the time of their contractual maturity. The cover assets are administered in favour of the bond holders and any claims of the covered bond holders in respect of interest or principal repayments are to be paid (primarily) from the cover assets. Equally, in respect of derivatives which belong to the pool, there is no (immediate) legal consequence of insolvency and the counterparty claims as derivative transactions rank pari passu with the claims of the covered bond holders.

Preferential treatment of covered bond holders

Covered bond holders enjoy preferential treatment as the law stipulates the separation of the cover assets on the one hand and the insolvency estate on the other hand. To the extent that they are not satisfied from the cover assets, the covered bond holders may also participate in the issuer's general insolvency proceedings. Only if the cover assets do not suffice to satisfy the covered bond creditors, the covered bonds are accelerated.

Access to liquidity in case of insolvency

Once appointed, the special administrator for the cover pool has the duty to manage the cover pool in order to satisfy the claims of the covered bond holders. The administrator may, for example, sell assets in the cover pool or enter into a bridge loan in order to create liquidity to service the bonds in issue.

The administrator also has access to any voluntary overcollateralisation, which is considered bankruptcy-remote. Any surplus collateral may only be transferred back to the insolvency estate to the extent that it is evident that it will not be needed to cover the claims of the covered bond holders.

Sale and transfer of mortgage assets to other issuers

By virtue of his or her appointment, the special administrator has the right to manage and dispose of the cover assets. In particular, the special administrator must collect the cover assets according to their contractual maturity.

The special administrator is also entitled to sell the assets collectively to a separate credit institution. This institution must then take over all liabilities with regard to the covered bonds. In fact, one of the tasks of the special administrator is to find a suitable credit institution that will buy the assets collectively. If a sale is not feasible, the cover pool administrator has to continue the servicing of the cover pool and the outstanding covered bonds.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the CRR. Austrian Pfandbriefe, as well as Austrian covered bonds (FBS), fulfil the criteria of Article 52(4) of the UCITS Directive as well as those of Article 129 of the CRR[1]. This results in a 10% risk-weighting in Austria and other European jurisdictions where a 10% risk-weighting is allowed.

Austrian covered bonds are eligible in repo transactions with the National Central Bank.

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

Issuers: BAWAG P.S.K. Bank für Arbeit und Wirtschaft und Österreichische Postsparkasse AG, Erste Group Bank AG, Allgemeine Sparkasse Oberösterreich Bank, Bausparkasse der österreichischen Sparkassen Aktiengesellschaft, Volksbank Wien AG, Kommunalkredit Austria AG, Raiffeisen Bank International AG, Raiffeisenlandesbank Oberösterreich AG, Raiffeisenlandesbank Niederösterreich-Wien AG, Raiffeisen-Landesbank Steiermark AG, Raiffeisen-Landesbank Tirol AG, UniCredit Bank Austria AG, HYPO NOE Gruppe, HYPO NOE Landesbank, HYPO Tirol Bank AG, Vorarlberger Landes- und Hypothekenbank Aktiengesellschaft, HYPO Bank Burgenland AG, Austrian Anadi Bank AG, Hypo Oberösterreich, Hypo Salzburg, Hypo Steiermark, BKS Bank AG, Oberbank AG, BTV-Bank für Tirol und Vorarlberg AG, Sparkasse Schwaz.

ECBC Covered Bond Comparative Database:
https://www.ecbc.eu/framework/95/FBS_-_Fundierte_Bankschuldverschreibungen
and
https://www.ecbc.eu/framework/8/Pfandbriefe

Covered Bond Label **:** UniCredit Bank Austria AG (2 pools).

3.4 BELGIUM

By Dries Janssens, Belfius Bank

I. FRAMEWORK

On 3 August 2012, the Belgian Parliament adopted the legislation on covered bonds. This law provides a statutory framework for the issuance of covered bonds by Belgian credit institutions.

The legal basis for Belgian covered bonds is incorporated into the banking law, meaning the law of 25 April 2014 on the status and the supervision of credit institutions (the "Banking Law") that replaced the Act of 22 March 1993 on the status and the supervision of credit institutions. Since 11 October 2012 the legislation with respect to Belgian covered bonds has been supplemented by two Royal Decrees (a general Royal Decree on the issuance of covered bonds and a specific Royal Decree dedicated to the cover pool administrator) and several regulations (inter alia concerning the issuer reporting requirements).

The following gives an overview of the legislative framework for Belgian covered bonds:

> The Law of 3 August 2012 establishing a legal regime for Belgian covered bonds, which is implemented in the Law of 25 April 2014 on the status and supervision of credit institutions *(Wet van 25 april 2014 op het statuut van en het toezicht op kredietinstellingen/Loi du 25 avril 2014 relative au statut et au contrôle des établissements de crédit)* (the "**Banking Law**");

> The Law of 3 August 2012 on various measures to facilitate the mobilisation of claims in the financial sector (the "**Mobilisation Law**");

> The Royal Decree of 11 October 2012 on the issuance of Belgian covered bonds by Belgian credit institutions (the "**Covered Bond Royal Decree**");

> The Royal Decree of 11 October 2012 on the cover pool administrator in the context of the issuance of Belgian covered bonds by a Belgian credit institution (the "**Cover Pool Administrator Royal Decree**");

> The Regulation of the National Bank of Belgium ("NBB") concerning the practical modalities for the application of the Law of 3 August 2012 that establishes a legal regime for Belgian covered bonds dated 29 October 2012 (the "**NBB Covered Bonds Regulation**"); and

> The Regulation of the National Bank of Belgium addressed to the statutory auditors and the cover pool monitors of Belgian credit institutions with respect to their involvement in the context of the issuance of Belgian covered bonds in accordance with Chapter VIII of the Law of 22 March 1993 dated 29 October 2012 (the "**NBB Cover Pool Monitor Regulation**").

II. STRUCTURE OF THE ISSUER

Belgian covered bonds can be issued by universal credit institutions[1] established in Belgium. However such institutions first need to be licensed by the NBB as covered bond issuer (general authorisation as issuer) and also the covered bond program itself needs to get approval from the NBB (specific program license).

An extensive issuer license file detailing aspect like its strategy, solvency, risk management, asset encumbrance, IT systems, internal audit, etc. needs to be submitted. At program level the issuer has to detail the impact of the covered bond issuance on its overall liquidity, the quality of the cover assets and maturity matching of assets/liabilities in the program. The statutory auditor of the issuer has to report to the NBB on the organisational capacity of the credit institution to issue and follow up the covered bonds.

1 Existing credit institutions could decide to issue themselves or to issue from a newly created credit institution. The latter would typically but not necessarily be a subsidiary or an affiliate of the mother company.

The license might be conditional upon respecting issuance limits that the NBB on a case-by-case basis might decide on. If licensed, the issuer and the program(s) are added to specific lists that are available for consultation on NBB's website.

An indirect issuance limit on covered bonds has been integrated in the Covered Bond Royal Decree by limiting the amount of cover assets to 8% of the Belgian GAAP balance sheet.

At program level a distinction is made between Article 129 CRR[2]-compliant covered bonds, i.e. "Belgian pandbrieven/lettres de gage", and non-Article 129 CRR-compliant (but still UCITS 52(4) compliant) covered bonds, i.e. "Belgian covered bonds". The denomination of both terms is protected by law. These distinct types of covered bonds will appear on two separate lists. Consultation of the NBB's website will hence give an overview of:

> Belgian credit institutions issuing covered bonds

> Belgian pandbrieven programs and its specific issuances

However, the way that the Banking Law and the Royal Decree are stipulated, makes that in practice the Belgian credit institutions are only able to issue Article 129 CRR-compliant covered bonds. Therefore, in what follows we will only concentrate on the Belgian pandbrieven.

When a credit institution issues Belgian pandbrieven, its assets consist by operation of law of its general estate on the one hand and (one or more) separate, ringfenced "segregated estate(s)" ("patrimoine spécial") on the other hand (= balance sheet structure, no use of a special purpose vehicle).

The Belgian pandbrieven investors have a direct recourse to (i) the general estate of the issuing credit institution (i.e. repayment of the Belgian pandbrieven is an obligation of the issuing bank as a whole) and (ii) the segregated estate, that comprises the cover pool that is exclusively reserved for the Belgian pandbrieven investors under the specific program to which the segregated estate is joined and for the claims of other parties that are or can be identified in the issue conditions. Assets become part of the cover pool upon registration in a register held by the issuer for such purpose. As of that moment these assets form part of the segregated estate and are excluded from general bankruptcy clawback risk.

When insolvency proceedings are opened with regard to the issuing credit institution, by operation of law, the assets recorded in the segregated estate do not form part of the insolvent general estate and hence are not affected by the opening of the insolvency proceedings. Upon insolvency of the credit institution, Belgian pandbrieven investors fall back on the cover pool assets (= the segregated estate) for the timely payment of their bonds but at the same time they continue to have a claim against the insolvent general estate. Creditors that are not related to the segregated estate do not have any recourse to these cover pool assets.

III. COVER ASSETS

All assets and instruments that are legally segregated for the benefit of the Belgian pandbrieven investors in a segregated estate constitute the cover pool. The cover pool can be composed of assets that are part of any of the following categories:

> category 1: residential mortgage loans, and/or senior RMBS

> category 2: commercial mortgage loans, and/or senior CMBS

> category 3: exposure to the public sector, and/or senior public sector ABS

> category 4: exposure on financial institutions

> category 5: derivatives

2 Regulation 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms (the "Capital Requirements Regulation" or "CRR").

These five general categories are subject to further eligibility criteria:

> geographical scope: OECD, except for category 1 and 2 that are further restricted to EEA; for category 3 non-EU public sector exposure will get a zero valuation, unless specified otherwise.

> with respect to the MBS/ABS as mentioned in each of the first three categories: senior ABS/MBS are eligible provided that 90% of the underlying pool is directly eligible and is originated by a group related entity of the issuer of the Belgian pandbrieven. The senior ABS/MBS must qualify for credit quality step 1 (as set out in Article 251 CRR). The securitisation vehicle of the ABS/MBS must be located in the EU. At last these securitisation tranches only remain eligible as cover asset within the limits imposed by Article 129 CRR;

> for the mortgage loans mentioned in category 1 and 2: the loans need to be guaranteed by first lien (and subsequent lower ranking) mortgages on (residential or commercial) properties located in the EEA. Mortgage loans with properties under construction/in development can only be added to the cover pool if they do not represent more than 15% of all the mortgage loans taken up in the cover pool; Residential real estate is defined as real estate property that is destined for housing or for leasing as housing by the owner. Commercial real estate is real estate property that is primarily used for industrial or commercial purposes or for other professional activities such as offices or other premises intended for the exercise of a commercial or services activity;

> for category 3: exposure to the public sector can only be (i) exposure to or guaranteed or insured by central governments, central banks, public sector entities, regional governments and local authorities or (ii) exposure to or guaranteed or insured by multilateral development banks or international organisations that qualify as a minimum for a 0% risk weighting as set out in article 117 CRR;

> for category 5: derivatives, of which the counterparty has a low default risk (meaning a counterparty that qualifies for credit quality step 1 or step 2 as set out in Article 120 CRR), are only eligible if related to cover the interest rate/currency risk of the cover assets or Belgian pandbrieven. Moreover, a group related entity of the Belgian pandbrieven issuer is not eligible as derivative counterparty unless (i) it is a credit institution that benefits from a credit quality step 1 (as defined in Article 120 CRR) and forms part of the EEA, and (ii) it has a (unilateral) credit support annex (CSA) in place. Note that assets posted under the CSA would belong to the separate legal estate but are not considered as cover assets as described in this section III. Finally, the derivative contract needs to stipulate that suspension of payments or bankruptcy of the issuer does not constitute an event of default;

> for all of the categories: assets that are delinquent may not be added to the cover pool.

The cover pool can be composed of assets out of each of the five categories. But for each program that is set up (and accordingly for each segregated estate), assets out of one of the first three categories (so either residential mortgage loans, commercial mortgage loans or exposure to public sector) need to represent a value of at least 85% of the nominal amount of Belgian pandbrieven outstanding under such program. In practice this comes down to three types of Belgian pandbrieven programs that can be set up: residential mortgage covered bond program, commercial mortgage covered bond program or public covered bond program. How such value is determined, is explained in the following chapter.

IV. VALUATION AND LTV CRITERIA

The valuation rules of the cover assets determine the maximum amount of Belgian pandbrieven that can be issued. The value of the cover assets of each of the categories as mentioned in the section above will be determined as follows:

> category 1: minimum of [the outstanding loan amount, 80% of the value of the mortgaged property, the mortgage inscription amount[3]]

> category 2: minimum of [the outstanding loan amount, 60% of the value of the mortgaged property, the mortgage inscription amount]

> category 3: value is equal to the book value (nominal amount outstanding), except when the counterparties are not part of the EU in which case the value will be zero. There is however an exception to this zero valuation rule for non-EU counterparty exposure:

a) in case the non-EU counterparties qualify for credit quality step 1, or

b) in case the non-EU counterparties qualify for credit quality step 2 and do not exceed 20% of the nominal amount of Belgian pandbrieven issued in both cases the value is equal to the book value.

> category 4: no value can be given to this category unless:

a) the counterparty qualifies for credit quality step 1, or

b) in case the counterparty qualifies for a credit quality step 2, the maturity does not exceed 100 days as of the moment of registration in the cover pool in both cases the value is equal to the book value.

> category 5: no value is given to this category.

> Additional valuation rule applicable to any category: in case of delinquencies above 30 days, the value as determined per category is reduced by 50%. In case of default (> 90 days), no value can be given anymore.

When it comes to property valuation (applicable to cat 1 and cat 2), in general in Belgium every property is valued during the underwriting process based on either the notarial deed (that includes the property sale price) and/or in case of construction, the financial plan of the architects. It is rather rare in Belgium that the valuation is based on the report of an accredited third party appraiser.

In line with the NBB Covered Bonds Regulation, the market value will have to be justified in a clear and transparent manner on the basis of a document established by a person who is independent from the persons who are in charge of granting the relevant loans. An expert report is required for real estate which has a value of more than 3 million euro or 2% of the amount of the relevant covered bonds. Otherwise, the value of the real estate can be determined on the basis of the sales value as established in the notarial deed at the time of sale or the valuation report of the architect in the case of real estate in construction. The credit institution must apply a prudent revaluation procedure to determine the current value.

The value of the real estate has to be tested regularly. A more frequent control shall occur in case of significant changes to the market conditions. For the regular re-appraisal of the value of the real estate, customary methods and benchmarks (such as third party indices) may be used.

Note that assets can be part of the cover pool without necessarily having a value attached to it, like is the case for the derivatives category, but as well for example for exposure on financial institutions with a maturity above 100 days and a rating below AA-.

3 This can include Belgian mortgage mandates but upon the condition that there is a first lien mortgage inscription of at least 60% related to one and the same property.

V. ASSET-LIABILITY MANAGEMENT

Each issuer is required to perform several asset cover tests. The first one has been already mentioned in section III and requires that the value of either category 1, 2 or 3 is at least 85% of the nominal amount of Belgian pandbrieven (the "**85% asset coverage test**"). Secondly the value of the cover assets has to exceed the nominal amount of Belgian pandbrieven by 5% at all times (5% overcollateralisation) (the "**overcollateralisation test**"). Finally the sum of the interest, principal and other revenues has to be sufficiently high to cover for the sum of interests, principal and other costs due under/with regard to the Belgian pandbrieven, as well as any other obligation of the Belgian pandbrieven program (the "amortization test").

Next to the asset cover tests, a liquidity test has to be performed whereby the issuer calculates its maximum liquidity need within the next 180 days (the "**liquidity test**"). This amount has to be covered by (sufficient) liquid cover assets. In order to meet the test, a liquidity facility could be used to cover liquidity needs, as long as it is not provided by a group related entity of the issuer. Liquid assets are assets that (i) meet the cover asset eligibility criteria and (ii) qualify as liquid assets under the Regulation of the Banking Finance and Insurance Commission (CBFA) of 27 July 2010 on the liquidity of credit institutions, financial holdings, clearing institutions and institutions assimilated with clearing institutions.

If an issuing credit institution fails to meet the requirements of the liquidity test, it has 14 days to take the necessary redress measures to meet the relevant requirements. As long as an issuing credit institution has not taken the necessary redress measures, it is not allowed to issue new Belgian covered bonds.

The issuer is also required to manage and limit its interest and currency risk related to the program and will be able to sustain severe & averse interest/exchange rate movements. Although it is the issuer's sole discretion to determine how this will be managed (e.g. adding derivatives to the cover pool is a possibility (subject to eligibility criteria) but not an obligation), the policy needs to be documented in the license application.

At last it is important to highlight that the tests have to be met on a daily basis.

It is the task of the cover pool monitor to verify at least once a month if the issuer is compliant with all the tests.

Other safeguard mechanism that are foreseen:

- Issuer will have the possibility to retain its own Belgian pandbrieven for liquidity purposes.
- Commingling risk:
  - collections received from cover assets as of the date of bankruptcy will by law be excluded from the insolvent general estate.
  - registered collections received from the cover assets before the date of bankruptcy are part of the separate estate and legally protected via the right of 'revindication'. This is a special mechanism that has been created to protect cash held by the issuer for the account of the segregated estate. Pursuant to this mechanism, the ownership rights of the special estate as regards cash that cannot be identified in the general estate, will be transferred to unencumbered assets in the general estate that will be selected by taking into account criteria specified in the issue conditions.
- Set-off and claw back risk have been addressed by the Mobilisation Law.

VI. TRANSPARENCY

All market participants provide extensive data in their monthly reporting under a similar format.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

In its capacity as a Belgian credit institution licensed to issue Belgian pandbrieven, the issuer is subject to special supervision by the NBB as well as the supervision by a cover pool monitor.

The cover pool monitor:

> is chosen by the issuer from those persons appearing on the official list of certified/statutory auditors established by the NBB;

> shall be appointed subject to prior approval from the NBB;

> cannot be the certified/statutory auditor of the issuer.

The main tasks of a cover pool monitor consist of ensuring compliance with legal and regulatory requirements, e.g. are the cover assets duly recorded in the register, do the cover assets fulfil the eligibility criteria, is the value correctly registered, etc. The cover pool monitor is required to perform these tasks not only on an on-going basis, but also prior to the first issuance of Belgian pandbrieven by the credit institution. The on-going verifications must be done at least once a month.

Next to that the cover pool monitor has a reporting obligation towards the NBB on several aspects such as level of overcollateralisation and results of the different tests that have to be performed. The issuer is obliged to provide full cooperation to the cover pool monitor and shall give the cover pool monitor the right to review the register, loan documents, accounting book, or any other document. The NBB at its discretion can ask the cover pool monitor to perform other tasks and verifications.

If the NBB considers that a category of Belgian pandbrieven no longer fulfills the criteria or the issuer no longer fulfills its obligations, it can withdraw the license of the issuer and consequently withdraw the issuer from the list of Belgian covered bond issuers. Such a deletion from the list will be reported to the European Commission but does not have consequences for existing Belgian pandbrieven holders.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Assets need to be registered before they form part of the segregated estate. The law protects these registered assets (including all collateral and guarantees related to such assets) from a claim of the creditors of the in-solvent general estate and therefore they are not affected by the start of insolvency proceedings against the issuer. Also, any assets that would be posted via a CSA that is in place would be protected from insolvency proceedings as it is required to register these types of assets as well, although as explained before one cannot consider those as pure cover assets.

The cover assets once registered are exclusively and by operation of law reserved for the benefit of the Belgian pandbrieven investors and other creditors that might be linked to the program (e.g. a swap counterparty of which the derivative is included in the cover pool). These creditors also have a claim on the general estate. Only when all obligations at program level have been satisfied, will any remainder of assets of the separate estate return to the general estate of the issuer. Before such time, the bankruptcy receiver of the credit institution, in consultation with the NBB, could ask the restitution of cover assets if and when there is certainty that not all assets will be necessary to satisfy the obligations under the Belgian pandbrieven program.

Upon the initiation of bankruptcy proceedings or the instruction of an exceptional recovery measure by the competent supervisor with regard to the credit institution, or even before whenever the NBB considers it to be necessary (e.g. at the moment the license is withdrawn), a cover pool administrator ("gestionnaire de portefeuille") will be appointed that will take over the management of the Belgian pandbrieven program from the credit institution. The cover pool administrator (appointed by the NBB) is legally entrusted with all powers that are necessary for the management of the segregated estate, and can take all such actions (some in consultation with/upon approval of both the NBB and the representative of the noteholders) required to fulfill in a timely manner the obligations under the Belgian pandbrieven. Such actions could consist in (partial) sale of the underlying cover assets, taking out a loan, issuance of new bonds to use for ECB purposes or any other action that might be needed to fulfill the obligations. Acceleration of the Belgian pandbrieven is not possible, unless after the appointment of a cover pool administrator:

> noteholders would decide otherwise;

> (after consultation with the noteholders' representative and with the consent of the NBB) it is clear that further deterioration of the cover assets would lead to a situation whereby it is impossible to satisfy the obligations under the Belgian pandbrieven (i.e. in a situation of insolvency of the cover pool).

The bankruptcy receiver has a legal obligation to cooperate with the NBB and the cover pool administrator in order to enable them to manage the special estate in accordance with the law.

The Cover Pool Administrator Royal Decree specifies the tasks of the cover pool administrator. These include, amongst other things, to procure the payment of interest and principal on the Belgian covered bonds, collection of moneys from the cover assets (including any enforcement), entering into relevant hedging and liquidity transactions and carrying out of certain administrative tasks. The cover pool administrator will also have to test compliance with the cover tests and inform the NBB and the noteholders' representative thereof.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 CRR.[4] Belgian pandbrieven comply with the requirements of Article 52(4) UCITS and Article 129 CRR if and to the extent they are listed by the NBB as such.

Issuers: Belfius, BNP Paribas Fortis, KBC and ING Belgium.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/100/Belgium_Covered_Bonds

COVERED BOND LABEL: BNP Paribas Fortis NV/SA (1 pool).

4 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.5 BRAZIL

By ABECIP – The Brazilian Association of Real Estate Loans

I. LEGAL FRAMEWORK

On 19 January 2015, the *Letra Imobiliária Garantid*a ("LIG") – Brazilian Covered Bonds – was created by Law 13.097 (Articles 63 to 94), which defined their main characteristics and structure, with due regard for CBs best international practices. The LIG is a transferrable, freely tradable security issued directly and exclusively by financial institutions approved by the BCB and registered with a central depositary, also approved by the BCB.

This law delegated to the National Monetary Council ("CMN"), and the Central Bank of Brazil ("BCB"), the secondary regulations for LIGs. The CMN, in turn, edited on 29 August 2017 CMN Resolution 4.598, detailing the regulations for issuers and fiduciary agents of LIGs. As supplementary regulations, the Central Bank of Brazil edited Circulars 3.866 and 3.872, on December 2017, 3.891 on March 2018, and 3.895 and 3.896, on May 2018.

This law also attributed to the Brazilian Securities and Exchange Commission ("CVM") the regulations for any public offerings of LIGs in the local market. Such regulation is expected to be enacted in the 2nd half of 2020.

Brazilian financial institutions are regulated by the National Monetary Council in its capacity as the collegiate regulator of the National Financial System, and by the Central Bank of Brazil which also supervises them.

II. STRUCTURE OF THE ISSUER

In addition to the issuing institution's direct responsibility for their redemption, LIGs are collateralised by financial assets owned by the financial institution and which must be identified and segregated from its regular assets, thereby comprising segregated assets referred to as the Cover Pool, protected by a trust scheme for legal purposes called "Regime Fiduciário" (Fiduciary Regime). Although these remain under the management of the issuing institution, they must have their own controls and bookkeeping. The composition of the Cover Pool must comply with the specifications and limits stipulated in the law and regulations already mentioned, and their management by the issuing institution is subject to monitoring by a Fiduciary Agent approved by the monetary authority for that purpose, in addition to supervision by the Central Bank of Brazil of the issuing institution's role as the trustee.

III. COVER POOL

The Cover Pool can only be composed of:

- (i) Mortgage loans,
- (ii) National Treasury securities,
- (iii) derivatives instruments (for hedging purposes only) and
- (iv) cash and cash flows arising from the assets that are part of the Cover Pool.

i.1) Mortgage loans mean loans resulting from the following transactions:

- a) financing for the acquisition of residential or non-residential property,
- b) financing for the construction of residential or non-residential property,
- c) financing for legal entities to produce residential or non-residential property, and
- d) personal loans guaranteed by a mortgage or fiduciary lien on residential properties and insurance cover ("home equity").

i.2) However, mortgage loans can only be included in the Cover Pool if the following criteria are met:

a) performing credits only,

b) free of any type of encumbrance,

c) guaranteed by a first-degree mortgage or by a secured fiduciary lien on the property,

d) financing for construction, only if the property development is subject to a special regime which segregates a specific construction financing from all other liabilities of the developer, and

e) the credit risk rating of the transaction is not less than “B” (in a scale that goes from AA to H).

It should be emphasised that the Cover Pool should have an overcollateral of no less than 5% of the LIGs issued, while the mortgage loans should represent at least 80% of the total amount of the Cover Pool.

IV. VALUATION AND LTV CRITERIA

The issuer of the LIG may incorporate into the contract the revaluation and the loan-to-value limits criteria.

The LTV criteria for the property given as collateral for the credits linked to the real estate assets of the LIG shall abide by the following maximum percentages:

> Residential financing – 80% of the value of the property evaluation;

> Commercial financing – 60% of the value of the property evaluation;

> Home equity – 60% of the value of the property evaluation; and

> Financing for construction – 80% of the ratio between the restated nominal amount of the financing, and the property’s production cost.

The value of the guarantees in order to check the LTV will be verified, as mentioned above, by the issuer at the most every three years.

V. ASSET AND LIABILITY MANAGEMENT

The issuing institution must undertake stress testing capable of measuring the impact of the main risk factors to which the Cover Pool is exposed in relation to the sufficiency requirement.

To comply with this rule, at least the interest rate risk and, when applicable, the currency risk must be factored in.

The frequency of the stress testing and the holding period must be at least quarterly.

These stress tests must be carried out by the issuing institution using its own methodology based on consistent, documented and verifiable criteria, assumptions and procedures, especially bearing in mind:

> rates, indices, terms and other material information involving the nature and complexity of the Cover Pool and the LIGs guaranteed by it;

> individual effects of the risk factors, as well as the interaction between these factors;

> historical elements represented by historical series of the values of each risk factor, covering at least the five years preceding the date when the test is carried out;

> hypothetical elements that consider new information and the possibility of emerging risks not incorporated by the historical elements;

> effects arising from scenarios that simulate extreme market conditions on each risk factor, incorporating the correlation effects;

> forward interest rate structure as a risk factor, using at least the same vertexes defined when calculating the present values;

- > asymmetries, non-linearities, correlation breakages and other assumptions; and
- > counterparty risk involving derivative instruments, when applicable.

Regarding the liquidity requirement, the assets portfolio shall contain liquid assets in an amount equivalent to the LIG-related commitments secured by the Portfolio and falling due in the next 180 days.

VI. TRANSPARENCY

The Brazilian legislation requires a series of reports and records that must be kept up to date and monitored by the issuer, the LIG trustee and by the BCB, among which we would draw attention to:

(i) The issuing institution, in managing the Cover Pool, must:

- > make available on the internet documentation about the methodologies adopted for complying with the requisites of the Cover Pool;
- > disclose on a quarterly basis, in the notes to the financial statements, information showing the status of the Cover Pool, as well as the percentage ratio of the sum of the assets comprising the Cover Pool, to the institution's total assets;
- > send to the trustee, on the fifth business day of each month, the information referring to verification of compliance with the requisites of the Cover Pool;

(ii) The local rules also contain parameters which it is mandatory to insert in the instruments of issuance such as:

- > name of the issuing financial institution and the name of the holder;
- > sequential number, place and date of issuance;
- > face value; maturity date; and fixed or floating interest rate;
- > exchange rate variance adjustment clause, as the case may be;
- > manner, frequency and place of payment;
- > identification of the Cover Pool;
- > identification and amount of the mortgage loans and other assets comprising the Cover Pool;
- > identification of the trustee, indicating their obligations, responsibilities and remuneration, in addition to the situations, conditions and way in which they can be removed from office or substituted, and the other conditions of their position;
- > amortisation regime;
- > Cover Pool management transition plan;
- > rules for the general meetings of investors holding the LIG.

BCB's Circular No. 3.872 (of 12/2017) specifies more transparency requirements for LIG issuance such as: issuing institution must publish the Asset Portfolio Statement (DCA) on its website;

(i) the distribution of assets included in the asset portfolio by maturity bands, detailing the type of assets, updated nominal value and percentage participation in the total value of the asset portfolio;

(ii) the notional value of derivative instruments;

(iii) the distribution of residential and non-residential mortgage loans, with updated nominal value and percentage participation in the total value of the mortgage loans;

(iv) detailed report on the relevant acts or facts that have occurred or may represent a significant change in the situation of the asset portfolio and the LIGs guaranteed by it.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Cover Pool, along with the LIGs themselves, are registered with an entity approved by the Central Bank of Brazil under the fiduciary regime to which they were submitted, representing segregated assets linked to the LIGs they must guarantee. Its management, for which the issuing institution is responsible, and compliance with the legal requisites of eligibility and sufficiency of the underlying assets are monitored by the Fiduciary Agent which is specifically authorised by the Central Bank to engage in this role. In turn, the Fiduciary Agent's performance is supervised by the monetary authority, which accumulates the overall power for supervising the financial institutions.

The Brazilian Central Bank carries out assessment of the issuers as part of banking supervision activity, supervises the Fiduciary Agent's performance and has legal power to take appropriate measures.

VIII. SEGREGATION OF THE COVER POOL AND THE REMOTE CHANCE OF BANKRUPTCY OF THE COVERED BONDS

Under Brazilian legislation (Law 6.024 dated 13 March 1974) in the event of default or even financial imbalance, financial institutions face administrative intervention proceedings or extrajudicial liquidation. In the first case, the Central Bank appoints an administrator to run the institution which, if recovered, will see management returned to its owners. In the second case, where insolvency is detected, and recovery is considered unviable, the monetary authority appoints a liquidator to realise the assets and liabilities. The liquidator may file for the bankruptcy of the entity when its assets are insufficient to cover at least half of the amount of unsecured credits or, additionally, when there is hard evidence of bankruptcy fraud.

In the case of intervention, liquidation or even bankruptcy of the issuing institution, management of the asset portfolio is immediately transferred to the Fiduciary Agent, who will have full and wide-ranging powers to manage it, in addition to undertaking the redemption of the LIGs with the respective investors who will also become involved in this process through a general meeting specifically convened by the Fiduciary Agent.

The main legal effect of the fiduciary agent regime and the asset segregation that characterises it is the absolute ring-fencing in relation to the regular assets of the issuing financial institution. So, in the event of one of the situations described above, the trustee takes over management of the Cover Pool in order to redeem the LIGs, thereby ensuring that those assets will not be affected by the administrative intervention procedures or extrajudicial liquidation by the monetary authority, nor by the bankruptcy court proceedings, and are therefore exempted from competing with the issuing institution's other creditors, whether of an unsecured, fiscal or labour law nature.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The LIGs issued directly by financial institutions with registered offices in Brazil are neither CRR nor UCITS-compliant as both frameworks require the issuer to be based in the EU. Thus, LIGs do not benefit from the lower risk weighting for bank treasuries in the EU.

The LIGs are issued under specific Brazilian legislation which has not yet established specific prudential regulations for the purchase of LIGs by other financial institutions. However, the banking authority ("BCB") has indicated that it will abide by the international standards on this subject matter, as it has done with other risk issues.

Issuers: Banco Santander Brazil, Banco Inter, Itaú Unibanco and Banco Bradesco.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/116/Brazil_Covered_Bonds

3.6 BULGARIA

By Yolanda Hristova, UniCredit Bulbank AD and Franz Rudolf, UniCredit

I. FRAMEWORK

In Bulgaria, the legal basis for the issue of covered bonds is the Mortgage-backed Bonds Law issued by the 38th National Assembly on 27 September 2000, published in the State Gazette (*Darzhaven vestnik*) issue 83 of 10 October 2000[1].

II. STRUCTURE OF THE ISSUER

Pursuant to the Mortgage-backed Bonds Law, the mortgage-backed bonds shall be securities issued by banks on the basis of their loan portfolio and secured by one or more first in rank mortgages on real estate in favour of banks (mortgage loans). Only banks may issue bonds called mortgage-backed bonds.

The real estate under the previous paragraph shall be insured against destruction and shall be of the following type:

> Housing units, including leased out;

> Villas, seasonal and holiday housing;

> Commercial and administrative office spaces, hotels, restaurants and other similar real estate; and

> Industrial and warehousing premises.

The issuing bank shall adopt internal rules on conducting and documenting mortgage appraisals of real estate which shall comply with the requirements of Article 73, paragraph 5 of the Bulgarian Law on Credit Institutions.

Securities issued under procedures other than the one laid down by the Mortgage-backed Bonds Law may not be referred to with, or include in their appellation, the extension "mortgage-backed bond", or any combination of these words.

III. COVER ASSETS

The outstanding mortgage–backed bonds shall be covered by mortgage loans of the issuing bank (principal cover). To substitute loans from the principal cover that have been repaid in full or in part, the issuing bank may include the following of its assets in the cover of mortgage-backed bonds (substitution cover):

> Cash or funds on account with the Bulgarian National Bank (BNB) and/or commercial banks;

> Claims on the Government of the Republic of Bulgaria or the Bulgarian National Bank, and claims fully secured by them;

> Claims on governments or central banks of states as determined by the Bulgarian National Bank;

> Claims on international institutions as determined by the Bulgarian National Bank;

> Claims fully backed by government securities issued by the Government of the Republic of Bulgaria, the Bulgarian National Bank, the Governments, Central Banks or international institutions;

> Claims secured by gold; and

> Claims fully backed by bank deposits denominated in Bulgarian levs or in a foreign currency for which the BNB quotes daily a central exchange rate.

The substitution cover of mortgage-backed securities shall not exceed 30% of the total amount of liabilities of the issuing bank under that issue. Mortgage-backed Bonds cover from any issue (the sum total of the principal cover and the substitution cover) may not be less than the total amount of liabilities towards the principals of mortgage-backed bonds from that issue which are outstanding and in circulation outside the issuing bank.

1 Last amended with issue 106 of 2018.

The claims of the bondholders under mortgage-backed bonds from each issue shall be secured by a first pledge on the assets of the issuing bank included in the cover of that issue. The pledge is a subject of entrance in the Central Registers of Special Pledges, with the respective issue of mortgage-backed bonds being indicated as a pledge creditor.

The issuing bank shall request an entry and submit to the Central Register of Special Pledges all data required for the entry of the pledge within one month after executing a mortgage-backed bonds issue and shall update that data at least once every six months thereafter. The pledge shall remain in force until the full redemption of the liabilities of the issuing bank under the respective issue of mortgage-backed bonds without the need for any renewal. Deletion of the pledge entry shall be made upon the full redemption of the issuing bank's liabilities under the respective issue of mortgage-backed bonds on the basis of a document issued by the bank's auditors.

IV. VALUATION AND LTV CRITERIA

Valuation

Mortgage appraisals of property shall be performed by officers of the issuing bank or by physical persons designated by it having the relevant qualifications and experience.

For appraisals of the property the comparative method, the revenue method and the cost-to-make method shall be used for the purposes of the law.

The mortgage appraisal shall explicitly specify the method or combination of the above methods used with the relative weight of each method in the appraisal, as well as the sources of data used in the analysis and calculations.

Subsequent mortgage appraisals of property used as collateral on the loans recorded in the register of mortgage-backed bonds cover shall be made at least once every twelve months for loans which:

> Have outstanding liabilities exceeding 1% of the issuing bank's own funds; or

> Have not been consistently classified as standard risk exposures throughout that period.

LTV criteria

The LTV criteria (for the mortgage loans) are generally defined in the banks own lending policies depending on their risk appetite and other internal rules. No specific legal requirements are imposed by the local banking law, except for the Article 6 of the Law on Mortgage-backed Bonds (see below).

Article 6 of the Law on Mortgage-backed Bonds stipulates that mortgage loans shall be included into the calculation of the principal cover at the value of their outstanding principal but at no more than 80% of the mortgage appraisal value of the real estate as housing units, including leased ones, and at no more than 60% of the mortgage appraisal value of the real estate as villas, seasonal and holiday housing units used as collateral on mortgage loans.

Mortgage-backed bonds cover from any issue (the sum total of the principal cover and the substitution cover) may not be less than the total amount of liabilities towards the principals of mortgage-backed bonds from that issue which are outstanding and in circulation outside the issuing bank.

V. ASSET – LIABILITY MANAGEMENT

Substitution cover of mortgage-backed bonds from any issue may not exceed 30% of the total amount of liabilities of the issuing bank under that issue.

In making calculations under the previous paragraph for mortgage-backed bonds and assets constituting their cover denominated in different currencies, the official foreign exchange rate for the Bulgarian lev to the respective currency quoted by the Bulgarian National Bank of the day of the calculation shall apply.

A loan recorded in the register of the cover of mortgage-backed bonds from a particular issue may be repaid at any time by bonds of the same issue at their face value.

VI. TRANSPARENCY

Banks (the only eligible issuers of mortgage bonds) produce regular reporting to Banking Supervision authority – Bulgarian National Bank (BNB), and provide and publish financial information on a monthly basis. The public banks are reporting issuers and submit all required information to the regulated market – Bulgarian Stock Exchange (BSE), as well as to the Bulgarian Financial Supervision Commission (FSC). No additional specific measures in respect to the mortgage bonds are currently announced.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The cover pool is managed by the issuing bank which should have adopted the internal rules for maintaining it, the rules for access to the cover pool database and the regularity of the update of the cover.

Bulgarian National Bank carries out general assessment of the banks, including issued mortgage bonds, as part of general banking supervision.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

After the record of the assets in the register as a cover of mortgage-backed bonds of a particular issue, those specific assets may be used as collateral solely for the liabilities of the issuing bank on that issue. The issuing bank may not allow any encumbrances on its assets constituting the cover of outstanding mortgage-backed bonds. The issuing bank accounts assets recorded in the register of mortgage-backed bonds cover separately from the rest of its assets.

The issuing bank shall keep a public register of the cover of mortgage-backed bonds issued by it. A register is kept separately for each mortgage-backed bond issue.

In case of bankruptcy of the issuing bank, the assets recorded in the register of mortgage-backed bonds covers, as of the date of declaring the bank bankrupt, shall not be included in the bankruptcy estate. Proceeds from the liquidation of assets recorded in the register as a cover on a particular issue of mortgage-backed bonds are distributed among the bondholders from that issue in proportion to the rights under their bond holdings. Any funds remaining after settling the claims under mortgage-backed bonds from a particular issue is included in the bankruptcy estate.

The asset pools under the above mentioned paragraphs are managed by a holders' trustee of mortgage-backed bonds which is appointed by the bankruptcy court when it has been established that the bank has outstanding liabilities under mortgage-backed bonds. The trustee is managing the assets by individual mortgage-backed bonds issue.

The Trustee shall have the powers of an assignee in bankruptcy in respect of the asset pool described above, as well as in respect of any outstanding liabilities of the issuing bank under mortgage-backed bonds.

The Trustee shall manage the above mentioned assets separately for any mortgage-backed bond issue. The Trustee shall sell the above described assets under the procedure set forth in Articles 486-501 of the Civil Procedure Code and shall account any proceeds to an escrow account opened for each issue with commercial banks as determined by the Bulgarian National Bank. The Trustee shall publish in the State Gazette (*Darzhaven vestnik*) and in at least two national daily newspapers the place and time for the tender for the sale of assets under the procedures of previous sentence no later than one month prior to the date of the tender.

The bondholders of any issue of mortgage-backed bonds of a bank which has been declared bankrupt shall have the right to obligate the Trustee to sell loans included in the issue cover to a buyer specified by them and the Trustee shall follow precisely the decision of the Bondholders' General Meeting under the previous sentence.

The liabilities of the issuing bank under a mortgage-backed bonds issue shall be deemed repaid when the amount of outstanding principals of the sold loans becomes equal to the total amount of liabilities on principals and interest accrued on the bonds prior to the sales.

Under Article 66 paragraph 2 of the Law on the Recovery and Resolution of Credit Institutions and Investment Firms[2] it is foreseen that the resolution authority (the Bulgarian National Bank) shall not exercise its powers for a write-down or conversion in relation to the secured liabilities. These liabilities include mortgage-backed bonds within the meaning of the Law on Mortgage-Backed Bonds, covered bonds and liabilities in the form of financial instruments used for hedging purposes, which form an integral part of the coverage pool and which according to the applicable law are secured in a way similar to covered bonds, whether the liabilities are governed by the legislation of the Republic of Bulgaria, by the law of another Member State or by the law of a third country.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Risk weighting

Criteria for exposures secured by mortgages on immovable property are treated in Article 27 of Ordinance No. 7 of 24 April 2014 on organisation and risk management of banks[3], adopted by the Bulgarian National Bank ("Ordinance 7"). This Ordinance shall put into force the provisions of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

The Ordinance contains provisions related to the exercise of national discretions by the Republic of Bulgaria under Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms ("Regulation (EU) No 575/2013")[4]. Article 27(1) of Ordinance 7 states as regards the application of Article 124, paragraph 2 of Regulation (EU) No 575/2013:

1. The part of the exposure secured by mortgages on residential property that receives a risk weight of 35% shall not exceed 70% of the lower of the market and mortgage lending value of the property in question;
2. Part of the exposure secured by mortgages on commercial immovable property that receives a risk weight of 50% shall not exceed 50% of the lower of the market and mortgage lending value of the property in question.

For the purpose of updating the ratios mentioned in paragraph 1, banks shall submit data required under Article 101 of Regulation (EC) No 575/2013 and in Annex VI and Annex VII of the Implementing technical standard for supervisory reporting, taking into account the percentages under paragraph 1 above.

According to Article 29. (1) of Ordinance 7 which refers to Article 400, paragraph 2 of Regulation (EU) No 575/2013 in calculation of large exposures under Article 395 of Regulation (EU) No 575/2013, banks shall exempt the exposures in covered bonds falling within the scope of Article 129, paragraphs 1, 3 and 5 of Regulation (EU) No 575/2013.

2 Law on the Recovery and Resolution of Credit Institutions and Investment Firms, published in State Gazette (Darjaven Vestnik) issue 62 of 14 August 2015, latest amended, issue 37 of 7 May 2019; effective from the first day of application of the Decision of the European Central Bank on the close cooperation in accordance with Article 7 of Council Regulation (EU) No. 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions; transposes Directive 2014/59/EC of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/ EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council.

3 Published in the Darjaven Vestnik (State Gazette), Issue 40 of 13 May 2014, amended issue 40 of 17 May 2019; http://www.bnb.bg/bnbweb/groups/public/documents/bnb_law/regulations_risk_management_en.pdf.

4 Amending Regulation (EU) No 648/2012 (OJ, L 176/1 of 27 June 2013), including the transitional provisions under Part Ten, Title I of Regulation (EU) No 575/2013 and supplemented by Commission Delegated Regulation (EU) No 523/2014 of 12 March 2014.

Compliance with European Legislation

The Mortgage-backed Bonds Law is compliant with the requirements of Article 52(4) of Directive 2009/65/ EC (the UCITS Directive). The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR).[5]

X. ADDITIONAL INFORMATION

Minimum information requirements for issuance prospectuses

The draft prospectus for an issue of mortgage-backed bonds must contain data valid at the time of their preparation, such as:

> The Rules of the issuing bank concerning the contents, the entry and deletion procedures as well as the terms and procedures authorising access to the register and its internal rules of conducting and documenting mortgage appraisals;

> Data on mortgage loans held in the issuing bank's portfolio on the basis of which an issue is being made, including for each loan:

a) The size of the outstanding principal at the time of extending the loan and by the end of the most recent full quarter;

b) Loan life at the time of extending the loan and the remaining term to maturity;

c) Interest rates, fees and commissions on the loan;

d) Risk classification of the loan by the end of each calendar year from the time it was extended and by the end of the most recent full quarter;

e) Type of real estate mortgaged as collateral, their mortgage appraisal value and the ratio between the outstanding principal and the mortgage appraisal value at the time of extending the loan and by the end of the most recent full quarter;

> Characteristics of the mortgage loan portfolio on the basis of which the issue is made, including a distribution of loans by:

a) The size of the outstanding principal;

b) The residual term to the final repayment of the loan;

c) Interest rate level;

d) Their risk classification by the end of the most recent full quarter; and

e) The ratio between the outstanding principal and the most recent mortgage appraisal value of the real estate pledged as collateral.

In public offerings of mortgage-backed bonds the provisions of the Public Offering of Securities Act (POSA) and the Ordinances on its enactment shall apply. In non-public offerings of mortgage-backed bonds the provisions of Commerce Law shall apply.

5 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012. Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR):
https://hypo.org/ecbc/covered-bonds/.

Bulgarian mortgage bond market information

Since the adoption of the Bulgarian Law on Mortgage-backed Bonds in 2000 there were in total 29 mortgage bond issues in Bulgaria. The last mortgage bond issued was in 2014. The volume of issued mortgage-backed bonds totals EUR 273.3 mn originated by 11 issuing banks (currently 9 banks after the merger of MKB Unionbank with First Investment Bank and the merger of United Bulgarian Bank with Economic & Investment Bank). As of 31 December 2019, there is no mortgage bonds outstanding.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/72/Bulgarian_Covered_Bonds

3.7 CANADA

By Lily Shum, Canada Mortgage and Housing Corporation (CMHC)

I. FRAMEWORK

From 2007 until 2012, Canadian covered bonds were issued pursuant to a contractual framework. In June 2012, Canada implemented dedicated covered bond legislation with the amendment of the National Housing Act[1], making Canada Mortgage and Housing Corporation (CMHC) responsible for administering the legal framework for covered bonds. In December 2012, CMHC implemented the legal framework and published the Canadian Registered Covered Bond Program Guide (CMHC Guide) which prescribes detailed requirements for registered issuers and programmes.[2] The NHA and the CMHC Guide together form the legal framework for Canadian registered covered bonds. The legal framework provides statutory protection for covered bond investors, prescribes eligible issuers, programmes and cover pool collateral, and establishes a high standard of disclosure.

Since 2013, new covered bond issuance is restricted to "registered" covered bonds issued under the legal framework. To be able to issue covered bonds, issuers must submit applications to CMHC to obtain registered issuer and registered programme status. Issuers and programmes that meet the minimum requirements and are approved by CMHC are added to the Canadian Covered Bonds Registry maintained by CMHC. CMHC has the power to suspend a registered issuer's right to issue further registered covered bonds.

Under the legal framework, eligible collateral consists of Canadian residential mortgage loans that are not insured against borrower default. Mortgages which are insured against borrower default are not permitted to be held as collateral. The Government of Canada and CMHC do not provide any guarantees or backing for covered bond issues.

Beginning in August 2019 the Office of the Superintendent of Financial Institutions (OSFI), which regulates Canadian federally incorporated financial institutions (all of the current Canadian covered bond issuers except for one issuer regulated by the Quebec Autorité des marchés financiers (AMF)) required that total assets pledged for covered bonds must not, at any time, represent more than 5.5% of a deposit-taking institutuion's total on balance assets. In March 2020, in response to the evolving situation with Covid-19, OSFI permitted deposit taking institutions to temporarily exceed this limit in order to allow for the pledge of covered bonds as collateral to the Bank of Canada. During this time, total assets pledged for covered bonds must not exceed 10% of total assets; provided that assets pledged for market covered bonds remain subject to the 5.5% limit.

II. STRUCTURE OF THE ISSUER

Only banks, trust and loan companies, cooperative credit associations and insurance companies in Canada are eligible to register as issuers under the Canadian covered bonds legislative framework with the approval of CMHC. CMHC's approval is contingent upon fulfilment of minimum legal requirements set out in the CMHC Covered Bonds Guide. The framework requires that at least one rating agency provide current ratings at all times for at least one series or tranche of covered bonds outstanding. CMHC may suspend an issuer's right to issue "registered" covered bonds in case of a breach of legal requirements that is not remedied.

Canadian registered covered bonds are direct obligations of the issuer. In addition, in the event of issuer insolvency or default, investors have a claim over the pool of cover assets. The cover assets are held in a bankruptcy-remote special-purpose guarantor entity, which provides an irrevocable guarantee in respect of interest and principal payments due and payable under the covered bonds that would otherwise be unpaid by the respective issuer. In Canada, the guarantor may be set up as a Limited Liability Partnership (LLP) or a trust. To date, all registered programs have used an LLP. A bond trustee (which has to be arm's length and bankruptcy remote from the issuer) must be designated to represent the views and interests (and enforce the rights) of covered bond holders.

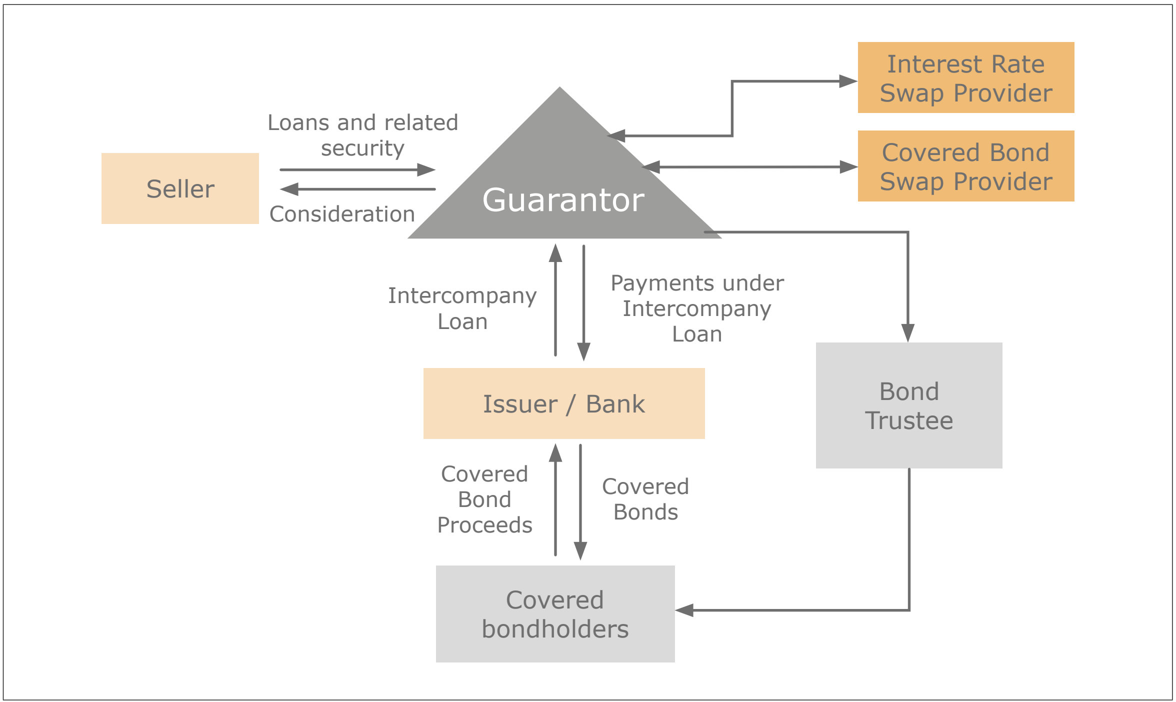
1 See National Housing Act R.S.C., 1985, c. N-11.

2 See CMHC's Canadian Registered Covered Bond Programs Guide (www.cmhc-schl.gc.ca).

Cover assets are segregated from the issuer through a contractual true sale of the mortgage loans to the guarantor entity. However, registered legal title to the mortgage collateral typically remains with the issuer or lender from which they are purchased by the guarantor until the earliest to occur of: (1) material breach or default by the issuer; (2) impending or actual issuer insolvency; (3) material breach or default by the servicer of eligible loans; or (4) any other event as prescribed in the issuer's transaction documents. Each registered issuer must engage an arm's length bankruptcy-remote custodian with appropriate systems and knowledge of handling mortgages. The issuer must provide the custodian with the details of eligible and substitute assets, and quarterly updates thereof.

An intercompany loan is provided by the issuer to the guarantor. The guarantor uses the proceeds from the intercompany loan to acquire all rights, title, interests in and certain records related to a specific pool of mortgage loans originated by the seller. The intercompany loan, denominated in Canadian dollars, is comprised of a guarantee loan and demand loan. The guarantee loan amount must be equal to the sum of the Canadian-dollar amount of all covered bonds outstanding and the overcollateralisation required for the Asset Coverage Test to be met at all times. The demand loan is a revolving credit facility equal to the difference between the intercompany loan and the guarantee loan. The Guarantor enters into swaps or collateral hedges to minimise interest rate and FX mismatches (see section V – Asset-Liability Management).

> Figure 1: General Covered Bond Structure



Source: CMHC

III. COVER ASSETS

Eligible assets for Canadian registered covered bonds are:

> Eligible loans, comprised of Canadian residential loans on properties with 1-4 units that:

- are not insured against borrower default;
- are first ranking mortgages;
- have a maximum 80% loan-to-value (LTV);

- are not in arrears at the time of transfer to the Guarantor and have had at least one payment made (of principal or interest) in accordance with the terms of the loan;
- are not the subject of any dispute, proceeding, set-off, counterclaim or defence;
- are not subject to a right of set-off by the borrower (and since July 2014, must include an express waiver of set-off); and
- are originated by the issuer or otherwise comply with its underwriting policies.

> Substitute assets up to the prescribed limit (10%) of total value of cover pool assets. They must be Canadian government bonds or other prescribed assets.

> Cash in an amount not exceeding the amount necessary to satisfy the guarantor entity's payment obligations for the next six months.

Where the mortgage securing an eligible loan also secures other indebtedness, such other indebtedness must (I) be owned by the same lender, (ii) be the subject of a release of security and (iii) have the benefit of a cross default provision with the eligible loan that is enforceable against the borrower. Only eligible loans may be transferred to the guarantor. Any loan that did not meet the eligibility requirements at the time of transfer must be repurchased by the issuer.

IV. VALUATION AND LTV CRITERIA

As noted above, the maximum LTV at the time of transfer of a loan to the guarantor is 80%. In Canada, prudential regulators require property values to be assessed during the underwriting process prior to making a mortgage loan. Property valuation is either performed by an accredited third-party property appraiser or an independently maintained valuation/risking model is used to assess the stated property value based on similar properties recently sold in the same area.

Under the covered bonds legal framework, loans are included in the cover pool coverage calculations up to the 80% LTV cap. Effective July 2014, property values must be indexed at least on a quarterly basis for the purposes of valuing the covered bond collateral. The indexation methodology for a covered bond programme is disclosed to investors in the covered bond programme prospectus and must be in line with any regulatory requirement.

V. ASSET – LIABILITY MANAGEMENT

Overcollateralisation and Coverage Tests

Within covered bond programmes, there is an inherent liquidity mismatch due to the bullet payment nature of the covered bonds and the cash flows generated from the cover assets. Following a default by the issuer, the principal cash flows generated from the cover assets may not be sufficient to ensure timely repayment of the outstanding covered bonds. To mitigate this credit and liquidity risk, the covered bond framework requires issuers to establish a contractual minimum and maximum level of overcollateralisation by adopting a minimum and maximum value for the Asset Percentage (AP) used to discount mortgage loans in the cover pool as part of the Asset Coverage Test (described below). The CMHC Guide also stipulates that cover pool collateral assets shall be at least 103% of the outstanding Canadian dollar equivalent nominal amount of covered bonds secured at all times. As with market practice in other jurisdictions, issuers tend to maintain an OC level higher than the regulatory minimum OC level required.

Typical of SPV structures, Canadian issuers must meet the following tests:

> Asset Coverage Test (ACT): Conducted on a monthly basis, the ACT ensures that sufficient assets are available to cover the outstanding amount of covered bonds plus a level of OC. An asset monitor also tests the accuracy of the ACT calculation yearly, or more frequently under specific circumstances.

- <u>Valuation Test (VT)</u>: Conducted on a monthly basis, the VT ensures a covered bond programme's exposure to market risk (namely, volatility in interest rates and currency exchange rates) is monitored. The VT measures the present value to the covered bond collateral relative to the Canadian dollar equivalent of the market value of the outstanding covered bonds guaranteed by it.
- <u>Pre-Maturity Test (PMT)</u>: Covered bonds may be issued with an Extended Due Date for payment ("soft bullet"), or as ("hard-bullet") covered bonds that are not extendible. In respect to hard-bullet covered bonds, at programme specific ratings' triggers, the PMT ensures that the covered bond collateral includes sufficient cash to meet in full all principal payments due under the maturing hard-bullet series covered bonds (together with all other payment obligations ranking in priority) for a period prescribed in the transaction documents of the specific programme.
- <u>Amortisation Test (AT)</u>: Following an issuer event of default, the AT ensures that the notional value of cover assets is at least equal to the outstanding Canadian Dollar equivalent covered bonds principal.

Covered Bond Collateral Hedges and Ratings Triggers

Furthermore, the issuer is required to have in place covered bond collateral hedges for the guarantor at the time of each transfer of covered bond collateral or covered bond issue in order to minimise interest rate or FX mismatches which may include contingent covered bond collateral hedges, which become effective, e.g., in case of an event of default of the registered issuer. The guarantor carries out monthly valuations to assess market risks (see above). Hedging counterparties must meet the counterparty requirements set out in the CMHC Guide, including minimum standards established by rating agencies. The terms of each transaction document must explicitly state that the guarantor may replace a specific counterparty upon rating triggers or in case of an event of default of the registered issuer. CMHC must be informed of counterparty replacement, termination or resignation. Swap counterparties rank pari passu with covered bondholders prior to issuer default.

The framework requires a rating trigger for the establishment of a cash reserve for the benefit of the guarantor sufficient to meet in full all interest payments due on outstanding covered bonds for a period of time specified by the issuer in its transaction documents together with all payment obligations of the guarantor entity ranking prior to such interest payments. It is retained in a bank account and, following an issuer event of default, the balance of the cash reserve forms part of available revenue receipts to be used by the guarantor to meet its obligations under the covered bond guarantee.

VI. TRANSPARENCY

The Canadian covered bond legal framework is prescriptive in terms of information disclosure and reporting frequency. The requirements are comprehensive and include the following:

- All material information related to a registered issuer and covered bond programme must be accessible on an ongoing basis, mainly through a dedicated website set up by the issuer. All transaction documents must be available on the website.
- A monthly report must be prepared within 15 business days following the end of each month and include detailed information on the covered bond programme (e.g. key parties/counterparties, ratings, event of default occurrence, credit enhancement and rating triggers, statistics related to cover asset and covered bonds, material issues and deficiencies).

As of April 2020, seven of the eight Canadian covered bond issuers had joined ECBC Covered Bond Label and published its Harmonised Transparency Template (HTT).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

In Canada, federal financial institutions are prudentially regulated by OSFI. Provincially regulated financial institutions are subject to prudential regulation by the applicable provincial entity, including, in the case of provincially regulated issuers in Quebec, the AMF.

CMHC takes the lead role in assessing and monitoring compliance with the Canadian legal covered bond framework requirements. A registered issuer shall deliver to CMHC a certificate signed by the issuer's executive officer attesting that the Issuer has complied with the requirements of the Canadian covered bonds legal framework. Notification to CMHC of material change to an issuer's registered covered bond program or terms of covered bonds is required. Registered issuers must also provide immediate notice to the CMHC in case of: (1) a failed ACT and/or AT; (2) awareness of a rating downgrade/ withdrawal/trigger; (3) a breach or default under the terms of the covered bond programme; and (4) breach or default under the covered bonds legal framework.

Issuers are required to appoint an independent third party cover pool monitor (CPM) with adequate qualifications. The responsibilities of the CPM consist of ensuring the accuracy of the records regarding the cover pool and of the required tests particularly the Asset Coverage Test. Results are required to be reported to the CMHC and the bond trustee at least annually. Issuers are required to make available all information needed by the CPM. Following issuer insolvency, the CPM remains in place for the benefit of the guarantor.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The guarantor is structured as a bankruptcy-remote, special-purpose entity and, as such, following insolvency of the issuer, all the assets of the guarantor are segregated from those of the bankrupt estate of the issuer. Covered bond holders shall retain a claim against the issuer for any deficiency in the repayment of all principal, interest and other amounts owing thereunder, and such covered bond holders shall rank pari passu with the ordinary depositors of the issuer.

> Upon an issuer event of default, the guarantor is required to meet the covered bond obligations using the cash flows generated from the cover assets. In case of insufficient cash, the guarantor is permitted to sell the cover assets, find alternative funding or enter repos. The entire pool of cover assets is available as security for all the outstanding covered bonds issued under the programme, so there is no direct link between particular assets and a specific series of covered bonds.

> Upon a guarantor event of default, covered bonds accelerate. Preferential rights are limited to the guarantor's assets. Payments are made in accordance with the applicable order of priority.

An issuer or guarantor event of default include at a minimum (other events maybe prescribed in the documentation) the following: (1) impending or actual insolvency; (2) failure to pay principal, interest or any other amount due under the covered bond programme when due; (3) failure to comply with the remedial action following a rating trigger; and (4) failure to meet the AT by a guarantor on a calculation date. An issuer's transaction documents can provide a remedy period of up to 10 business days for a failure to pay principal, and up to 30 days for failure to pay interest or other payment under the covered bonds.

In April 2018, the Government of Canada published the Bank Recapitalisation (Bail-in) Conversion Regulations, SOR/2018-57, under the Bank Act and CDIC Act (Bail-in Regulations). The Bail-in Regulations specify the prescribed shares and liabilities that are eligible for bail-in conversion and their conversion terms. Covered bonds are specifically excluded from prescribed liabilities under the bail-in regulations. Similarly, the AMF has excluded covered bonds from the prescribed debts eligible for conversion as part of the recapitalization of a Quebec-regulated domestic systemically important financial institution in its Regulation Respecting. The Classes Of Negotiable And Transferable Unsecured Debts And The Issuance Of Such Debts And Of Shares published on March 29, 2019 and effective March 31, 2019 pursuant to section 40.50 of the Quebec Deposit Institutions and Deposit Protection Act (chapter A-26).

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Canadian covered bonds may be eligible to be used as liquid assets (Level 2A) under the European Union's Liquidity Coverage Requirement Delegated Act (EU LCR), the EU's implementation of the Basel liquidity coverage ratio requirements, provided they comply with the requirements set out in the EU LCR. Canadian covered bonds may be eligible for the same risk weighting as unsecured bank debt for purposes of calculating regulatory capital ratios under Article 120 of the European Union's Capital Requirements Regulation (CRR). If denominated in euro, Canadian covered bonds may be eligible for European Central Bank repo operations as a haircut category III asset pursuant to European Central Bank Guidelines 2015/510 and 2016/65 on the implementation of the Eurosystem monetary policy framework. Valuation haircuts are generally based on credit quality step, residual maturity and coupon structure of the covered bond. Canadian covered bonds are subject to the same spread risk factors and concentration thresholds as unsecured bonds or loans pursuant to Articles 176 and 185 of delegated regulation (EU) 2015/35 implementing the EU's Solvency II directive 2009/138/EC (Solvency II).

Canadian covered bonds are not UCITS 52(4)-compliant because Canadian issuers do not have their registered head office in an EU state and Canadian covered bonds are not issued in accordance with the provisions of a national law transposing the mandatory requirements of the European Union's covered bond directive (EU) 2019/2162. Therefore, they do not benefit from the more preferential risk weighting under Article 129(4) and (5) of CRR, and are not eligible for the preferential risk factors and concentration thresholds in Articles 180(1) and 187(1) of Solvency II.

Third country covered bonds, including Canadian covered bonds do not benefit from the preferential risk weighting under the European Union's covered bond directive and the associated amendments to the C.

X. ADDITIONAL INFORMATION

X.1. Eligible for Level 2A assets under Canada's implementation of Basel's Liquidity Coverage Ratio (LCR) and treatment under Bank of Canada programs

Covered bonds meeting certain structural requirements (including that they are issued and owned by a bank or mortgage institution, and are subject by law to special public supervision designed to protect bond holders) are included as Level 2A assets for the LCR, provided they satisfy the following conditions:

> Not issued by the institution itself or any of its affiliated entities;

> Either (i) have a long-term credit rating from a recognised external credit assessment institution (ECAI) of at least AA- or in the absence of a long-term rating, a short-term rating equivalent in quality to the long-term rating; or (ii) do not have a credit assessment by a recognised ECAI but are internally rated as having a probability of default (PD) corresponding to a credit rating of at least AA-;

> Traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

> Have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions: i.e. maximum decline of price or increase in haircut over a 30-day period during a relevant period of significant liquidity stress not exceeding 10%.

Covered bonds issued by Canadian institutions prior to the Canadian covered bond legislation coming into force on 6 July 2012 may be included as Level 2A assets if they meet the above conditions.

Covered bonds are assets eligible for use as collateral under the Bank of Canada's (BoC) Standing Liquidity Facility, Securities Lending Program, Term Repo Operations and the BoC's Standing Term Liquidity Facility, introduced in March 2020. Eligible covered bonds are those that are compliant with the federal legislative framework for covered bonds, and of sufficiently high quality with a rating broadly equivalent to AAA. For all assets pledged as BoC collateral, only Canadian-dollar assets are eligible with the exceptions of securities issued by the United States Treasury in US dollars.

X.2. Market Overview

Outstanding covered bonds by Canadian banks has generally followed an upward trend in recent years. Canadian banks remain key participants in international covered bond markets, issuing opportunistically in the CAD, EUR, USD, GBP, CHF, and AUD markets upon favourable basis swaps and strong market technicals. Canadian banks' constraint in terms of future issuance is the covered bond encumbrance limits.

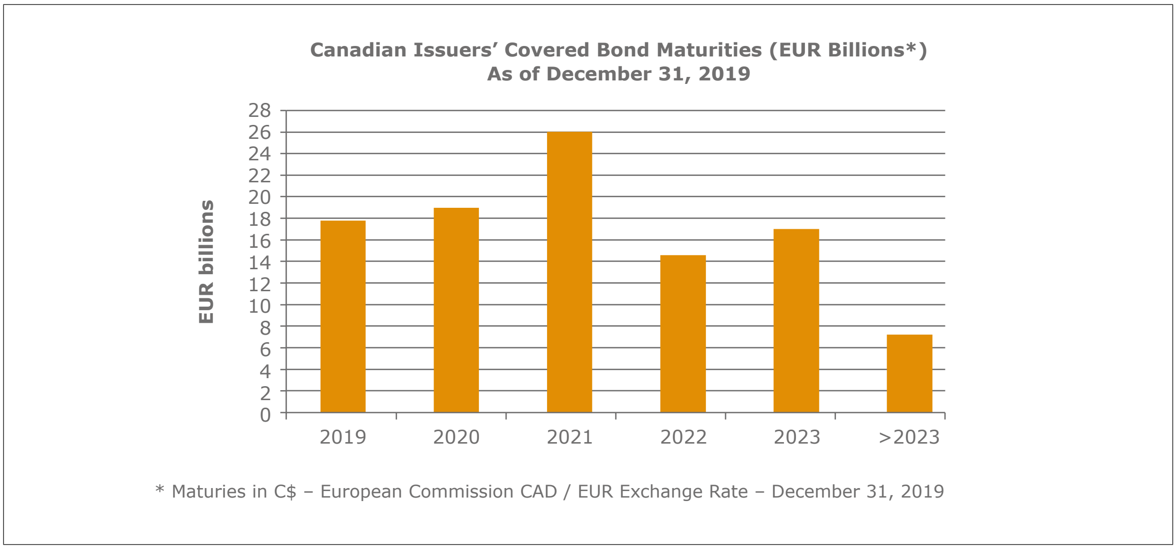
FIGURE 2: CANADIAN BANKS' COVERED BOND ISSUANCE

At 31 December 2019 (C$ bn)	BMO	BNS	FCDQ	CIBC	HSBC	NBC	RBC	TD	Total
OSFI 5.5% covered bond encumbrance limit	46.9	59.8	14.4	35.8	6.0	15.5	78.6	77.8	334.8
Outstanding covered bonds	25.4	25.5	5.8	18.7	2.3	9.6	39.2	38.8	165.3
OSFI Covered Bond Ratio Limit	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	
**Covered Bond Ratio (%)	3.2%	2.5%	2.3%	3.1%	2.4%	3.7%	2.9%	2.9%	
Remaining encumbrance capacity	**2.3%**	**3.0%**	**3.2%**	**2.4%**	**3.1%**	**1.8%**	**2.6%**	**2.6%**	

Source: CMHC

** Covered Bond Ratio refers to total assets pledged for covered bonds relative to total on-balance sheet assets.

> FIGURE 3: CANADIAN ISSUERS' COVERED BOND REDEMPTIONS (AS OF 31 DECEMBER 2019, EUR BN)



Source: CMHC

Issuers: Royal Bank of Canada (RBC), Bank of Montreal (BMO), Bank of Nova Scotia (BNS), Canadian Imperial Bank of Commerce (CIBC), Fédération des Caisses Desjardins du Québec(FCDQ), National Bank of Canada (NBC), Toronto Dominion Bank (TD), HSBC Bank Canada.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/12/Canadian_Covered_Bonds

COVERED BOND LABEL: Royal Bank of Canada (1 pool), The Toronto-Dominion Bank (1 pool), The Bank of Nova Scotia (1 pool), Fédération des caisses Desjardins du Québec (1 pool), National Bank of Canada (1 pool), Canadian Imperial Bank of Commerce (1 pool), Bank of Montreal (1 pool).

3.8 CHILE

By Danilo Castañeda, Camila Herrera and Benjamín Poblete, Banco Santander Chile

I. FRAMEWORK

The legal framework for Chilean covered bonds (*Bonos Hipotecarios*, also BHs) is determined by:

> The General Banking Law (Ley General de Bancos, LGB): Article 69, n°2, BH issuances; and Articles 125, 126 and 134, special treatment of banking entities under bankruptcy.

> The Chilean Central Bank: Financial Regulation Compendium (*Compendio de Normas Financieras*, CNF), Chapter II.A.2, Chilean Central Bank complementary rules.

> Superintendency of Banks (*Superintendencia de Bancos e Instituciones Financieras*, SBIF) today Financial Market Commission (*Comisión para el Mercado Financiero*, CMF): *Recopilación Actualizada de Normas* (RAN), Chapter 9-2, Complementary rules of the Chilean banking regulatory agency.

In 2010, Law 20.448 – also called MKIII, the third reform to the Capital Markets Law – introduced a series of changes in terms of liquidity, financial innovation and integration of the capital markets. Among them was the amendment of Article 69, n°2 of the LGB which enabled banks to issue bonds with no special guarantees, called BHs. These securities are specifically aimed to raise funds for the origination of mortgage loans (*mutuos hipotecarios*) used to finance the acquisition, construction, reparation or extension of residential properties. Only residential mortgages for these purposes are accepted as collateral, excluding commercial, public or other types of loans. An additional restriction imposed to define an eligible mortgage is that only new mortgages are accepted. Hence, a maximum time limit of 18 months was set for the origination of eligible loans since the date of the BH's issuance. Thus, BH bonds also have an anticipated rescue clause for a proportional prepayment of the bond in case of insufficient origination. The issuer has the flexibility of an additional one-month period to incorporate new mortgage loans of the same nature and quality to comply with the cover asset limit and balance principle at the end of these 18 months allocation period and at the end of each month along the life of the bond.

Under an eventual credit event/default of an issuer, Articles 125, 126 and 134 of the LGB give BHs the same treatment and current legal status as that of outstanding *Letras Hipotecarias* (LH), a type of mortgage bond frequently used by Chilean banks in the past to finance their mortgage business. These articles regulate the procedures in such case and the mechanisms for the tender process and subsequent transference of eligible loans/assets and liabilities from the defaulted issuer to a new entity.

In September 2012, a new regulation was published in a joint statement by the Chilean Central Bank and the SBIF, describing BHs as a new source of long-term funding for banking entities, thus allowing better conditions for clients as well as a new investment alternative for institutional investors. At the same time, it explicitly incorporated a prudential regulation associated with financial stability objectives. In particular, it stated the obligation of periodic reporting of both bonds and loans, the definition of certain credit indicator limits, specific policies to grant loans and other transparency objectives for the benefit of both clients and investors.

In January 2019 a new Banking Law was published and included a new restriction regarding mortgages eligibility. This new law established that loans granted by the issuer within a timeframe of twelve months prior to the issuance of the BH will be accepted as eligible collateral.

Chapter II.A.2 of the CNF regulates issues related with eligible loans, as well as investments in fixed income securities as substitute collateral since the date of issuance during the period of loan origination, specifying limits for compliance during the whole life of the bond.

The SBIF's RAN mainly regulates the issuance of BHs, the relationship between bonds and loans, and the establishment of a special Register for further control which includes detailed up-to-date information to comply with transparency and monthly reporting objectives.

II. STRUCTURE OF THE ISSUER

Under current legislation only banking entities are allowed to issue *Bonos Hipotecarios*. Cover assets are held within the balance sheet with the proper internal controls to monitor the cover pool and its relationship with its related bond ratios and limits over time.

Banco Santander Chile issued the first ever local covered bond (Bono Hipotecario). The first covered bond programme was for a total amount of UF 3 Million (approx. USD 134 million), the first issuance out of the programme was in 1 August 2013 for a total amount of UF 1.5 MM (approx. USD 68 million) and then the second one was in 20 November 2013. Both issuances generated a great appetite from local investors and the result was a spread of 15 bps lower than the senior unsecured debt outstanding. In 2014 Banco Santander Chile successfully registered a second covered bond programme for a total amount of UF 5 million and issued an amount of UF 1.5 million in September 2014.

As of 31 December 2019, Santander Chile is still the only active issuer of covered bonds in the Chilean market.

III. COVER ASSETS

Regulation states that issuers can consider eligible mortgages already granted within a timeframe of twelve months prior the bond's date of issuance to allocate the resources to the origination of mortgages. After that period, at the end of each month during the life of the BH, the outstanding balance of mortgages, excluding amounts in arrears, should not be lower than 90% of the outstanding balance of the respective bonds. Any difference between the outstanding amounts of the mortgages and the bonds must be covered by high credit quality fixed income instruments.

Figure 1: Fixed income substitute collateral: minimum 80% in sovereign bonds (Categories: I. and II.)

I.	Sovereing bonds	Fixed income instruments issued by Chilean Central Bank.
II.	Sovereing bonds	Fixed income instruments issued by Chilean Treasury.
III.	Corporate bonds	Local Corporate bonds rated AA+ or higher (by at least two rating agencies). Sublimit of up to 10% of the total of funds by each *Bono Hipotecario* issuance.
IV.	Bonos Hipotecarios	*Bonos Hipotecarios* issued by other banking entities.
V.	Term deposits	Term deposits originated by high rated banks established in Chile, excluding those of the issuer of the covered bonds.
VI.	LCH	Housing LH: *Letras De Crédito Hipotecario* issued for housing purposes by other banking entities.
VII.	Unsecured bank bonds	Unsecured bank bonds rated AA+ or higher (by at least two rating agencies), excluding those of own issuance.

Source: Chilean Central Bank, Banco Santander Chile

IV. VALUATION AND LTV CRITERIA

Eligible loans are only accepted as collateral for the corresponding issued bond once the accredited third-party property appraiser has finished the valuation process and after it has been registered at the corresponding CBR (*Conservador de Bienes Raíces*) – the local entities that certify legal dominion of properties.

The minimum loan-to-value (LTV) defined by law is 80%. Conditions for valuation are also subject to performing or non-performing status of loans. The maximum accepted number of arrears of any single loan in the pool is 10. Above that, the loan must be replaced with a new one of the same nature. As explained before for the cover-to-bond outstanding balance ratio, all amounts in arrears are excluded.

LTV alone is not enough for eligibility of mortgage loans. In addition, a maximum debt-to-income ratio of 25% is demanded.

V. ASSET – LIABILITY MANAGEMENT

Current legislation does not prescribe overcollateralisation for the issuance of BHs.

Under a balance principle the nominal amount of cover assets must always be at least equal to the outstanding amount of related *Bonos Hipotecarios* and loans in arrears or prepaid should be replaced always under the restriction that only new mortgages are potentially eligible as collateral for BHs.

Banks are free to structure the covered bonds according to their own needs and criteria. Banco Santander's first programme bond was a 15-year amortising structure reflecting the expected amortisation schedule of the underlying loan portfolio adjusted by the empirical loan prepayment rate. The second registered bond programme was an 18-year amortising structure reflecting the expected amortisation schedule and the empirical prepayment rate of the new loan portfolio.

VI. TRANSPARENCY

Current regulation includes a prudential approach associated with financial stability objectives: mandatory monthly reports of assets and liabilities in the Register and compliance of required ratios; a specific Credit Policy for mortgage eligibility which must be approved by the Board of Directors and published on the issuer's webpage; and client's LTV and debt-to-income ratios reported in a monthly basis.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Article 69, n°2 of the LGB mandates banks to maintain a special mortgage register (*Registro de Mutuos Hipotecarios*) for the identification and control of the relation between mortgages and their respective BH issuances.

SBIF's RAN 9.2, n°5, sets conditions for inscription of mortgages on the Register and the required information including: identification of bond issuance and loans; dates of inscriptions; original and substitute loans; identification of fixed income assets held as substitute collateral; and elimination from the register by number of arrears or property value deterioration.

Central Bank's CNF Chapter II.A.2, n°18, within its explicit transparency and information objectives, details monthly reporting data including: up-to-date average debt-to-income ratios of clients with eligible loans for each series of BH issuances; average value of properties linked to BHs at the date the credit was granted; LTV of the pool updated by loan replacements; loan characteristics (maturity, interest rates, fixed, floating or mixed type, currency denomination, inflation link mechanism and loan prepayment conditions); outstanding balances of loan portfolios and associated BH issuances and, finally, the total amount of fixed income assets and its general characteristics.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

There are 2 main issues related with bankruptcy in the BH legislation:

1) Since only new loans are accepted as collateral, this avoids the possibility of structuring BHs with a selection of the best quality assets which could be against the interests of other creditors such as depositors in case of bankruptcy.
2) In the case of bankruptcy, a special procedure in the way of a separated auction or tender process is triggered for those assets and liabilities clearly identified and associated with BHs in the Register. Eligible bidders are other public or private financial institutions, and the final buyer must take care of BH payments. This process is thoroughly covered in the LGB, same as for Letras de Crédito Hipotecarias (LH).

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Chile is not a member of the European Union. Therefore, Chilean BHs are issued under the existence of a specific country legislation – which is a requirement for these matters – no special treatment or benefit is granted in terms of preferred risk-weighting for regulatory capital purposes.

X. ADDITIONAL INFORMATION

In a clear intent to provide these Bonds with more liquidity the Chilean Central Bank announced on the 28 March 2013 a special Repo programme ("Repo BH") which accepts exclusively BHs as collateral. The Repo BH is offered for up to 14 days at a floating rate equivalent to the current monetary policy rate (MPR) of each day plus 25 basis points. Eligible BHs will be subject to the credit rating of the BH issuer banking entity which must be in AAA, AA or A.

On top of this, on July 2015 the SBIF announced a change in the regulation for Liquidity Management. This amendment introduces the compulsory measurement and reporting of the Liquidity Coverage Ratio and the Net Stable Funding Ratio. This local LCR ratio recognises BHs as high-quality liquid assets, which could promote the appetite of financial institutions for this asset class.

On an additional attempt to promote the issuance of this type of instruments, the SBIF announced on the 31 January 2017 an amendment on Chapter 9-2, n°5.1 of the RAN, allowing mortgage loans issued before the bond's date of issuance to be eligible for the cover pool as long as they were granted after the beginning of the interest accrual period stated in the amortisation schedule of such bond and after the registration certificate of such bond is published by the issuer in its website. The main objective of this amendment is to make the cover pool easier to build in the 18-month time limit after the date of issuance of the BH.

Despite these incentives, there have not been BHs issuances in the Chilean market other than the ones placed by Santander Chile. This lack of activity can be explained by the fact that the more relevant Chilean issuers already have the maximum credit risk rating (AAA), and therefore the double recourse guarantee provided by the BHs is currently not as valuable for the potential investors, specifically for banks, given that it does not provide an advantage in terms of capital consumption compared to standard corporate bonds.

Additionally, on 12 January 2019 a new Banking Law was published. This new regulation was approved by Congress on 3 October 2018. By 21 April 2020 there are still pending matters which require further regulation and will be reflected on the new specific rules regarding the BH.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/113/Bonos_Hipotecarios_%28BH%29_-_Chilean_Covered_Bonds

3.9 CYPRUS

By Christina Kypri-Georgiadou, Bank of Cyprus

I. FRAMEWORK

Following on to an extensive and fruitful consultation process, which lasted over a year and involved the Central Bank of Cyprus ("CBC"), the Ministry of Finance, the Cooperative Societies Supervision and Development Authority and the banking industry, Cyprus entered the covered bond universe in December 2010.

The primary legislation governing the issuance of covered bonds (Kalimmena Axiografa) is the Covered Bond Law of 2010, (130 (I)/2010), which came into force on December 23, 2010 (the "Law").

On the same day, the CBC issued a Directive (526/2010) under the provisions of the Law, which constitutes the regulatory framework for the issue of covered bonds (the "Directive").

The Law and the Directive (the "Cypriot Legal Framework") are further supplemented by other laws (e.g. the Bankruptcy Law, the Banking Business Law, the Companies Law etc.) as referenced by the Law.

The Cypriot Legal Framework has been finalized in consultation with and following the positive opinion of the ECB, dated 14 October 2010 and 23 March 2011 related links are:
http://www.ecb.int/ecb/legal/pdf/en_con_2011_27_f_sign.pdf and
http://www.ecb.int/ecb/legal/pdf/en_con_2010_73__f_sign.pdf).

II. STRUCTURE OF THE ISSUER

Under the Cypriot Legal Framework, Credit Institutions which have been approved by the Competent Authority (i.e. the CBC or the CSSDA), are only allowed to issue covered bonds using the direct issuance route.

Credit Institutions are defined, under the Law, to be:

> Banks (as defined in the Banking Laws);

> Cooperative Credit Institutions (as defined in the Cooperative Societies Law); and

> The Housing Finance Corporation (established under the Housing Finance Corporation Laws).

In accordance with Parts II and III of the Law, only Approved Institutions are eligible to issue covered bonds. Approved Institutions are those Cypriot Credit Institutions which have been registered in the Register of Approved Institutions, (publicly available at the following link:
https://www.centralbank.cy/en/licensing-supervision/banks/register-of-credit-institutions-operating-in-cyprus) following a relevant application to the Competent Authority.

Approval of such application is granted within 1 month from submission, and only after the Credit Institution has successfully demonstrated its ability to carry out the legal obligations of an Approved Institution, and that it fulfils the criteria and conditions determined by the Competent Authority.

Indicative minimum requirements set out in the Directive, for the registration of a Credit Institution in the Register of Approved Institutions, are:

> Core Tier 1 capital of at least EUR 50 million and capital adequacy ratio as required by the CBC under Pillar I and Pillar II of Regulation 575/2013 (Capital Requirements Regulation);

> Establishment of an automated system for the support of the covered bonds business;

> Established risk management procedures for the recognition, management, monitoring and control of risks that may arise during the conduct of the covered bonds business;

> Procedures, policies and systems in place for the support of the covered bonds business; and

> Compliance with the provisions of the Law and the Directive, to be represented by a written confirmation by the Board of Directors of the Credit Institution.

With respect to individual covered bond issuance, Approved Institutions must subsequently apply to the Competent Authority for registration of such new issue in the Covered Bonds Register (publicly available at the following link: http://www.centralbank.gov.cy/nqcontent.cfm?a_id=11439&tt=article&lang=en). Approval of such application is granted within 10 days from submission, and it is only following such approval that a newly issued bond becomes a covered bond.

III. COVER ASSETS

Primary cover assets are:

> Residential property backed loans (i.e. any kind of credit facility, secured on immovable property, provided that the property is used or intended to be used for residential purposes);

> Commercial property backed loans;

> Public claims;

> Maritime loans; and

> Any other type that may be determined by the Competent Authority.

The criteria, terms and conditions in relation to cover assets are determined by the regulator in Articles 13, 14 and 15 of the Directive. The main criteria indicatively include:

> Residential and commercial loans should be secured by a mortgage (or an equivalent security over a property if the property is not located in Cyprus) created in accordance with the Laws of Cyprus or the law of other Member States[1];

> The mortgage or the equivalent charge on immovable property, securing the credit facility, is created for an amount, at least, equal to the value of the loan;

> The immovable property securing the credit facility must be situated on the territory of the Republic or on the territory of other Member States;

> A residential or commercial loan secured by buildings under construction may be included in the cover pool, provided that the total value in each cover pool of the loans secured by buildings under construction does not exceed 10% of the cover pool value;

> Rescheduled loans may be included in the cover pool, only after the lapse of six months from the payment date of the first rescheduled loan instalment;

> Hedging contracts may also be included in the cover pool, only to the extent that they are used exclusively for the purpose of hedging any type of risk that may adversely affect the value of the cover assets.

a) It is noted, that in accordance with Article 33(b) of the Directive, the counterparty in a hedging contract must *"have a credit rating assigned to the first credit quality step as determined in Annex VI of the Directive 2006/48/EC or a guarantee by a connected entity of the counterparty whose credit rating is assigned to the first credit quality step"*. The latest version of Annex VI is now incorporated in Article 129 of the Capital Requirements Regulation (CRR).

1 Member State means a member state of the European Union or other state which is party to the Agreement for the European Economic Area, which was signed in Oporto on 2 May 1992, and adapted by the Protocol signed in Brussels on 17 May 1993.

Finally, apart for the Primary Cover Assets, Complementary Assets may also be included in the cover pool, as prescribed under Articles 16, 17 and 18 of the Directive (e.g. deposits with central banks and other highly rated institutions, traded debt securities, etc.).

Limitations and guidelines on the above are specified in the Directive (e.g. total value of Complementary Assets included in the cover pool and counted in the measurement of the Basic Collateralisation, not to exceed 15% of the total value of covered bonds, etc.).

IV. VALUATION AND LTV CRITERIA

For **residential loans**, the LTV is not allowed to exceed 75%, provided that if the LTV is above 75% but below 100%, such loans may be included in the cover pool on the condition that:

> They do not exceed 25% of the value of the covered bonds secured by the cover pool; and

> Such inclusion would not cause the weighted LTV of the cover pool to exceed 80%.

For **commercial loans**, the LTV is not allowed to exceed 60%, provided that if the LTV is above 60% but below 80%, such loans may be included in the cover pool on the condition that:

> They do not exceed 25% of the value of the covered bonds secured by the cover pool, and

> Such inclusion would not cause the weighted LTV of the cover pool to exceed 65%.

For **maritime loans**, the LTV is not allowed to exceed 60%, provided that if the LTV is above 60% but below 70%, such loans may be included in the cover pool on the condition that:

> They do not exceed 25% of the value of the covered bonds secured by the cover pool, and

> Such inclusion would not cause the weighted LTV of the cover pool to exceed 65%.

In accordance with Article 13(10) and Article 15(10) of the Directive, the valuation of residential and commercial properties and the valuation of ships (Article 15(10) of the Directive) should be carried out by an independent valuer; i.e. a person who possesses the necessary qualifications, ability and experience to produce a valuation and is independent from the credit decision process.

For the monitoring and review of the value of the residential and commercial properties, the provisions of paragraph 8 (b) of Part 2 of Appendix VIII of the Directive of the Central Bank to banks for the Calculation of the Capital Requirements and Large Exposures shall apply. The provisions of the Directive dictate the following:

> The revaluations of the properties may be carried out by applying statistical methodologies.

a) For commercial properties, according to the aforementioned Directive, the value of the property is reviewed regularly and at least once a year;

b) For residential properties, according to the aforementioned Directive, the value of the property is reviewed regularly and at least once every three years; and

c) In situations where the market is subject to significant changes in conditions, a more frequent review of the property value is required.

> When information indicates that the value of the property may have declined materially relative to general market prices, the property valuation must be reviewed by an independent valuer.

> Also when the balance of the financing exceeds EUR 3 million or 5% of the own funds of the credit institution, the valuation of the property will be reviewed by an independent valuer at least every 3 years.

Additionally, and pursuant to Article 46(b) of the Directive, the Covered Bond Monitor ("CBM"), appointed in accordance with Article 49 of the Law, has a duty to examine the valuation process in relation to the valuation of the cover assets.

V. ASSETS – LIABILITY MANAGEMENT

The Directive provides for the following statutory tests:

> **Nominal Value Test**

The adjusted[2] nominal value[3] of the Basic Cover (i.e. the Basic Collateralisation as defined under Article 24 of the Directive) must be at least equal to the total value of covered bonds issued under the programme.

> **Net Present Value Test**

The adjusted net present value of the Basic Cover must be at least equal to 105% of the total net present value of covered bonds issued under the programme. All cover pool assets, including loans, Complementary Assets and hedging instruments must be included in the calculation of net present value of the Basic Cover.

The above 105% condition must also be met in the following scenarios:

(a) Parallel interest rate shift of +200 and -200 basis points;

(b) Interest rate shifts determined by a 99% 6-month confidence interval using daily changes for the last 365 days;

(c) Exchange rate changes:

> Euro and member-state currencies: 10%;

> Currencies of the United States, Canada, Japan, Switzerland, Australia: 15%; and

> Other currencies: 25%.

(d) Exchange rate shifts determined by a 99% 6-month confidence interval using daily changes for the last 365 days.

> **Weighted Average Life Test**

The weighted average life of cover assets counted in the measurement of Basic Cover and Supervisory Overcollateralisation (as defined under Article 25 of the Directive), must be longer than the weighted average life of the covered bonds.

> **Interest Cover Test**

Interest inflows from cover pool assets in the Basic Cover and Supervisory Overcollateralisation for the next 180 days must be reconciled with interest due on the covered bonds for the next 180 days and the highest net interest shortfall must be covered by the Complementary Assets contained in the Basic Cover and Supervisory Overcollateralisation.

> **Prematurity Test**

In relation to the repayment of the principal amount of the covered bonds, liquidity must be maintained, in the form of Complementary Assets or outside the cover pool in the form of liquid assets, as follows:

a) For the period between 180 days to 30 days before the maturity date of the covered bonds, at least 50% of the principal amount due for repayment;

b) For the period between 30 days before the maturity date and the maturity date of the covered bonds, 100% of the principal amount due for repayment.

Liquidity maintained for the purpose of meeting the prematurity test is not subject to the 15% limit of Complementary Assets in the cover pool (set in Article 20 of the Directive).

2 Adjusted, refers to the set-off and LTV adjustments, as outlined under Article 24 of the Directive.

3 "Value" is defined under the Directive to mean nominal value plus accrued interest.

Additionally to the above statutory tests, and with a view to protect the depositors and all other unsecured creditors in case of insolvency proceedings, and to potentially provide for a reserve of assets that may be used in the future to sustain further stresses, the Directive provides that an Approved Institution is not permitted to issue covered bonds, if such an issue would result in:

> the total value of the primary assets which are required to be included in the institution's cover pools for each cover bond category, to exceed 90% of total value of the institution's eligible primary assets for that cover bond category, or

> the total value of the cover assets included in all cover pools and counted in the cover pool adequacy, to exceed 25% of the total value of the institution's assets.

VI. TRANSPARENCY

Transparency, in the Cypriot Legal Framework, is ensured through a series of reporting and registers that need to be maintained, updated and monitored by the covered bond Issuers as well as by the Competent Authority.

In accordance with Article 23 of the Law, covered bond Issuers are required to maintain a cover pool register for each covered bond Issue or Programme outstanding. Specific conditions for maintaining such Cover Pool Register (e.g. form, content, entry recording etc.) are outlined in Articles 34-38 of the Directive. The Cover Pool Register is to be updated whenever an asset is included or excluded from the cover pool (and at least on a monthly basis) and shared with the Competent Authority and the CBM.

Specifically, Articles 39-42 of the Directive set further transparency obligations to the covered bond issuers, requiring them to disclose, on a quarterly basis and in a publicly accessible area (e.g. their websites), specific statistical information relating to their outstanding covered bonds, in the form determined therein. The above information is also submitted to the Competent Authority and the CBM on a quarterly basis, in the form of Appendix 5 of the Directive.

With respect to the covered bond issuers and the covered bonds issued and outstanding in Cyprus, transparency is ensured through the maintenance of a Register of Approved Institutions (Article 5 of the Law) as a well as a Covered Bonds Register (Article 12 Law) by the Competent Authority. Both registers are kept in an electronic form and are publicly accessible in the website of the Competent Authority.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Cypriot Legal Framework is structured in a manner which ensures very vigilant regulatory supervision of covered bond issuers. In accordance with Article 49 of the Law, each institution applying for registration in the Register of Approved Institutions, is required to appoint a qualified entity (e.g. an audit firm not associated with the covered bond issuer) as a Covered Bond Monitor (the "CBM"), such appointment being subject to the approval of the Competent Authority. The CBM must possess the necessary knowledge, experience and ability for the effective discharge of its functions and have the necessary qualifications outlined in Article 44 of the Directive. To the extent that, for any reason, the covered bond issuer has not managed to appoint a CBM, the Competent Authority is entitled to appoint one.

The duties of the CBM include a broad range of responsibilities, ranging from verifying to the Competent Authority, ahead of the application for the registration of bonds in the Covered Bonds Register, that the institution fulfils the conditions for registration as an approved institution, to submitting information and regular reports to the Competent Authority.

The main responsibilities of the CBM under the Cypriot Legal Framework include:

> Overseeing the compliance of the Issuer with its obligations under the Cypriot covered bond Legislation;

> Prior to an application for the registration of any covered bonds in the Covered Bonds Register, verifying that the Issuer fulfils the conditions for registration as an approved institution and complies with the provisions of the Law in relation to every previous issue of covered bonds that are outstanding;

- > Where hedging contracts are included in a cover pool, verifying that these contracts fulfil the criteria set out in Article 26 of the Cypriot covered bond Legislation;
- > Monitoring the cover pool assets included in a cover pool, including:
  - (a) Verifying the accuracy and completeness of the information provided for the cover pool Assets included in the Cover Pool Register;
  - (b) Examining the valuation process in relation to the valuation of the cover pool assets;
  - (c) Monitoring compliance, on an on-going basis, with the Statutory Tests; and
  - (d) Examining the entries in and removals from the Cover Pool Register and confirming the correct recording of the necessary information in the Cover Pool Register.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Following the registration of the covered bonds in the Covered Bonds Register, and in accordance with Article 16 of the Law, the cover pool is segregated from the covered bond issuer's insolvency estate, securing the claims of the Cover Pool Creditors[4] and constituting a form of charge over the cover pool assets.

In accordance with the provisions of Article 28 of the Law and Article 21 of the Directive, covered bond issuers are required to maintain a Special Transaction Account, recording all inflows from the cover assets and the outflows from the account together with the details of such outflow. The balance of such Special Transaction Account is to be used solely for the servicing of the covered bonds as well as for the creation or acquisition of cover assets to be included in the cover pool, to ensure fulfillment of the cover pool adequacy criteria.

Furthermore, pursuant to Article 21(3) of the Directive, the covered bond issuer must have procedures in place which ensure, at any time, the ability to trace and calculate the cash inflows from the cover assets that have not been used. The operation of the Special Transaction Account is subject to the supervision of the CBM, in order to ensure that the covered bond issuer complies with the provisions of the Cypriot Legal Framework at all times.

In case of dissolution of the covered bond issuer, and until all legal claims of the Cover Pool Creditors are fully satisfied, the cover pool assets are not available to satisfy the claims of any other creditors of the Issuer in accordance with Article 40(5) of the Law.

By virtue of Article 40(7), 41 and 42 of the Law, the Covered Bond Business Administrator (the "CBBA") is empowered to dispose of the Cover Pool Assets, and use the proceeds of such disposal in order to satisfy the claims of the Cover Pool Creditors in priority over the claims of all other creditors.

To the extent that a covered bond issuer is subject to dissolution proceedings, in accordance with Article 40(5) and Article 40(6) of the Law, until the claims of the Cover Pool Creditors are satisfied in full, the cover pool assets will not be available to satisfy the claims of other creditors. Any surplus from the disposal of the cover pool, and only once the claims of the Cover Pool Creditors have been satisfied in full, shall be returned to the credit institution (Article 44(1) of the Law).

Cover Pool Creditors enjoy a dual recourse, safeguarded under the Law. In accordance with Article 43(5) of the Law, to the extent that the claims of the Cover Pool Creditors are not fully satisfied from the disposal of the cover pool, then these creditors are, with respect to the unsatisfied part of their claims, unsecured creditors of the covered bond issuer.

In addition, where a covered bond Issuer is subject to dissolution proceedings, a Covered Bond Business Administrator (the "CBBA") is appointed by the Competent Authority (as per Article 59(1) of the Law), who

4 Cover Pool Creditors are defined in Article 2 of the Law to include, inter alia, the Covered Bond holders, the hedge counterparties, the Covered Bond Monitor and the Covered Bond Business Administrator.

takes all necessary measures to assume the control and the management of the cover pool and carries out the covered bond business. Any Cover assets not counted for the purposes of fulfilling the Statutory Tests shall be removed from the cover pool and the Cover Pool Register only by the CBBA.

The treatment of the cover pool following the commencement of dissolution proceedings is summarized below:

> Upon the initiation of dissolution proceedings, the CBBA assumes control of the cover pool (*according to the provisions of Article 40 of the Law*) and also of any liquid assets maintained outside the Register for the purposes of meeting the Prematurity Test, and is responsible to review the adequacy of the cover pool in accordance with Article 19 and Article 23 of the Directive;

> Cover pool adequacy assessment is being performed by the CBBA as per Article 18(6) of the Law, using solely those cover assets which are counted for the purposes of such assessment;

> To the extent that the above assessment has been successfully met, any assets which are not required to meet such assessment, including relevant requirements under a contractual OC, are being released and become available to satisfy the claims of all other creditors, members and investors of the credit institution;

> To the extent that the above assessment has not been successfully met, the CBBA (*according to the provisions of Article 29(2) of the Directive*) is entitled to use any assets included in the cover pool register that do not meet the criteria, terms and conditions for counting a cover asset in the cover pool adequacy. (*To the extent that such assessment is not met, the CBBA has the right to accelerate or transfer the CB business to another approved institution, in accordance with Article 62 (1) of the Law*).

With respect to an automatic acceleration of the covered bonds, this is something that is not provided for by the Law, where a covered bond Issuer is subject to dissolution proceedings.

In accordance with Article 40(1) of the Law, all outstanding covered bonds will remain in force (subject to the terms and conditions under which they were issued), and the obligations of the covered bond Issuer under the covered bonds continue to be enforceable.

IX. RISK WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 CRR. Cypriot covered bonds meet the criteria of UCITS 52(4).[5] This results in a 10% risk weighting assigned by the CBC. Covered bonds issued under the Cypriot Legal Framework form acceptable collateral for refinancing purposes with the ECB, following the typical ECB eligibility assessment and their inclusion on the ECB Eligible Assets Database (EADB).

X. ADDITIONAL INFORMATION

Set-off

Covered bond issuers are, in accordance with Article 20 of the Law, required to maintain, throughout the life of the covered bonds, a set-off reserve in connection with cover assets that are subject to set-off.

The Directive provides for the maintenance of such a set-off reserve, in the form of additional assets which are included in the cover pool (Articles 22, 24 and 25 of the Directive).

The set-off reserve is quantified by the Issuer and such calculation is subject to the monitoring of the CBM. The set-off reserve is segregated from the Issuer's other assets, forming part of the cover pool where Cover Pool Creditors have a priority claim over amounts in such reserve.

5 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

Conditional pass-through structures

In September 2015, the only Cypriot covered bond outstanding (issued by Bank of Cyprus Public Company Ltd) was converted to a conditional pass-through note further to the amendment of the programme documents. The amended structure mitigates the risk of refinancing by introducing features such as maturity extension and a pass-through mechanism.

As such, upon the occurrence of a failure by the issuer to pay the final redemption amount on the final maturity date, the cover bond will convert into pass-through and the maturity of the bond will be extended. Once the covered bond converts into pass-through, an appointed portfolio manager may try to sell portfolio loans and any such proceeds from the sale of cover assets would be used for the repayment of the covered bond.

Issuers: Bank of Cyprus Public Co Ltd.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/93/Cypriot_Covered_Bonds

3.10 CZECH REPUBLIC

By Petr Vybíral, Allen & Overy (Czech Republic) LLP

I. REGULATORY FRAMEWORK

On 4 January 2019, the long awaited new Czech rules governing the legal and regulatory framework of covered bonds (the **New Czech Covered Bonds Rules**) came into effect. The introduction of the New Czech Covered Bonds Rules was prompted mainly by several key weaknesses and negative assessment of the previous legal and regulatory framework by the rating agencies as well as investors.

The New Czech Covered Bonds Rules were enacted by virtue of amendments to Czech Act No. 190/2004 Coll., on Bonds, as amended (the **Czech Act on Bonds**), Czech Act No. 182/2006 Coll., on Insolvency and Methods of its Resolution (Insolvency Act), as amended (the **Czech Insolvency Act**) and certain other provisions of the applicable laws (the **Amendment**). Besides that, the Czech National Bank (the **CNB**) issued new Decree No. 2/2019 Coll., on Covered Block Records (the **CNB Decree**), regarding the record-keeping in respect of the covered blocks and the manner of meeting of the information duties of the issuers (and their periodicity).

II. COVERED BONDS AND THEIR TYPES

The New Czech Covered Bonds Rules recognise three types of covered bonds (*kryté dluhopisy*): (i) mortgage covered bonds (*hypoteční zástavní listy*); (ii) public covered bonds (*veřejnoprávní zástavní listy*); and (iii) mixed covered bonds (*smíšené zástavní listy*).

The distinction among these three types of covered bonds depends on what cover assets must prevail in the cover pool that serves as a cover in respect of those covered bonds. Therefore, in the case of mortgage covered bonds, the applicable Statutory 85% Limit (as described below) must be complied with by virtue of the following cover assets (or any combination or ratio of these assets) only: (a) mortgage loan receivables (*pohledávky z hypotečních úvěrů*) held on the balance sheet of an issuer; or (b) mortgage loan receivables held on the balance sheet of an issuer and that comply with the criteria set out in Article 129(1)(d)-(f) of Regulation (EU) No. 575/2013, as amended (the **CRR**).

By the same token, in the case of public covered bonds, the applicable Statutory 85% Limit (as described below) must be complied with by virtue of the following cover assets only: (a) receivables against, or receivables guaranteed by, a Member State of the OECD or the central bank of such a state, or a multilateral development bank or international organisation whose member is a Member State of the OECD, or (b) any exposures pursuant to Article 129(1)(a) and (b) of the CRR.

The least strict criteria apply to compliance with the applicable Statutory 85% Limit (as described below) in the case of mixed covered bonds. In that case, the applicable Statutory 85% Limit must be complied with by virtue of any cover assets (or any combination or ratio of cover asset classes), subject to certain exceptions as set out below.

III. STRUCTURE OF THE ISSUER

As before, pursuant to the New Czech Covered Bonds Rules, covered bonds may only be issued by a bank (a credit institution) with its seat in the Czech Republic which holds a Czech banking licence obtained and granted in accordance with the relevant provisions of Czech Act No. 21/1992 Coll., on Banks, as amended (the **Czech Act on Banks**). The New Czech Covered Bonds Rules have not introduced any further requirements for a special authorisation or any requirements for an issuer to be set up as a specialized credit institution (with restricted scope of permitted activities, for instance). Also, issuance of covered bonds will not trigger any prior approvals by the CNB or another authority on top of any standard requirements for prospectuses, if applicable.

The Czech legal and regulatory framework remains operating on the dual-recourse concept (with holders of covered bonds having a direct, unconditional and senior unsecured claim *vis-à-vis* the issuer and a preferential claim on the cover pool). This means that the assets in the cover pool(s) are reserved for preferential satisfaction of claims of holders of covered bonds and repayment of certain other debts so designated in the Czech Act on Bonds, the terms and conditions or the prospectus of covered bonds or in an agreement related to covered bonds (relevant parts of which must be disclosed to the investors in the same manner as the terms and conditions or the prospectus of covered bonds). Consequently, the covered bond holders have a *dual recourse* against (i) the relevant cover pool and (ii) the insolvency estate of the issuer.

IV. COVER ASSETS, COVER ASSETS REGISTER AND COVERED BLOCK RECORDS

The eligible assets comprise the following asset classes:

(i) mortgage loan receivables;

(ii) receivables against, or receivables guaranteed by, a Member State of the OECD or the central bank of such a state, or a multilateral development bank or international organisation whose member is a Member State of the OECD;

(iii) other assets or exposures pursuant to Article 129(1) and (2) of the CRR;

(iv) the issuer's cash on an account kept by a bank or another person set out in Czech Act No. 240/2013 Coll., on Investment Companies and Investment Funds, as amended (the **Issuer's Cash**); and

(v) rights arising under a derivative in accordance with Article (2)(5) of Regulation (EU) No. 648/2012 of the European Parliament and of the Council, on OTC derivatives, central counterparties and trade repositories (EMIR) (the **Derivative**).

A Derivative is considered as an eligible asset only if the following cumulative conditions are met: (i) the purpose of the Derivative is to hedge against the risks related to cover assets or covered bonds; (ii) the Derivative was clearly concluded in relation to covered bonds; (iii) the terms of the Derivative provide that insolvency of an issuer, crisis resolution or similar measure in respect of an issuer cannot constitute an event of default or similar event which could lead to early termination of the Derivative; and (iv) the issuer's counterparty to the Derivative has granted its prior consent to registration of the Derivative in the cover assets register (while the same applies also to its removal from the cover assets register).

Upon registration of an eligible asset in the cover assets register, it becomes a **cover asset**, which is protected by the Czech Act on Bonds and cannot be transferred, pledged or otherwise used as a security (until deregistered from the cover asset register).

Depending on the type of covered bonds involved, particular eligible assets will have to constitute such cover that the aggregate value of certain cover assets in the cover pool must be equal to at least 85% of the aggregate value of all debts for whose cover the cover pool serves (the **Statutory 85% Limit**), unless a higher limit is stipulated by the terms and conditions of a series of covered bonds. In meeting this limit, the following cover assets are always disregarded: (i) the Issuer's Cash; (ii) rights arising under a Derivative; and (iii) assets pursuant to Article 129(1)(c) and 129(2) of the CRR.

Besides the cover assets, the cover pool also includes, without a need of their registration in the cover assets register, the following assets (each designated as an accessory asset): (i) rights from a security provided in relation to the cover asset included in the cover pool, in particular rights from mortgages of real property in relation to the mortgage loans; (ii) rights from agreements entered into in relation to the cover assets included in the cover pool (especially rights from any insurance agreements or policies); (iii) an asset provided as a collateral or other security in respect of a Derivative; (iv) rights from agreements concluded in relation to the administration of the covered block whose part is the cover pool; and (v) upon appointment of an involuntary administrator of covered blocks, cash accepted as payment for the repayment of a debt corresponding to a receivable arising under another (cover) asset that is included in the cover pool or in direct connection with such an asset.

The cover assets register forms the core part of the covered block records that an issuer of covered bonds (or involuntary administrator of covered blocks, once appointed) is obliged to keep. The cover assets register, and the covered block records must be kept separately in respect of each cover pool and each covered block. The covered block records must provide complete information for assessing whether and how the issuer fulfils its duties under the Czech Act on Bonds.

The issuers are obliged to maintain the records in an electronic format in such manner which allows to track and reproduce all the past entries and changes and keep the records up-to-date. These records are not publicly available and are subject to banking secrecy rules set out in the Czech Act on Banks.

The currency in which the records shall be kept can be determined by the issuer in respect of each covered block. Further details on how the covered blocks records should be kept are laid down by the CNB Decree.

V. COVER POOL(S) AND COVERED BLOCK(S)

The cover pool is created upon registration of at least one eligible asset in the cover assets register. The issuer may, at its sole discretion, create only one cover pool or multiple cover pools, which may serve to cover its obligations from individual or multiple series of outstanding covered bonds or all series of covered bonds issued under one covered bond programme.

The cover pool is a fully segregated and ring-fenced pool of assets registered in the cover assets register, identified and designated by the issuer to constitute cover in respect of certain covered bonds that it has issued (and which are outstanding) and certain other debts of that issuer, as well as other assets (the accessory assets) which belong to that cover pool by operation of law. Any assets included in the cover pool must be held by the issuer and such assets shall remain at all times on the issuer's balance sheet.

The issuer is obliged to monitor the eligibility of the assets in the cover pool continuously. The issuer shall remove from the cover assets register those assets that no longer satisfy the eligibility criteria from the cover pool and substitute them with other eligible assets. However, the involuntary administrator of covered blocks, if and once appointed, has no such duty. The priority right of holders of covered bonds to the cover pool(s) extends also to any overcollateralisation.

With the creation of one or more cover pools, an issuer also creates a covered block, which is a fully segregated and ring-fenced block of assets and liabilities (debts) of that issuer. A covered block consists of the cover pool and the debts that it covers.

VI. VOLUNTARY COVERED BLOCK MONITOR

An issuer has to ensure that certain controls are in place with respect to whether the cover assets and cover pool comply with the New Czech Covered Bonds Rules. The issuer is obliged to maintain the cover block records and to monitor the eligibility of each of the cover assets included in the cover assets register on a continuous basis, but it may appoint a covered block monitor (*monitor krytého bloku*) to monitor the covered block(s) of the issuer and related parts of the covered block records. Further duties and obligations of the covered block monitor shall be specified in the relevant appointment agreement.

VII. STATUTORY MINIMUM OVERCOLLATERALISATION LEVEL AND OTHER TESTS

The New Czech Covered Bonds Rules further require the aggregate value of all cover assets included in the cover pool to represent at least 102% of the aggregate value of all debts that are covered by the respective cover pool and thus resulting in a minimum 2% overcollateralisation (the **Statutory Minimum OC Level** and the Statutory 85% Limit and the Statutory Minimum OC Level, jointly also the **Cover Tests**). The terms and conditions of a series of covered bonds may set a higher overcollateralisation level.

In the case of mortgage covered bonds, the nominal value of any mortgage loan receivable in the cover pool must not exceed 100% of the mortgage lending value of the mortgaged real property (the Statutory 100%

Individual LTV Limit), unless a lower limit is stipulated by the terms and conditions of a series of covered bonds (which may implement stricter, CRR conform criteria, in their programmes or individual series of covered bonds). However, this requirement does not operate as a strict eligibility criterion (but is rather set as a soft limit only) since, to the extent the nominal value of an individual mortgage loan exceeds such a limit, it will be partially disregarded for the purposes of calculating the Cover Tests.

The issuer regularly (at least each calendar quarter) informs the CNB on whether and how the issuer meets its duties, including, but not limited to, compliance with the Cover Tests and the Statutory 100% Individual LTV Limit.

VIII. MORTGAGE LOANS – ELIGIBILITY CRITERIA

Mortgage loans included in the issuer's cover pool(s) are subject to certain conditions, including that: (i) the mortgaged real property must be located in the Czech Republic or in an EEA country; (ii) compliance with the Statutory 100% Individual LTV Limit is ensured (which is, however, set as a soft limit rather than as a strict eligibility criterion, whilst, to the extent the nominal value of an individual mortgage loan exceeds such limit (and only to that extent), it will be partially disregarded for the purpose of the Cover Tests; and (iii) there may not be any other mortgage or similar third-party right attached to the mortgaged real property having the same or priority ranking to those mortgage rights securing mortgage loan receivables (or a part of them) used as a cover (if this condition is not met, the nominal value of the relevant mortgage loan is equal to zero for the purposes of the Statutory 85% Limit).

Additionally, in the case of default of a borrower under the relevant mortgage loan pursuant to Section 178 of the CRR (or if a stricter condition set out in the relevant terms and conditions is met), the nominal value of the relevant mortgage loan receivable in the cover pool will be equal to zero (i.e. decreased by 100%) for the purpose of calculating the Cover Tests.

IX. VALUATION METHODS

The value of each cover asset included in the particular cover pool is, for the purpose of calculating the Cover Tests, expressed in its nominal value, with the exception of a Derivative which is expressed at its fair (or real) value in accordance with the applicable international accounting and financial reporting standards.

Under the New Czech Covered Bonds Rules:

(a) any positive fair (or real) value of a Derivative in the cover pool will be taken into account only up to the amount of accepted security or collateral in respect of the Derivative in the form of cash or a receivable against or guaranteed by (i) an OECD member state; (ii) a central bank of an OECD member state; or (iii) a multilateral development bank or an international organisation whose member is an OECD member state; and

(b) any negative value of a Derivative in the cover pool will be disregarded, and consequently, the negative fair (or real) value of the Derivative becomes a part of the relevant covered block as a debt for whose cover the cover pool serves, unless the issuer has provided to the counterparty a security or collateral in respect of the Derivative in the form of cash or a receivable referred to under (a) above, which security or collateral is part of the relevant covered block.

In the case of mortgage covered bonds, the mortgage lending value of the mortgaged real property is determined exclusively by the issuer on the basis of the issuer's internal rules while respecting overall evaluation of the respective mortgaged real property with special regard to:

(a) characteristics of the mortgaged real property which are sustainable on a permanent and a long-term basis;

(b) income achievable by a third party operating the mortgaged real property with due care;

(c) rights and encumbrances attached to the mortgaged real property; and

(d) conditions prevailing on the local real property market and anticipated development of that market.

These conditions are similar, yet not identical to those set out in Article 4(47) of the CRR. The mortgage lending value determined by the issuer in accordance with these principles may not exceed the *open market value* of the mortgaged real property. The valuation is exercised by issuer's surveyor (both internal and external). Having said that, the reference to *open market value* is not entirely precise as the relevant Czech property valuation law stipulates that a structure is to be valued by the cost method, revenue method, comparative method or by a combination of these methods, whereas a plot of land (and in particular a construction site) is to be valued by multiplying the area of the plot of land by the price per square meter given in the pricing map issued by the local authority concerned.

X. ENHANCED PROTECTION AND FULL RING-FENCING IN INSOLVENCY

The New Czech Covered Bonds Rules bring about major changes in the applicable insolvency regime in respect of covered bonds and the cover pool or cover pools of an issuer of covered bonds.

The Czech Insolvency Act explicitly provides that cover pool(s) do not constitute a part of the issuer's insolvency estate and are fully segregated and ring-fenced from any other (general) assets of the issuer which fall within the issuer's insolvency estate, regardless of whether the aggregate value of these assets is lower or higher than the limits set out in the Czech Act on Bonds. The Czech Insolvency Act further provides that: (i) the automatic acceleration of debts from covered bonds as a result of the commencement of insolvency proceedings and declaration of bankruptcy in relation to the assets of the issuer shall not apply (which on its own represents an extremely credit positive change compared with the previous regulatory regime); (ii) neither the commencement of the insolvency proceedings against the issuer, the issuing of a decision on insolvency of an issuer nor the declaration of bankruptcy in relation to the assets of an issuer shall affect the covered block(s) (especially the satisfaction and maturity of debts that are part of such covered block(s)); and (iii) the insolvency administrator must not intervene in the administration of the covered block (which is entrusted to the involuntary administrator) and must render assistance to the involuntary administrator of covered blocks.

XI. INVOLUNTARY ADMINISTRATOR OF COVERED BLOCKS

Upon commencement of the insolvency proceedings in respect of an issuer of covered bonds or its assets, the CNB will, without undue delay, appoint an involuntary administrator of covered blocks in order to ensure proper management of the covered blocks. The involuntary administrator of covered blocks may only be a Czech bank or a foreign bank with its registered office in another EEA country that issues securities comparable to covered bonds or that administers assets comparable to cover assets and it cannot be a person in respect of which there is a risk of a conflict of interests.

The involuntary administrator of covered blocks is entrusted with full administration of all covered blocks of the relevant issuer and may agree an obligation both for the benefit and to the detriment of a covered block in order to improve liquidity or hedge against risk.

The involuntary administrator of covered blocks must, without undue delay after its appointment, open an account with a bank in order to accept payments, and inform the persons whom this may concern about an unequivocal identifier of such account. Any other person that receives a payment in favour of the cover pool will, without undue delay, transfer it to such account or to the involuntary administrator of covered blocks in favour of the relevant cover pool.

The involuntary administrator of covered blocks may:

(i) transfer the relevant covered block to another eligible entity and entrust it with its administration (whilst a transfer made without the consent of the CNB shall be disregarded);

(ii) conduct a proportional decrease (a *pari passu* haircut) of debts belonging to the covered block; or

(iii) liquidate the cover assets (cover pool(s)) and consequently proceed with early repayment of the covered bonds.

In all instances, only the CNB's consent is required and the CNB will only grant its consent provided that any of these actions is in the best interest of the holders of covered bonds. The effectiveness of the transfer, the *pari passu* haircut, or the liquidation towards third parties does not require any other (prior or subsequent) public or private consent or notification.

XII. COMPLIANCE WITH EUROPEAN LEGISLATION AND RISK-WEIGHTING

The New Czech Covered Bonds Rules now enable an issuer of covered bonds to fully comply with not only:

(i) the requirements of Article 52(4) of the UCITS Directive (c) which allows standard (i.e., UCITS-compliant) funds to invest up to 25% of the fund's assets in covered bonds meeting certain criteria), but also

(ii) the CRR criteria (the Article 129 of the CRR in particular) or other rules implementing the CRR in relation to covered bonds.

Besides the CRR, the risk-weighting of covered bonds is also regulated by the CNB Decree No. 163/2014 Coll., on the Performance of the Activities of Banks, Credit Unions and Investment Firms, as amended.

XIII. TRANSITIONAL PROVISIONS AND GRANDFATHERING

Transitional and grandfathering provisions contained in the Amendment enable an issuer to decide whether to opt in the new covered bond regime (in respect of any mortgage covered bonds issued before 4 January 2019) or not.

The relevant issuer may do so by changing the relevant terms and conditions of a series of covered bonds in order to comply with the requirements of the new legislation, whilst the consent of the bondholders' meeting will not be required for such a change provided that such a change is done within 48 months upon the New Czech Covered Bonds Rules entry into force (i.e., until 4 January 2021).

If the issuer decides not to opt in the new legislation, any legal relations arising under mortgage covered bonds issued before 4 January 2019 will be grandfathered and will continue to be governed pursuant to the Czech Act on Bonds in the wording effective before the effectiveness of the New Czech Covered Bonds Rules (i.e., prior 4 January 2019).

Issuers: Česká spořitelna, a.s., Hypoteční banka, a.s.*, Komerční banka, a.s., Raiffeisenbank a.s., Sberbank CZ, a.s., UniCredit Bank Czech Republic and Slovakia, a.s., Wüstenrot hypoteční banka a.s., Equa Bank a.s.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/112/Czech_Republic_Covered_Bonds

3.11 DENMARK

By Mette Saaby Pedersen, Finance Denmark, Svend Bondorf and Anton Holmgaard Nielsen, Nykredit

I. FRAMEWORK

In Denmark the legal basis for covered bond issuance is the Danish Mortgage-Credit Loans and Mortgage-Credit Bonds etc. Act (the "Mortgage Act") (*Lov om realkreditlån og realkreditobligationer mv.*) and the Danish Financial Business Act (*Lov om finansiel virksomhed*). The Mortgage Act is applicable only to Danish mortgage banks. The mortgage banks are specialised banks. The Capital Requirements Regulation (CRR) is directly applicable to the commercial banks and the mortgage banks.

Specific bankruptcy regulations laid down in the Financial Business Act and the Mortgage Act prevail over general bankruptcy regulations (sections 247a-247i of the Financial Business Act and sections 22-33 of the Mortgage Act).

II. STRUCTURE OF THE ISSUER

The Danish Financial Supervisory Authority (FSA) may license mortgage banks, commercial banks and ship financing institutions[1] to issue covered bonds.

Until 1 July 2007, only mortgage banks were allowed to issue mortgage covered bonds. Since this date, also commercial banks can obtain a license to issue covered bonds.

This leads to the existence of three types of Danish covered bonds:

> Særligt Dækkede Obligationer (SDOs) issued by either commercial or mortgage banks. SDOs are both UCITS (Article 52(4)) and CRR compliant (Article 129).

> Særligt Dækkede Realkreditobligationer (SDROs) issued exclusively by mortgage banks, fulfil the former as well as the new legal requirements. SDROs are both UCITS (Article 52(4)) and CRR compliant (Article 129).

> Realkreditobligationer (ROs) issued exclusively by mortgage banks. ROs are UCITS compliant (Article 52(4)).

In addition, all ROs issued before 1 January 2008 have maintained their covered bond status in accordance with the grandfathering option under the CRR. The grandfathered bonds are both UCITS (Article 52(4)) and CRR (Article 129) compliant.

Danish mortgage banks operate subject to a specialist banking principle in accordance with Danish legislation, which confines the activities of issuers to the granting of mortgage loans funded by the issuance of covered bonds. The cover pool may include unsecured loans to public authorities and guarantees issued by public authorities, but this is rarely used. Mortgage banks may also carry on other business related to mortgage banking.

The specialist banking principle implies that mortgage banks are confined to granting loans that meet the requirements for cover assets imposed by legislation. Similarly, the funding sources are limited to ROs, SDOs and SDROs. This is due to the fact that Danish mortgage banks are not allowed to accept deposits, etc. as a source of funding, cf section 8 of the Financial Business Act.

The issuer (mortgage bank or commercial bank) holds the cover assets on its balance sheet as well as all rights under the cover assets. Bonds and cover assets are assigned to individual capital centers in mortgage banks and to registers in commercial banks. The individual bonds, however, are not linked to individual mortgage loans.

Issuers have their own employees. Outsourcing of activities is allowed if control measures are deemed satisfactory by the FSA, and consumer protection regulations are observed.

1 Ship financing institutions are regulated by the Act on a Ship Financial Institute (Consolidating Act no 851-25 June 2014).

III. COVER ASSETS

Assets eligible as the basis for mortgage covered bond issuance:

SDO	SDRO	RO
> Loans secured by real property > Exposures to public authorities > Exposures to credit institutions (up to a maximum of 15% (CQS 1)/10% (CQS 2)) > Collateral in ships (not an option for mortgage banks)	> Loans secured by real property > Exposures to public authorities	> Loans secured by real property > Exposures to public authorities

To serve as cover assets, mortgages must be entered in the Danish land register, which is kept by the Danish district courts. Land and loan registration has been digital since 2009 with faster and more efficient handling of customers' loans as a result.

The mortgage loans are originated in a mortgage bank or a credit institution in the same group, or transferred to a mortgage bank according to a structure in which the mortgage bank has knowledge of and is responsible for correct valuation of the mortgaged property and verification of the debtor's creditworthiness and ability to pay.

The difference between funding and lending may be hedged through derivatives, which are included in the cover pool assets.

In a capital centre in a mortgage bank the cover pool is dynamic as a result of the current addition and disposal of loans in connection with the granting and repayment of loans. In most capital centers assets may exclusively be transferred to or from the cover pool upon new lending and (p)repayment. On (p)repayment, the corresponding amount of issued bonds will be redeemed from the capital center. Each mortgage loan (cover asset) refers to specific ISIN codes and both cover assets and ISIN codes are assigned to specific capital centers. It is therefore not possible for the issuer to (i) change the cover pool unless in connection with new lending and (p)repayment nor (ii) transfer cover assets between different cover pools. Cover assets must be identifiable, and the FSA supervises cover asset identification.

IV. VALUATION AND LTV CRITERIA

The financial legislation contains provisions on property valuation. Valuations are based on the open market value of a property.

LTV limits – an overview

Loan Type / Property category	SDO	SDRO	RO
Residential property	80% or 75%$^{1)}$	80% or 75%$^{1)}$	80%
Holiday property	75%$^{2)}$	75%$^{2)}$	75%$^{2)}$
Agricultural property	60%$^{3)}$	60%$^{3)}$	70%
Commercial property	60%$^{3)}$	60%$^{3)}$	60%

Note: 1) 80% for loans issued with up to 30 years maturity and 10 years interest-only period and 75% for loans with an unlimited maturity and interest-only period.
2) 75% for holiday property for private use. The LTV limit is 60% for holiday property for commercial use.
3) The LTV can be raised to 70% if the bank adds additional collateral.

In connection to the issuance of SDOs and SDROs, mortgage banks and commercial banks must ensure continuous LTV compliance – i.e. not just at disbursement of the loan as is the case for ROs. Where an LTV ratio exceeds the statutory limits, the bank must add supplementary collateral to the capital center/register. Otherwise, the issues may lose their status as SDOs or SDROs.

Mortgaged property is valued (on-site inspection) as part of the processing of loan applications. When a loan is granted, the LTV thereof is assessed on a case-by-case basis. A basic principle of the valuation regulations is that valuations must be performed by a valuation officer of an issuer. Provided that a number of conditions are met, valuations may be outsourced. AVMs may also be used if approved by the Danish FSA and most Danish mortgage banks have got an approval to use own models. The detailed conditions for valuation are set out in the financial legislation.

V. ASSET – LIABILITY MANAGEMENT

The financial legislation and the Executive Order on bond issuance, balance principle and risk management require mortgage banks and commercial banks to observe a balance principle and a set of rules on risk management in connection with the issuance of RO, SDRO and SDO.

The Executive Order provides limits to the scope of differences allowed on one hand the payments from borrowers and on the other hand the payments to the holders of the issued ROs, SDROs and SDOs. The limits are adjusted by loss limits to the interest rate, foreign exchange, option and liquidity risks that follow from cash flow differences in the balance sheet. The Executive Order also contains a number of other provisions limiting financial risk.

For commercial banks, the balance principle is applicable at register level. For mortgage banks, the balance principle is applicable at the level of the individual capital centers and the banks in general.

Despite the risk limits of the balance principle, Danish mortgage banks have in practice structured their mortgage lending business in such a way that they do not assume significant financial risks with respect to mortgage lending and funding. Thus, the mortgage banks have nearly eliminated interest rate risk, foreign exchange risk and prepayment risk.

Since mortgage bond issuance is the only eligible funding source for Danish mortgage banks, issuance takes place on a daily basis. The mortgage bank commonly achieves this through *tap issuance*. Each loan is closely matched to the future cash flow of one or several specific ISIN codes currently open for issuance. On any given banking day, the mortgage bank calculates the bond amounts to be tapped in the relevant ISINs corresponding to the loans disbursed that day. These bond amounts are then issued and sold to investors. These simple principles ensure that the balance principle is maintained day by day and minimises the subsequent need for active asset-liability management.

A typical mortgage ISIN is open for tap issuance for several years after opening. Issuance trades are executed alongside with other trades in a unified, highly liquid and tightly priced market. Thus, there is no strict distinction between primary and secondary markets in the Danish system.

The Danish commercial banks too, are subject to the strict ALM rules. In practice the commercial banks operate under a general asset and liability management and do not offer pass-through products.

Refinancing risk in a situation where a mortgage bank is unable to complete the refinancing of matured bonds on market terms is addressed in the legislation. The regulation applies to covered bonds where the loan term is longer than the maturity of the bond used to fund it and contains a soft bullet mechanism controlled by two triggers: a refinancing failure trigger and an interest rate trigger. The refinancing trigger automatically extends the maturity of the covered bonds by 12 months at a time in case the issuer is unable to refinance maturing covered bonds by new issuance. The mechanism is not exercisable at discretion of the issuer, but it is conditional on the specific market event of "no refinancing". The interest rate trigger, which applies solely to bond maturities of 2 years or less, comes into effect in case of a 5% point bond yield increase over the last year before ordinary maturity. This trigger may extend the bond maturity by 1 year.

According to the legislation, the capital base must represent at least 8% of risk-exposure amount (REA). Mortgage banks must observe the capital adequacy requirement both at individual capital center level and at the level of the institution. Overcollateralisation forms part of the cover pool.

VI. TRANSPARENCY

A high level of transparency is an important characteristic of the Danish covered bond market. The Danish covered bond issuers publish information via many different platforms, such as prospectuses, investor reports, trading venues, standardised transparency templates and issuers' investor relations websites. Information is thus easily accessible.

As part of the ECBC Label Initiative, the Danish issuers report information in the standardised format in the Harmonised Transparency Template (HTT). In addition, the Danish market participants have gathered available information and consolidated it in an intuitive and user-friendly structure in a national transparency template (NTT).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Specialised supervision of covered bond issuers is carried out by the Danish FSA (Denmark has not joined the single supervisory mechanism – SSM). The FSA supervises compliance with the legislative framework for carrying on mortgage banking activities and thereby the issuance of covered bonds.

The issuer monitors the cover pool continuously. Data from every single loan offer from the Danish mortgage banks and thus all property valuations for new lending purposes are reported to the FSA on a quarterly basis. The FSA performs random checks of mortgage banks' valuations by way of on-site inspections and by checks of the internal valuation reports and which other property has been used as reference to the basis for the valuation. In the Danish mortgage model where loans are originated, serviced and redeemed directly in the cover pool, there is no need for monitoring other than as provided by the FSA.

The commercial banks report on a quarterly basis to the FSA on the assets in the register. The statement of the registered assets must be verified by the external auditor of the bank.

Issuers are also required to prepare comprehensive reports on asset-liability management for the FSA on a quarterly basis. The FSA must be informed of any balance principle breaches without delay. If the capital requirement is not observed, the FSA must be informed without delay.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Capital centres of mortgage banks (regardless of whether the issuer has issued ROs, SDROs or SDOs)

The rules for resolving a mortgage bank are detailed and well considered. The main considerations are to ensure (i) that bond investors receive timely payments and (ii) that the rights of borrowers are not prejudiced materially.

Balance sheets of Danish mortgage banks are structured with a number of separate capital centres (cover pools) out of which covered bonds are issued. A capital centre consists of a group of series in which covered bonds backed by an equivalent amount of mortgage loans (match funding) are issued and a joint series reserve fund (equity). In addition, supplementary capital (senior secured debt/Section 15 bonds) may be issued out of the capital centre for overcollateralisation purposes.

If a mortgage bank is declared bankrupt, a trustee in bankruptcy is appointed. The Danish FSA may declare a mortgage bank bankrupt.

The trustee looks after the interests of the estate in bankruptcy, i.e. the interests of the creditors and particularly the covered bond investors in relation to the individual capital centres. Today, the creditors of a mortgage bank are almost exclusively covered bond investors. The trustee must seek the most efficient administration of the estate, having regard to the fact that the position of covered bond investors and borrowers must remain essentially as if the capital centre had still been a going concern. If a mortgage bank is declared bankrupt, no acceleration therefore takes place in respect of covered bond investors or borrowers. This is the key principle. It is only possible because the mortgage system is structured around capital centres that offer very high statutory collateral for bonds based on ring-fenced, bankruptcy-remote capital centres and match-funded lending.

Winding-up is not fast, but orderly, with a minimum of changes for both bond investors and borrowers. No public funds are used for such winding-up, as borrowers' ongoing payments are passed through to bondholders. Holders of hybrid core capital and subordinate loan capital cannot use the bankruptcy of a mortgage bank as grounds for a claim of default. Similar rules apply to counterparties to financial instruments used to hedge risk in a capital centre.

If a mortgage lender is declared bankrupt, the assets, after deduction of estate administration costs, will be segregated to satisfy bond holders, etc., in accordance with their legal position as secured creditors. Covered bond holders have a primary secured claim against all assets in the cover pool. Counterparties to financial instruments used to hedge risk in a capital centre rank pari passu with covered bond holders in the relevant capital centre.

Proceeds from loans raised for the purpose of overcollateralisation (senior secured bonds/Section 15 bonds) will serve to satisfy the claims of covered bond holders in case of bankruptcy.

The EU Bank Recovery and Resolution Directive (BRRD) has been implemented in Danish regulation and came into force on 1 June 2015. The bail-in tool does not apply to covered bonds (SDO, SDRO and RO) and senior secured debt/Section 15 bonds. While exempt from bail-in, the Danish mortgage banks is subject to a debt buffer of unweighted loans. The minimum level of the buffer is 2%. For systemic mortgage banks and mortgage banks being part of a systemic financial group, a higher buffer requirement may be set. The total amount of the capital requirement and debt buffer (and MREL requirement) should always be at least 8% of total liabilities (at consolidated level). The higher level of the buffer will be phased in by 2022.

In case of resolution the debt buffer can be used by the resolution authority (in Denmark the resolution authority is Finansiel Stabilitet) to capitalise the mortgage banks when using BRRD resolution tools other than the bail-in tool. These tools can only be used according to the principle of "no-investor-worse-off". Otherwise the winding-up will be handled according to the abovementioned principle.

Commercial bank registers

A commercial bank sets up a register segregating assets, which exclusively serve as SDO cover assets.

As is the case with mortgage banks, derivative counterparties have a primary preferential right in line with the SDOs provided that the derivatives contract stipulates that the suspension of payments or bankruptcy of a commercial bank does not constitute an event of default. Bonds issued to secure assets as compensation for LTV excess or overcollateral in general (also referred to as Section 15 bonds or senior secured bonds) have a secondary preferential right to all assets of the register.

The register is kept by the commercial bank and must at all times contain all assets, guarantees received and derivatives contracts, clearly individualised. The commercial bank must submit statements of the assets to the FSA. The external auditor must perform continuous regular control of the register and at least twice a year make unannounced register audits.

Where the FSA suspends the license of a commercial bank to carry on banking business, the FSA or the bank files a bankruptcy petition, or the bank is adjudicated bankrupt following the petition of a third party, the FSA will decide whether the register is to become subject to administration by an administrator as an estate in administration. The administrator (and not the ordinary trustee) will be in charge of the assets of the register.

Any unsatisfied residual claims by SDO holders and derivative counterparties against the register may be proved against the assets available for distribution of the commercial bank, but – contrary to the proceedings related to mortgage banks – exclusively as ordinary claims. Residual claims from Section 15, bonds or senior secured bonds may also be proved as ordinary claims against the assets available for distribution.

The register is – contrary to the capital centres of mortgage banks – not subject to any specific statutory minimum requirement as to capital adequacy. The 8% capital adequacy requirement must only be fulfilled at the level of the commercial bank.

IX. RISK-WEIGHTING AND COMPLIANCE WITH EUROPEAN LEGISLATION

SDOs, SDROs and ROs fulfil the criteria of Article 52(4) UCITS. SDOs and SDROs also fulfil the requirements of Article 129 CRR[2]. ROs issued before 1 January 2008 maintain the low risk weighting of 10% throughout the maturity of the bonds in accordance with the grandfathering option under the CRR. ROs issued after 1 January 2008 carry a risk weight of 20%. ROs, SDOs and SDROs are eligible for repo transactions and may be used as collateral for loans with the Danish central bank (Danmarks Nationalbank). Under the LCR the largest RO, SDO and SDRO series qualify as assets of the highest quality (Level 1 covered bonds).

When investing in ROs, SDOs and SDROs, the Danish investment legislation allows UCITS, to exceed the usual limits on exposures to a single issuer. Thus, acknowledging the reduced risk associated with covered bond assets (cf. the Act on Investment Associations and Special-Purpose Associations as well as other Collective Investment Schemes etc.).

Issuers: Covered bonds backed by real estate collateral are primarily issued by the specialised mortgage banks: Jyske Realkreditt a/s, DLR Kredit A/S, LR Realkredit A/S, Nordea Kredit Realkreditaktieselskab, Nykredit Realkredit A/S (incl. Totalkredit A/S), Realkredit Danmark A/S. At the end of 2019 the mortgage banks' outstanding volume of covered bonds was EUR 396 bn. Danske Bank A/S is the only commercial bank issuing covered bonds. Danske Bank has issued non-pass-through (euro-style) covered bonds of a value of around EUR 17bn. Danish Ship Finance is the only Danish issuer of covered bonds backed by ship loans. The outstanding volume of covered bonds backed by ships as collateral was EUR 6.1 bn by year end 2019.

ECBC Covered Bond Comparative Database:
https://www.ecbc.eu/framework/89/Realkreditobligationer_-_RO
https://www.ecbc.eu/framework/87/S%C3%A6rligt_D%C3%A6kkede_Obligationer_-_SDO
https://www.ecbc.eu/framework/88/S%C3%A6rligt_D%C3%A6kkede_Realkreditobligationer_-_SDRO

COVERED BOND LABEL : Jyske Realkredit A/S (1 pool), Danske Bank A/S (3 pools), DLR Kredit A/S (1 pool), Realkredit Danmark A/S (2 pools), Danish Ship Finance A/S (2 pools), Nordea Kredit Realkreditaktieselskab A/S (2 pools), Nykredit Realkredit A/S (2 pools).

2 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.12 ESTONIA

By Reimo Hammerberg, Jane Eespõld and Oliver Ämarik, Law Firm Sorainen

I. FRAMEWORK

On 13 February 2019, the Estonian Parliament adopted a legislation on covered bonds in Estonia. The law entered into force 1 March 2019. This is the first legislation that provides the possibility to issue covered bonds in Estonia. The application for approval of a covered bond prospectus to the Estonian Financial Supervisory Authority (hereinafter the EFSA) can be submitted and covered bonds issued as of 1 October 2019.

At the beginning of 2020, first issue of covered bonds was carried out by Estonian issuer which also constituted as a first covered bond from the Baltic region. An issue with a maturity date of 5 years and in the size of EUR 500mn was carried out by Luminor. The covered bonds were listed on the Irish Stock Exchange on 11 March 2020.

At the beginning of June 2020, also another Estonian bank (LHV) issued its covered bonds. Thus, we would supplement this paragraph with the following wording: In June 2020, another Estonian bank – LHV – issued its covered bonds (with a maturity date of 5 years and in the size of EUR 250mn) which were also listed on the Irish Stock Exchange.

II. STRUCTURE OF THE ISSUER

Covered bonds can be issued by a credit institution which has obtained also an additional authorisation to issue covered bonds from the EFSA.

For obtaining such additional authorisation credit institution has to have in place technology and other technological tools and systems, security systems, control mechanisms and systems necessary for the issuance of covered bonds and the administration of covered bond portfolios. Moreover, it has to have a risk management system that enables the issuer to adequately identify, measure and manage the risks associated with the administration of the covered bond portfolio.

The pool of cover assets will be kept by the issuer itself and it will not be held by SPV. This means that , the issuer has to maintain a separate cover register for both below types of covered bonds. The purpose of the cover register is to collect, systematise and store data about the cover pool required for mortgage covered bonds and mixed asset covered bonds. The register is kept in accordance with the internal rules that state the procedure of entering and deleting assets in the register. The entry of the register states information, which is necessary to detect the contract or security that is the basis of the claim.

Lastly, the issuer has to appoint a cover pool monitor who monitors the performance of the duties of the issuer. In specific, whether the cover pool, cover register, the valuation of immovable properties encumbered with a mortgage securing credit and included in the cover pool, the issuer's risk management and reporting, and the terms and conditions of covered bonds are in compliance with the requirements of the law.

III. COVER ASSETS

Primary cover assets

At least 80% of the main collateral of the relevant covered bond portfolio has to comprise of primary cover assets. The law constitutes different primary cover assets for mortgage covered bonds and mixed covered bonds.

Firstly, the primary cover assets of mortgage covered bonds can be only the issuer's claims that arise from a credit granted to a natural person against a mortgage that is established on a residential property situated in the territory of a European Economic Area (hereinafter EAA) country.

And secondly, the primary cover assets of mixed covered bonds can be only the issuer's claims that arise from the following:

1) a mortgage credit;
2) housing construction credit – a credit granted to a natural person against a mortgaged residential building plot situated in the territory of an EEA country;
3) commercial mortgage credit – a credit granted to a legal person against a mortgaged residential property, mortgaged residential building plot or mortgaged commercial immovable property situated in the territory of an EEA country;
4) a credit granted to, or debt securities issued by, an EEA country;
5) a credit granted to, or debt securities issued by, a regional government or local authority of an EEA country;
6) a credit granted to, or debt securities issued by, an EEA country's legal person governed by public law;
7) a credit or debt securities guaranteed by an EEA country or a regional government or local authority of an EEA country.

Substitute collateral

In addition to primary cover assets, the cover pool may consist of substitute collateral. Substitute collateral may be:

1) claims on or guaranteed by central banks within the European System of Central Banks, and central governments, public sector entities, regional governments or local authorities of the Member States of the EU;
2) claims on or guaranteed by third-country central governments and central banks, multilateral development banks and international organisations that qualify for the credit quality step 1[1];
3) claims on or guaranteed by third-country public sector entities, regional governments and local authorities, for which a risk weight has been assigned the same way as for claims on credit institutions and investment firms or central governments and central banks and which qualify for the credit quality step 1 according to the risk weight so assigned;
4) claims specified in p-s 2) and 3), which qualify as a minimum for the credit quality step 2, provided that they do not exceed 20% of the nominal value of the outstanding covered bonds in the covered bond portfolio that they cover;
5) claims on credit institutions and investment firms, which qualify for the credit quality step 1, provided that they do not exceed 15% of the nominal value of the outstanding covered bonds in the covered bond portfolio that they cover;
6) claims on credit institutions and investment firms in the EU with a term to maturity not exceeding 100 days, which qualify as a minimum for the credit quality step 2, provided that they do not exceed 15% of the nominal value of the outstanding covered bonds in the covered bond portfolio that they cover;
7) net claims arising from derivative instruments that meet the conditions provided by law, which cannot be treated as the claims specified in p-s 5) or 6), provided that they do not exceed 12% of the nominal value of the outstanding covered bonds in the covered bond portfolio that they cover.

1 A CQS is a simplified and standardized scale of credit quality, mapped to the credit ratings of the largest credit rating agencies. Steps are defined in Commission Implementing Regulation (EU) 2016/1800 of 11 October 2016 laying down implementing technical standards with regard to the allocation of credit assessments of external credit assessment institutions to an objective scale of credit quality steps in accordance with Directive 2009/138/EC of the European Parliament and of the Council. Moreover, the assessment has to be in accordance with Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

IV. VALUATION AND LTV CRITERIA

Valuation and revaluation

The law states that the valuator of the property standing as security for mortgage credit has to comply with the following requirements:

> has sufficient knowledge, experience and skills;

> be sufficiently independent from the process of deciding on the granting of credit so as to provide an objective and impartial assessment of the value of the immovable property.

The requirements for the appraisal of immovable property standing as security are the following:

> the immovable will be valuated according to the good practice of property valuation, that is based on uniform and well-established market practice;

> it is in line with the good practice of property valuation;

> the valuator detects and collects all the data necessary for the valuation and analyses all factors affecting the value of the property that is being evaluated;

> the valuation is based on up-to-date and reliable data and based on an in-depth review.

The value of a property standing as security for a mortgage credit entered in the cover register, must be regularly reviewed at least once a year and revaluated, if necessary. The purpose of the revaluation of the property is not to obligate the issuer to change the value of the property each time, but to review the property in the portfolio in general and to update it, based on the information available for the issuer, in case there has been a change in the value of the assets.

The value of a property standing as security for a mortgage credit, entered in the cover register, must extraordinarily be reviewed and revaluated, in the event of a significant change in market conditions, and in the event that the information available to the issuer, indicates that a significant decline has occurred or is occurring on the national or local real estate market, including if it concerns only one specific property type, residential building type or other narrower category of properties.

Loan to Value

The claims of an issuer arising from a mortgage credit may be used as a cover asset of mortgage covered bonds in an amount of up to 70% of the value of the property securing the mortgage credit. Nevertheless, all the issuer's claims arising from the mortgage credit entered in the cover register are included in the cover pool in their entirety.

A mortgage accounting for at least 110% of the issued credit amount must be established on the property securing a mortgage credit to be entered in the cover register. The sum of the mortgage may exceed the value of the property securing the credit.

V. ASSET – LIABILITY MANAGEMENT

An issuer must, at least once every 3 months, perform a stress test on the covered bond portfolio to assess the risks set out in the stress testing methodology according to the internal rules. The managers of the issuer are responsible for ensuring the performance of stress tests.

If the value of the cover pool, as calculated during the stress test, no longer meets the following requirements, the cover assets in the cover register must be increased by the maximum deficiency determined as a result of the stress test:

1) The present value of all covered bonds of the same type and the net liabilities arising from derivative instruments entered in the cover register must be covered by a cover pool at any time. The present value of the cover pool must exceed the liabilities covered by at least 2%.
2) The nominal value of all covered bonds of the same type must be covered by a cover pool of at least equivalent nominal value at any time. If the known redemption value of covered bonds is higher than their nominal value at the time of issuance, all covered bonds of the same type must be also covered by a cover pool whose nominal value is at least equal to the redemption value of the covered bonds. The nominal value of the credits must be deemed equal to the outstanding amount of the credits.
3) If the nominal value of the cover pool exceeds the nominal value of all the covered bonds of the same type by at least 5%, it must be presumed that the requirement in p 1) is met for the relevant covered bond portfolio.

VI. TRANSPARENCY

In Estonia there is no establishment of the National Transparency Template. Covered bonds issued by a credit institution registered in Estonia, which has received additional authorisation from the EFSA are registered in the Estonian register of securities. The EFSA publishes a decision to grant, amend or revoke an additional authorisation on its website no later than on the business day following the day of making such decision.

In addition to the disclosure obligation arising from other legislation, an issuer must disclose information about covered bond portfolios once a quarter. Information about the first 3 quarters of a year must be disclosed within 1 month of the end of the respective quarter. Information about the fourth quarter must be disclosed within 2 months of the end of the quarter. The disclosed information must be available on the issuer's website about at least the last 5 years.

The following information must be disclosed based on the types of covered bond portfolios:

1) the nominal value and the present value of outstanding covered bonds and of the cover pool;
2) the maturity structure of the covered bonds and the cover pool;
3) the percentage of fixed-interest cover assets in the cover pool and the percentage of fixed-interest covered bonds in the liabilities of the covered bond portfolio;
4) the graduated breakdown of the interest rates on fixed-interest and non-fixed-interest cover assets;
5) the percentage of cover assets denominated in a foreign currency in the cover pool and the percentage of covered bonds denominated in a foreign currency in the liabilities of the covered bond portfolio;
6) the geographical distribution of the value of cover assets, at least to the accuracy of the country, based on the location of the property standing as security for a mortgage credit or commercial mortgage credit, and the location of the debtor or issuer in the case of other cover assets;
7) the distribution of substitute collaterals, in terms of their value, between the types of substitute collateral;
8) the level of the liquidity buffer;
9) the percentage of the amount of substitute collaterals, which have been in default for over 90 days or which the issuer estimates to be doubtful, in the cover pool.

In addition, the following information must be disclosed on the primary cover assets of mortgage covered bonds:

1) the graduated breakdown of the amounts of mortgage credits;
2) the percentage of the amount of mortgage credits, which have been in default for over 90 days or which the issuer estimates to be doubtful, in the cover pool.

In addition, the following information must be disclosed on the primary cover assets of mixed asset covered bonds:

1) the graduated breakdown of the amounts of debt obligations;
2) the distribution of debt obligations, in terms of their value, between the types of primary cover assets of mixed asset covered bonds;
3) the percentage of the amount of debt obligations, which have been in default for over 90 days or which the issuer estimates to be doubtful, in the cover pool.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The issuer's general meeting has the authority to appoint a monitor. A monitor is appointed for a term that must not be less than 1 year. The monitor inspects whether the issuer is fulfilling its obligations. The monitor is free to choose when the inspections will be carried out.

The duties of a monitor are to verify:

1) the compliance of stress testing of a covered bond portfolio and the changes introduced to the covered bond portfolio as a result of stress testing with requirements;
2) the existence of a sufficient cover pool and its compliance with requirements;
3) the compliance of the maintenance of the cover register with requirements;
4) the compliance of the valuation of immovable properties encumbered with a mortgage securing credit and included in the cover pool with requirements;
5) the compliance of the issuer's risk management and reporting with requirements;
6) the compliance of the terms and conditions of covered bonds with requirements.

The monitor notifies the issuer of any deficiencies detected during verification in a format that can be reproduced in writing and sets a reasonable deadline for the elimination of the deficiencies. In case the deficiencies are not fully eliminated by that deadline the monitor must notify the EFSA.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

In case the issuer is declared bankrupt, a covered bond portfolio shall be considered to be separated from the other assets of the issuer. A cover pool shall not be part of the issuer's bankruptcy estate and a moratorium shall not extend to a covered bond portfolio.

After the separation of a covered bond portfolio, an independent pool of designated assets is formed, in which the cover pool and the proceeds received therefrom can only be used to satisfy the claims of the holders of the respective type of covered bonds and of the counterparty to the derivative instrument entered in the corresponding cover register and to cover the expenses related to the management of the covered bond portfolio.

If an issuer is declared bankrupt or the compulsory dissolution of an issuer is decided, a court shall, on the proposal of the EFSA, appoint a cover pool administrator for covered bond portfolios in the ruling on bankruptcy or the ruling on the compulsory dissolution. The appointment is necessary to secure the continuance of the operation of the cover bond portfolio, detect the solvency of the portfolio and secure the rights of the owners of cover bonds and derivative counterparties.

Upon the appointment of a cover pool administrator, the right to manage and dispose of covered bond portfolios shall transfer to the cover pool administrator. The cover pool administrator shall manage covered bond portfolios with the necessary diligence arising from their nature, and in a manner ensuring that the liabilities arising from covered bonds and from the derivative instruments entered in the cover register are met in the best possible way. To this end, the cover pool administrator shall have the right to transfer and encumber the cover pool, enter into derivative instruments on the account of the cover pool, and perform other necessary operations. The cover pool administrator shall have the right to use the cover pool and the proceeds to be received therefrom to cover the expenses necessary for the management of a covered bond portfolio.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The Estonian legislation is in compliance with the following European legislation that sets out requirements regarding covered bonds:

> Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS);

> Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012;

> Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council Text with EEA relevance.

Prior to issuing covered bonds, an issuer must adapt its risk management system to enable it to adequately identify, measure and manage the risks associated with the administration of the covered bond portfolio.

As of preparation of this country chapter, an amended version of the covered bond legislation is being prepared in Estonia in order to transpose the covered bond directive[2] into Estonian legislation as well as to harmonise Baltic States' legislation for issuing covered bonds[3]. The amended covered bonds act is planned to enter into force in July 2021.

Issuers: Luminor Bank AS, AS LHV Bank

ECBC Covered Bond Comparative Database: http://www.ecbc.eu/framework/117/Estionian_Covered_Bonds

COVERED BOND LABEL: Luminor Bank AS (1 pool).

2 Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU

3 https://www.rahandusministeerium.ee/en/news/baltic-states-will-harmonise-legislation-issuing-covered-bonds

3.13 FINLAND

By Timo Ruotsalainen, Aktia Bank plc and Bernd Volk, Deutsche Bank

I. FRAMEWORK

There are currently eight issuers of Finnish covered bonds. In Finland, the legal basis for covered bond issuance is the Act on Mortgage Credit Bank Operations (HE 42/2010). The new legal framework replaced the old Act on Mortgage Credit Bank (1999) and entered into force on 1 August 2010. The new law overruled the special banking principle and gathered all Mortgage Credit Bank related legislation under the same act. Besides, other technical changes, e.g. mixed pools, have been allowed.

The provisions of the new legal framework do not apply to covered bonds issued or derivatives contracts registered before the entering into force of the new Act. No counterparty restrictions apply and derivative counterparties are typically internal.

II. STRUCTURE OF THE ISSUER

The issuer of Finnish covered bonds can be a universal bank or a specialist mortgage bank. Generally, entities that can issue covered bonds are credit institutions authorised to engage in mortgage credit bank operations. The issuer of Finnish Covered Bonds can still be a specialised bank, but deposit banks or credit entities are entitled to apply for a licence to issue covered bonds. The existing specialised banks tend to stay in business in the way they have been operating since being established. Unless, it is a mortgage credit bank, the issuer must obtain a license to engage in mortgage credit bank operations (i.e., issue covered bonds).

The Finnish Covered Bond Law stipulates certain requirements to receive a covered bond issuance license. The covered bond issuer should provide a business plan, show stability, expertise in mortgage credit operations, risk management and practices concerning valuation of collateral. Interestingly, the requirements to receive a Finnish Covered Bond License seem very similar to the requirements to receive a German Pfandbrief License.

The issuer holds the cover assets on the balance sheet. A subsequent transfer of the cover assets to another legal entity is not taking place. A direct legal link between single cover asset and the covered bonds issued does not exist. All obligations from Finnish Covered Bonds are direct and unconditional obligations of the issuing bank as a whole. In the case of insolvency, the cover pool is segregated by law from the general insolvency estate and is reserved only for the claims of the holders of Finnish Covered Bonds.

Under the previous legal framework, only bonds covered by mortgages were issued by Finnish mortgage banks. A separate cover pool was to be established if these banks were to start the issuance of public-sector backed Finnish Covered Bonds. Under the new law, mixed pools comprising mortgage loans as well as eligible public sector assets are allowed.

III. COVER ASSETS

Finnish covered bonds have a cover pool register that includes all cover pool assets, covered bonds and derivatives. Eligible assets for Finnish covered bonds are residential mortgage loans (including shares in Finnish housing companies), commercial mortgage loans, public sector loans and substitution assets. At least 90% of the cover pool loans must consist of residential mortgage loans, public sector loans or substitution assets. Cover pool assets can be within European Economic Area (EEA) countries.

Enforcement of non-Finnish cover pool assets would usually be determined by the laws of the jurisdiction in which the assets are located. Due to European Union law, inside the EU, enforcement is safeguarded in all Member States anyway. However, Finnish issuers have so far only Finnish assets in the covered bond pools.

Derivatives may also be registered in the cover pool. The geographical scope of cover assets is restricted to the European Economic Area. Residential mortgage loans, shares in housing companies as well as commercial mortgage loans up to 10% of the total pool are eligible as cover assets. Public sector loans in accordance with Article 129(1) CRR are also eligible.

Specialised mortgage credit bank can grant an intermediate credit to a deposit bank or a credit entity. This intermediate credit must be covered with eligible cover assets as stated above. These assets must also be recorded into the cover register.

Up to 20% of the mortgage cover pool is allowed to consist of substitute cover assets; bonds and other debt obligations issued by the State, a municipality or another public-sector organisation or another credit institution rather than one belonging to the same consolidation group as the issuer. A guarantee as for own debt granted by a public sector organisation or credit institution referred above; a credit insurance given by an insurance company other than one belonging to the same group, referred to in the Act on Supervision of Finance and Insurance Groups; cash assets of the issuer deposited in the Bank of Finland or a deposit bank with the restriction that if the issuer is a deposit bank the cash deposit may not be in a deposit bank belonging to the same consolidation group as the issuer.

ABS or MBS tranches are not eligible for the cover pool. Derivatives are eligible for the cover pools only if they are used for hedging purposes. The nature of the cover pool is dynamic. Currency risk is perfectly matched, as the law requires cover assets to be in the same currency as the covered bonds.

IV. VALUATION AND LTV CRITERIA

The property valuation within the legal framework for covered bonds in Finland is based on market values, valuations are based on “current value”, market value determined in accordance with FFSA regulations. Based on the updated regulation, the issuer needs to monitor the valuation of the property also based on statistical methods (indexed value) quarterly and set limits for the acceptable changes of the values. Should the value exceed or drop below the limits the property valuation needs to be updated accordingly.

There are different LTV levels for residential and commercial mortgage loans: 70% of the value of the residential property and 60% of the value of the commercial property accepted. This LTV is a relative limit, i.e. when a loan exceeds the 60%/70% limit, the part of the loan up to 60%/70% LTV remains eligible to the cover pool. A loan placed as collateral for a covered bond may not exceed the current value of the property standing as collateral.

V. ASSET – LIABILITY MANAGEMENT

There are legal standards for Asset-Liability Matching in the Finnish Covered Bond System. For instance, the aggregate interest received on the cover assets in any 12-month period must exceed the interest paid on the outstanding covered bonds. This regulation takes derivatives for hedging purposes into account.

The total amount of collateral of covered bonds shall continuously exceed the remaining combined capital of the covered bonds.

The net present value of the total amount of collateral of covered bonds shall continuously exceed by at least 2% the total net present value of the payment liabilities resulting from the covered bonds. The net present value test helps mitigate interest-rate, currency and liquidity risk.

As mentioned above, interest receivable on cover assets must be sufficient to cover interest payable on covered bonds on a twelve-month rolling basis. Moreover, the test needs to be stressed by +/- 1%. In case of a breach of one of these rules mentioned, the issuer might face sanctions from the FSA. Ultimately, the issuer might face the loss if its licence. In addition to the 2% net present value legal minimum, further overcollateralisation may be committed by contract. Non-performing loans (defined as 90 days past due) are excluded from cover tests. Assets that are ineligible for Finnish covered bonds (e.g. non-performing loans) are excluded from the cover tests but can be retained in the cover pool and lead to additional overcollateralisation.

VI. TRANSPARENCY

The annual and interim reports of the issuer indicate, in addition to that provided in the act on Credit Institutions, the basis of the valuation of the collateral and the amount of residential mortgage loans and possible intermediary loans and public sector loans issuer has granted, as well as the amount of covered bonds issued.

While there are no statutory transparency rules, Finnish covered bond issuers have adopted the ECBC Label initiative for Covered Bonds and created Finnish National Transparency Template:
https://www.coveredbondlabel.com/issuers/national-information-detail/9/.

The ECBC Label Transparency Guidelines included in the Covered Bond Label Convention for 2014 are fully aligned and compliant with Art. 129 (7) CRR.

On top of the regulatory requirements all issuers provide additional information about the cover pools, ratings and other relevant topics on their websites. Please find the information about the website below (section X).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The issuer carries out the monitoring of the cover pool. The issuer reports to the FSA on a monthly basis. With regard to UCITS 52(4), this supervision of a specialised bank as issuer of the covered bond is compliant to the "special supervision". The FSA is responsible for overall supervision, covered bond licensing, issuing regulations and compliance with the law.

The FSA has the legal power to take appropriate measures. It is allowed to conduct inspections at the bank in question or to require documents. Also, the FSA could issue a public warning or admonition. Ultimately, it is up to the FSA to revoke the banking licence of the bank in question.

With regard to UCITS 52(4), this supervision of a specialised bank as issuer of the covered bond is compliant to the "special supervision".

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

A cover register allows identifying the cover assets. The legal effect of a registration of assets into the cover register is to create the priority claim of covered bond holders to these cover assets in case of an insolvency of the issuer. The cover register is managed by the corresponding bank, which in turn is supervised by the FSA.

The cover register contains information about the principle amount of covered bonds issued, the mortgages and substitute assets covering these bonds as well as derivative transactions hedging these bonds or funds placed as their collateral. The Finnish Covered Bond Law specifically excludes set-off against cover pool assets. The law also specifically excludes claw-back risk.

Asset segregation

The cover pool is a part of the general estate of the bank as long as the issuer is solvent. If the insolvency proceedings are opened, by operation of law, the assets recorded in the cover registers are excluded from the general insolvency's estate. When the insolvency proceedings are opened, the FSA appoints a special cover pool administrator. Within the insolvency procedure, the derivative counterparties rank pari passu to covered bond holders. The cover assets do form a separate legal estate, which is ring-fenced by law from other assets of the issuer.

Impact of insolvency proceedings on covered bonds and derivatives

Covered bonds do not automatically accelerate when the issuing institution becomes insolvent. The legal consequences for the derivatives in case of an insolvency of the issuing bank depend on the relevant contracts. The cover pool administrator can only accelerate the covered bonds if the cover tests can no longer be fulfilled. This would trigger the sale of the cover pool assets.

Following issuer default, the regulator is not a manager or servicer of last resort. However, a cover pool supervisor is appointed to supervise the interests of covered bondholders, with powers to direct the issuer's general administrator.

The cover pool supervisor will supervise cover pool cash flows and payments to covered bondholders. The general administrator also has powers to act in the interests of the covered bondholders under the direction of the cover pool supervisor. This includes the ability to assign the liability for a covered bond as well as the related cover pool assets to another licensed covered bond issuer (with the permission of the FSA).

Preferential treatment of covered bond holders

Covered bond holders enjoy a preferential treatment as the law stipulates the separation of the cover assets on the one hand and the insolvency's estate on the other.

The satisfaction of the covered bond holders is not limited to the cover assets in the Finnish system. On the contrary, those creditors also participate in the insolvency proceedings in respect of the remaining assets of the bank.

A moratorium on the insolvency's estate cannot delay the cash flows from the cover assets and, therefore, endanger the timely payment of covered bond holders.

Access to liquidity in case of insolvency

With the appointment of the cover pool administrator, this person acts on behalf of the covered bond holders. The pool administrator has access to the cover assets. Cover assets may only be disposed with the consent of the FSA. Additionally, the pool administrator has also the first access on cash flows generated by the cover assets. The law foresees a possibility for the pool administrator together with the bankruptcy trustee to take up a loan on behalf of the cover pool to create more liquidity.

Up to 20% of the cover pool may consist of liquid substitute cover assets. Substitute assets are deposits, bonds or guarantees of public sector entities or credit institutions and certain credit insurance. With the consent of the FSA, this limit may even be higher. As all cover assets entered into the cover register are ring-fenced in case of an insolvency of the issuer, this results also in the insolvency remoteness of voluntary overcollateralisation.

Some Finnish covered bonds mitigate liquidity risk via contractual twelve-month maturity extensions ("Soft Bullet"). The extension provides additional time for principal amounts to be refinanced. Combined with the interest coverage test, maturity extensions improve the chance that principal and interest payments can be met without refinancing the covered bonds for the first twelve months after issuer default.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Finnish Covered Bonds comply with the requirements of Art. 52(4) UCITS Directive. The legislation when taken together with the practices processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR)[1]. Therefore, these bonds are 10% risk weighted in Finland. Following the common practice in Europe, they accordingly enjoy a 10% risk weighting in most European countries.

Finnish Covered Bonds are also eligible in repo transaction with national central bank, i.e. within the Euro-zone.

As far as the domestic issuers are aware, there are no further specific investment regulations regarding Finnish Covered Bonds.

European Commission has approved and published the legislative package on Covered Bonds (Directive (EU) 2019/2162 and Regulation (EU) 2019/2160). The Directive will enter into force on Wednesday 8 January 2020, the national transposition period will last until 8 July 2021 and national measures shall be applied starting at the latest from 8 July 2022.

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

With regards to the Regulation, this will also enter into force on 8 January 2020, but it will apply only from 8 July 2022 (Regulation Art 2), in parallel with the deadline for the national measures of the Directive.

Finnish Covered Bond legislation includes already most of the topics described in the proposals for the Articles. The Article 16 (Liquidity Buffer for a Cover Pool) will require the biggest amendment to the current legislation.

X. REGULATIVE LIMITS IN MORTGAGE LENDING

The Board of the Financial Supervisory Authority (FIN-FSA) set a minimum risk weight level of 15% for residential mortgage loans applicable to credit institutions that have adopted the Internal Ratings Based Approach for the calculation of capital requirements. The decision on the 15% minimum risk weight entered into force 1 January 2018. The risk weight floor and will be valid for two years.

FIN-FSA changed the loan cap limiting the maximum LTV level starting from 1 July 2018 to 85% (90%). For a first home purchase the cap will remain at 95%.

Issuers: Aktia Bank PLC, DANSKE BANK, OP Mortgage Bank, Nordea Mortgage Bank, Ålandsbanken AB, Suomen Hypoteekkiyhdistys, SP-Mortgage Bank Plc, Oma Säästöpankki.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/19/Finnish_Covered_Bonds

Covered Bond · Label · : OP Mortgage Bank (1 pool), Danske Mortgage Bank Plc (1 pool), Nordea Mortgage Bank Plc (1 pool), Sp Mortgage Bank Plc (1 pool).

3.14 FRANCE

Three main covered bond issuing structures exist in France today:

> *Sociétés de Crédit Foncier (SCF);*

> *Sociétés de Financement de l'Habitat (SFH);*

> *Caisse de Refinancement de l'Habitat (CRH).*

While several countries allow ordinary credit institutions to issue covered bonds subject to the segregation of the cover pool in their balance sheet, France requires the set-up of an *ad hoc* company which is a duly licensed specialised credit institution (licensed by the *Autorité de Contrôle Prudentiel et de Résolution (ACPR)*, the French Banking Authority). The ad-hoc companies are known as *société de financement de l'habitat (SFH)* and *société de crédit foncier (SCF)*; these are totally distinct from the other entities of the group to which they belong and are exclusively dedicated to the issuance of covered bonds named respectively *obligations de financement de l'habitat (OHs)* and *obligations foncières (OFs)* and the management of the assets backing those issues (the "cover pool").

Caisse de Refinancement de l'Habitat (CRH) is the sole entity in its category. It is also a duly licensed specialised credit institution which acts independently and is distinct from the banking groups which are being financed.

Regulation of *Société de Crédit Foncier* and *Sociétés de Financement de l'Habitat* was substantially strengthened in 2014 by Decree n° 2014-526 dated 23 May 2014 and Arrêté dated 26 May 2014. Law n° 2016-1691 dated 9 December 2016 relating to "transparency, fight against corruption and modernisation of economy" (known as the "Sapin II Law") has amended the legal eligibility criteria of SCF's assets to allow SCF to grant secured loans benefiting from a financial guarantee constituted of real estate's loans receivables as it is already the case for the SFH. It constitutes a new step towards the legal convergence of the various French regimes.

A – SOCIÉTÉ DE FINANCEMENT DE L'HABITAT (SFH) AND THE SOCIÉTÉ DE CRÉDIT FONCIER (SCF)

By Cristina Costa, Société Générale, Alexis Latour, BNP Paribas and Jennifer Levy, Natixis

I. FRAMEWORK FOR SFH AND SCF

The *SCF/SFH* are governed by Articles L.513-2 et *seq*. and R.515-2 et seq. of the French Monetary and Financial Code (the "Code"). This stringent legal framework is specifically designed to protect the holders of the *OFs and OHs*. As a credit institution, the *SCF/SFH* are also governed by French general banking regulations.

The SFH/SCF structure can make use of the implementation of the EU Collateral Directive 2002/47/EC, as amended, under French law (implemented into the Code under articles L. 211-36 and seq.), which allows for a segregation through either a remittance (*remise*), a pledge (*nantissement*) or the transfer by way of security of the full title (*cession en pleine propriété à titre de garantie*) of the home loans' receivables without an actual transfer (true sale) of these receivables to the issuer. Pursuant to article L.211-38 of the Code, the transfer by way of security and the pledge shall be enforceable even when the relevant collateral provider is subject to an insolvency proceeding.

The sponsor bank remits, pledges or transfers collateral to a dedicated subsidiary, which is a regulated French specialised credit institution with limited purpose licensed as a SFH/SCF (e.g. issuing covered bonds for the purpose of providing financing to the sponsor bank). The covered bond proceeds are used to fund advances to the respective sponsor bank(s). The covered bonds are secured by the legal privilege over the assets of the issuer (advances to the sponsor bank(s)), which are in turn secured by a pledge over cover assets (i.e. residential home loans), which remain on the sponsor bank's balance sheet (and/or on the balance sheets of the respective subsidiaries, affiliates or group member banks). Upon a borrower enforcement notice (for example in case of default of the sponsor bank), the respective cover assets, including underlying securities, will be transferred without any formalities to the covered bond issuer.

II. STRUCTURE OF THE ISSUER

The *SCF/SFH* is a credit institution licensed by the *Autorité de Contrôle Prudentiel et de Résolution (ACPR)*, the French Banking Authority, with a single purpose: to grant or acquire eligible cover assets, as defined by Law, and to finance them by issuing respectively *OFs and OHs*, which benefit from a special legal privilege (the "Privilege"). It may also issue or contract other debts benefiting or not from the Privilege. The *SCF/SFH* operates under the close control of the ACPR, which requires it to comply with strict management rules in order to ensure the company's financial security.

III. COVER ASSETS

There are no major differences between the SCF and the SFH. Admittedly, the *SCF* may refinance "public exposures" and commercial real estate loans receivables, while *SFH* cannot. Moreover, the *SCF* are not allowed to finance guaranteed home loan receivables above a threshold of 35% of the privileged assets of the *SCF* and the guarantor must not belong to the same group as the *SCF*. *In contrast, SFH* are allowed to refinance such receivables. The eligible assets of a SFH and SCF comprise, inter-alia:

> Secured loans which, in accordance with Article L.513-3 of the Code include loans which are secured by a first-ranking mortgage over an eligible real estate, or by other real estate security interests that are equivalent to a first-ranking mortgage, or loans that are guaranteed by a credit institution, financing company (*société de financement*) or an insurance company with a shareholder's equity of at least €12 million and which does not belong to the same group as the relevant *SCF* according to Article L. 233- 16 of the French Commercial Code. The property must be located in France or in any other Member State of the EU, EE or in a State benefiting from the highest level of credit assessment given by an external rating agency recognised by the ACPR;
In this paragraph, for SFHs, only home secured loans will be considered as eligible assets while commercial and home secured loans can be included in SCFs' cover pools.

> Grant to any credit institution loans guaranteed by the remittance (*remise*), the transfer (*cession*) or the pledge (*nantissement*) of receivables pursuant to and in accordance with the provisions of Articles L.211-36 to L.211-40 or Articles L.313-23 to L.313-35 of the Code, regardless of the nature of such receivables, professional or otherwise, provided that they satisfy the eligibility criteria set out in Article L.513-3 of the Code;

> Loans guaranteed by the *Fonds de Garantie à l'Accession Sociale à la Propriété* (Guarantee Fund for Social Access to Home Ownership);

> ***Only SCFs:*** exposures to public entities which, in accordance with Article L.513-4 of the Code include, *inter alia*, exposures to public entities such as states, central banks, local authorities or state-owned entities located within the EEA, in a Member State of the EU, in the United States of America, Switzerland, Japan, Canada, Australia or New Zealand, or if not located in those jurisdictions, such public entities must comply with specific limits and level of credit assessment given by an external rating agency recognised by the ACPR;

> Units or notes (other than subordinated units or subordinated notes) issued by French securitisation vehicles, or other similar vehicles governed by the laws of a Member State of the EU or the EEA if (i) their assets comprise at least 90% of secured loans or other receivables benefiting from the same level of guarantees and (ii) such units or notes benefit from the highest level of credit assessment promissory notes (*billets à ordre*); and

> Substitution assets, under certain liquidity and maturity conditions and provided that their aggregate value is up to a maximum amount of 15% of the outstanding covered bonds.

> Within the limit of the liquidity buffer, in addition to substitution assets, debt securities (*titres de créances*) issued or guaranteed by a central administration of a Member state of the European Union and cash invested on accounts opened within the books of a central bank of a Member State of the European Union which comply with the criteria listed in 1(a) of Article 416 of the Capital Requirements Regulation n°575/2013 dated 26 June 2013.

IV. VALUATION AND LTV CRITERIA

Loans in the cover pool can be financed by *OFs* and OHs and other privileged debt up to the amount of: i/ the remaining principal balance of the loan; or ii/the value of the real estate financed or given as collateral multiplied by the financing coefficient, whichever is lower.

This financing coefficient is equal to:

> 60% of the value of the financed real estate for guaranteed loans, or of the assets given as collateral for residential mortgages;

> 80% of the value of the real estate in the case of loans that were granted to individuals either to finance the construction or purchase of a home, or to finance both the acquisition of the undeveloped land and the cost of building the home;

> 100% of the value of the real estate financed, in the case of loans guaranteed by the *Fonds de garantie à l'accession sociale* (Guarantee Fund for Social Home Accession).

The real estate financed by the loans is valued according to the French mortgage market accepted practice and defined by law (regulation n°99-10). **Real estate valuations must be based on their long-term characteristics. Under banking regulation (Arrêté of the 3rd of November 2014), real estate values are considered as part of the risks of *sociétés de crédit foncier*. The valuations are made by independent experts in compliance with banking regulation**.

Regarding valuations methods, different options are available (full valuation, use of statistic methods) that depend on the property use (residential or professional (commercial)), the loan size and the property value. For statistical methods, the real estate values are based on the index provided by INSEE (*Institut National de la Statistique et des Études Économiques*) or on the index provided by Notaries (PERVAL). The real estates are revaluated on an annual basis.

Among his duties, the Specific Controller controls the eligibility, composition and valuation of the assets. The valuation and revaluation methods as well as their results are annually validated by the specific controller and published in the annual reports.

V. ASSET/LIABILITIY AND RISK MANAGEMENT

The *SCF/SFH* must comply with asset/liability rules as required by banking regulations and, in particular, it has to ensure the matching of its assets and liabilities in terms of interest rates and maturities.

Market risks

The *SCF/SFH* must manage and hedge market risks on its assets, liabilities and off-balance sheet items: interest rate risks, currency risks, liquidity and maturity mismatches between liabilities and assets. The surveillance of these points is part of the duties of the Specific Controller.

Coverage ratio

At all times, the total value of the assets of the *SCF/SFH* must be, at least, after weighting, equal to 105% of the liabilities benefiting from the Privilege.

From a regulatory standpoint, the coverage ratio is calculated on the basis of the *SCF/SFH* accounting data by applying different weights to classes of assets:

> Loans secured by a first-ranking mortgage or by an equivalent guarantee are weighted 100% up to their part eligible for privileged debt financing;

> Residential loans guaranteed by a credit institution or an insurance company are weighted according to the following table below

Rating of the guarantor (M/S/F)	Home loan guarantor not part of the same consolidation scope as the SFH or the SCF	Home loan guarantor is part of the same consolidation scope as the SFH
≥A3/A-/A-	100%	80%
≥Baa3/BBB-/BBB-	80%	60%
All other cases	0%	0%

> Senior securities of securitisation vehicles are weighted 100%, 80%, 50% or 0% subject to different criteria (essentially their rating).

> **Only for SCFs:** public exposures and replacement assets are weighted 100%.

Specifities to SFH

The SFH programmes also include a dynamic Asset Coverage Test (ACT) that requires the balance of the mortgages in the collateral pool to significantly exceed the balance of the outstanding covered bonds. The minimum level of OC will depend on the credit quality of the mortgages in the cover pool as assessed by the rating agencies. For all the existing programmes the maximum asset percentage applied in the ACT is 92.5%, which translates into a minimum overcollateralisation of at least 8%. However, that being said all SFH programmes currently exceed the minimum amount due to adjustments to the most recent rating agency methodologies.

When calculating the appropriate loan balance within the Asset Coverage Test (ACT), higher LTV loans are included in the pool, but loan amounts exceeding the respective cap do not get any value in the ACT. For all programmes, the LTV ratio of the mortgage loans cannot be more than 100%. In addition, the ACT gives no value to the loans in arrears or defaults.

Maturity mismatch

The remaining weighted average life of the assets of the *SCF/SFH* should not exceed that of the covered bonds by more than 18 months. Cover pool assets taken into account are only those that are strictly necessary to satisfy the minimum legal overcollateralisation requirement of 105%. In addition, new issuers and structures in run off might be exempted of this requirement.

Liquidity risk

The *SCF/SFH* are required to ensure that its cash needs are constantly covered over a moving period of 180 days. The scope of this obligation will extend to forecasted principal and interest flows involving the *SCF/ SFH's* assets, as well as to flows related to its derivative instruments. Cash needs may be covered, if necessary, by replacement securities, assets eligible for Bank of France refinancing, and repurchase agreements with credit institutions that have the highest short-term credit ratings or whose creditworthiness is guaranteed by other credit institutions that have the highest short-term credit ratings.

The *SCF/SFH* are authorized to subscribe to its own *OFs* up to 10% of total privileged liabilities provided that these *OFs* are only used as collateral with the central bank or cancels them within 8 days.

Exposure on the group to which the SCF/SFH belongs

Decree N° 2014-526 and *Arrêté* dated 26 May 2014 limits the ability of the *SCF/SFH* to hold assets in the form of exposures on entities of the group to which it belongs. When these assets exceed 25% of the non-privileged assets of the *SCF/SFH*, the difference between the exposure on these entities and the sum of 25% of the non-privileged assets together with the assets received in guarantee, pledged or full property, is deducted from the numerator of the coverage ratio.

VI. TRANSPARENCY

As credit institution and listed company, the *SCF/SFH* must publish periodic financial information. The issuer must send a detailed annual report on risk management to the *ACPR*. Moreover, the *SCF/SFH* is also required to publish:

> A quarterly report relating to the nature and the quality of their assets.

> An annual report describing:

(i) the nature and the quality of their assets, the characteristics and breakdown of loans and guarantees, the amount of defaults, the breakdown of receivables by amount and by type of debtors, the proportion of early redemptions, the list and characteristics of senior securitisation securities and RMBSs they hold (if any), the volume and breakdown of replacement securities they hold, and

(ii) the extent and sensitivity of their interest-rate exposure.

> A quarterly report, on 31 March, 30 June, 30 September and 31 December of each year relating to:

(i) the amount of its coverage ratio and the compliance with the limits they are requested to respect i.e. the 35% limit of guaranteed loans, the 10% limit of mortgage promissory notes etc.;

(ii) the data of the calculation of the coverage of its liquidity needs;

(iii) the gap of the average duration between those of its eligible assets and its privileged liabilities;

(iv) the valuation of the coverage of the privileged debts until their maturity by the available eligible assets and the estimation of the future new production of these eligible assets on the basis of prudent assumptions.

In addition, the SCF/SFH generally publishes on a quarterly basis the European Covered Bond Label Reports (under the Harmonised Transparency Template format), recently enriched by the additional regulatory requirements in connection with eligibility of the collateral to ECB open market operations.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Specific Controller is appointed by the *SCF* and the SFH with the agreement of the ACPR. To ensure his independence, the Specific Controller cannot be an employee of either of the *SCF/SFH's* statutory auditors, of the company that controls the *SCF/SFH*, or of any company directly or indirectly controlled by a company that controls the *SCF/SFH*.

The mission of the Specific Controller includes the following verifications:

> that all assets granted or acquired by the *SCF/SFH* are eligible to the cover pool, and in the case of mortgage assets, that they are properly valued;

> that the coverage ratio is, at any moment, at least, at 105%;

> that the *SCF* comply with all the limits required by the regulation (i.e. the limit of the loans guaranteed by a credit institution or an insurance company, the limit of the mortgage promissory notes and the limit of the replacement assets);

> that the "congruence", i.e. the adequacy of maturities and interest rates of assets and liabilities, is at a satisfactory level. The Specific Controller checks the different quarterly indicators before sending them to the ACPR, and

> that, in general, the *SCF/SFH* complies with the law and regulations.

The Specific Controller certifies that the *SCF/SFH* complies with the coverage ratio rules on the basis of a quarterly issuance program, and for any issue of privileged debt of an amount equal or above EUR 500 m. These coverage ratio affidavits are required to be stipulated in issuance contracts where the debt benefits from the Privilege.

The Specific Controller reports to the ACPR, attends shareholders' meetings, and may attend Board meetings. The *SCF/SFH* operates under the constant supervision of the ACPR. Its management, its Specific Controller and its Statutory Auditors should be agreed by the ACPR.

All the above-mentioned reports should be sent to the ACPR together with the annual report of the Specific Controller and the annual reports of the Statutory Auditors.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Cover assets are segregated in the issuing specialised credit institution. Pursuant to Article L.513-11 of the Code, holders of *OFs/OHs* and other privileged debts have preferred creditor status and the right to be paid prior to all other creditors who have no rights to the assets of the *SCF/SFH* until the claims of preferred creditors have been fully satisfied.

Under the *SCF/SFH* legislation, the holders of the *OF/OH* benefit from the legal privilege over the S*CF/SFH's* eligible assets. If the issuer becomes insolvent, the *OF/OH* and other privileged debts are paid in accordance with their payment schedule, and have priority over any of the programme's other debts or non-privileged creditors in relation to the programme's assets. All privileged debts rank *pari passu*. Until payment in full of such privileged liabilities, no other creditors may take action against the assets of the *SCF/SFH*.

The issuer may be subject to insolvency, but the *SCF/SFH* law provides for a regime which derogates in many ways from the French insolvency provisions:

> **Legal Privilege / No acceleration of covered bonds as a result of insolvency of SFH**: in the event of an insolvency proceeding of the *SCF/SFH* (safeguard procedure, judicial reorganization or liquidation), all claims benefiting from the Privilège (including interest) must be paid on their due dates and in preference to all other claims. Until payment in full of all such preferred claims, no other creditors may take any action against the assets of the *SCF/SFH*;

> **No nullity during the hardening period**: the provisions allowing an administrator to render certain transactions entered into during the hardening period (*période suspecte*) null and void are not applicable for the transfer of assets entered into by a *SCF/SFH* (provided that such transactions are made in accordance with their exclusive legal purpose and without fraud);

> **Option to terminate ongoing contracts with insolvent counterparties**: in case of the opening of any insolvency procedure against the credit institution, which is acting as manager and servicer of the *SCF*, any contract may be immediately terminated by the *SCF/SFH* notwithstanding any legal provisions to the contrary;

- **No impact of the hardening period**: the common provisions of French bankruptcy law affecting certain transactions, which entered into force during the months prior the insolvency proceedings during the hardening period, are not applicable to *SCF/SFH*.
- **No extension of bankruptcy proceedings**: as an exception to the general French bankruptcy Law, bankruptcy proceedings or liquidation of a company holding share capital in a *SCF or a SFH* cannot be extended to the *SCF or the SFH*. As a result, the *SCF or the SFH* enjoys full protection from the risks of default by their parent company or the group to which it belongs.

IX. RISK-WEIGHTING AND COMPLIANCE WITH EUROPEAN LEGISLATION

The French covered bonds' legislation and regulation comply with the requirements of article 52(4) of the UCITS Directive. All covered bonds are UCITS compliant and CRR compliant (fulfilling criteria provided in article 129(1)). *OFs/OHs* which are CRR compliant have a 10% risk-weighting according to the Standardised Approach in the CRR if benefiting from a rating classified as STEP1. OFs/OHs can be eligible as Level 1 assets under LCR regulation provided they respect specific criteria.

B – CAISSE DE REFINANCEMENT DE L'HABITAT (CRH)

By Marc Nocart, Caisse de Refinancement de l'Habitat

I. FRAMEWORK

CRH was created in 1985 by French Government as a central agency, in order to develop the housing market in France; it aims at extending long-term funding to the loan retailers (currently French banks) in the specific legal framework of art 13 of law 85-685 of July 1985.

CRH was initially granted an explicit State guarantee, which has been replaced in 1989 by a Law-specific package consisting in an increase of the minimum overcollateralisation rate and a very strong legal privilege upon CRH's secured loans to banks.

Being the sole agency-type structure currently existing in France, CRH is operating under its dedicated legal framework. CRH received approval to issue bonds under Article 13 of act 1985-695 by letter of 17 September 1985 from the Minister for the Economy, Finance and Budget. CRH approval to operate is restricted to the sole funding, on a secured basis, of portfolios of eligible loans.

The Caisse de Refinancement de l'Habitat (previously Caisse de Refinancement Hypothécaire) is therefore a specialised credit institution whose sole function is to fund French domestic residential mortgage to individuals granted by the French banking system. CRH' operations are governed by the provisions of art L. 313-42 to L. 313-49 of Monetary and Financial Code.

CRH issues exclusively covered bonds and lends this market-sourced funding to banks, by strictly mirroring their terms and conditions (interest rate, maturity, currency), in full dedication to its legal mandate.

CRH's bonds are strictly regulated in order to provide bondholders with a very high credit quality and a strong legal privilege. They are governed by the Article 13 of act 1985-695 of 11 July 1985 as complemented by Article 36 of act 2006-872 of 13 July 2006.

CRH secured loans to banks take the form of mortgage promissory notes issued by the borrowing banks and held by CRH, secured by a pledge of eligible housing loans to individuals. They are governed by Articles L. 313-42 to L. 313-49 of the French Monetary and Financial Code which grant CRH, inter alia, a very strong privilege upon the covered pool.

In the case of a borrowing bank default, CRH becomes owner of the portfolio of housing loans without any formality notwithstanding any provision to the contrary.

II. STRUCTURE OF THE ISSUER

Caisse de Refinancement de l'Habitat, a French corporation (*société anonyme*), is a specialised credit institution licensed by virtue of the decision taken on 16 September 1985 by the French Credit Institutions Committee (*Comité des Établissements de Crédit*).

CRH is therefore governed by the provisions of Articles L. 210-1 to L. 228-4 of the French commercial Code and Articles L. 511-1 et seq. of the French Monetary and Financial Code.

Its equity belongs to French banks, which as of 30 June 2020 was as follows:

> Crédit Agricole SA – Crédit Lyonnais	33.1%
> Crédit Mutuel – CIC	32.1%
> Société Générale – CDN	17.9%
> BPCE	9.1%
> BNP Paribas	7.8%

Every borrower is committed to become a shareholder of CRH, whose equity stake in CRH is proportionated to its weight in CRH's global regulatory weighted loans amount.

Furthermore:

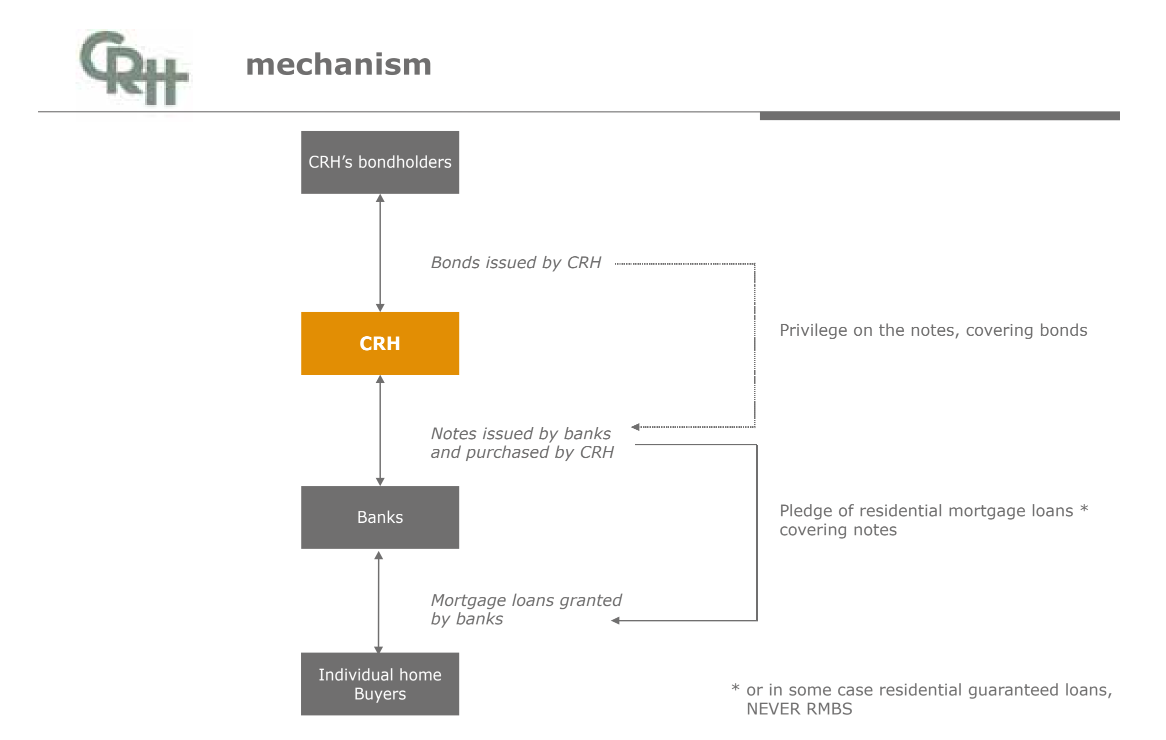
> every borrower is committed to supply back up lines to CRH

> CRH benefits from cross commitments of shareholders to supply cash advances and capital contributions.

These shareholders-borrowers are among the best European names. Their global market share is roughly 80% of the French mortgage market.

CRH is not borrowing for itself but for the account of its shareholders; nevertheless, as any fully independent credit institution, it can decline funding a shareholder.

CRH covered bonds are unsubordinated senior secured obligations and rank pari passu among themselves benefiting from the legal privilege. No other debt can be either senior or rank even pari passu with the covered bonds.



III. COVER ASSETS

CRH's loans to banks (represented by mortgage promissory notes) are secured by the pledge of eligible loans kept in the balance sheets of borrowing banks. These assets are ring-fenced thanks to the legal privilege granted to CRH (and passed impaired to CRH' bondholders in virtue of the privilege granted to the covered bonds holders).

Eligible loans are restricted by Law, and by additional restrictions embedded into CRH internal regulation.

Are eligible to CRH cover pool:

1. Home loans *(prêts à l'habitat)* secured by a first-ranking mortgage
2. Within the limit of 35% of the cover pool, home loans that are guaranteed by a credit institution or an insurance company, with a shareholder's equity of at least €12 million and which does not belong to the same group as the relevant bank according to Article L. 233-16 of the French Commercial Code.
3. Loans guaranteed by the *Fonds de Garantie à l'Accession Sociale à la Propriété* (Guarantee Fund for Social Access to Home Ownership).

These eligibility criteria are supplemented by the following restrictions:

> The property must be located exclusively in France

> The loan amount cannot exceed EUR 1.000.000

> The loan residual tenor cannot exceed 25 years Are NOT eligible in CRH cover pool

> Securitisation exposures

> Public assets

> Replacement assets.

The CRH cover pool includes exclusively residential loans complying with the Capital Requirements Regulation (CRR Article 129). Typically, ca. 85% of the pool is secured by first rank mortgages and 15% are guaranteed loans.

The total value of the cover pool must equal:

> For fixed-rate home loans, at least 125% of the total amount of CRH loans (equal to the total amount of CRH bonds);

> For floating-rate home loans, at least 150% of the total amount of CRH loans.

The collateralisation rate can of course be set at higher levels by additional requests made either by CRH itself or by the rating agencies.

IV. VALUATION AND LTV CRITERIA

The rules for property valuations are the same as those of *sociétés de credit foncier*.

The properties financed by the loans are valued according to the French mortgage market accepted practice and defined by law (regulation n°99-10).

Regarding valuations methods, different options are available (full valuation, use of statistic methods) that depend on the loan size and the property value.

All buildings financed by eligible loans are the subject of a prudent evaluation that excludes all speculative aspects. It is carried out by the borrowing bank. The valuation is performed taking into account the building's long-term characteristics, normal and local market conditions, the current usage made of the asset and all alternative usages that it might be assigned to.

This valuation must be performed by an independent expert, i.e. a person who is not part of the lending decision-making process.

The valuation of the buildings is re-examined as part of the risk measurement system required of borrowing credit institutions by CRBF Regulation no. 97-02. This examination is performed annually using statistical methods.

For statistical methods, the properties values are based on the index provided by INSEE (*Institut National de la Statistique et des Études Économiques*) or on the index provided by Notaries (PERVAL).

They are revaluated on a quarterly basis.

Loans in the cover pool can be financed up to the lower amount of:

- The remaining principal balance of the loan; or
- The value of the real estate financed or given as collateral multiplied by the financing coefficient, this financing coefficient is equal to the lower of:
  - 60% of the value of the financed real estate for guaranteed loans, or of the assets given as collateral for residential mortgages;
  - 90% of the value of the real estate (provided the overcollateralisation rate is at least equal to 125%) in the case of loans that were granted to individuals either to finance the construction or purchase of a home, or to finance both the acquisition of the undeveloped land and the cost of building the home;
  - 100% of the value of the real estate financed, in the case of loans guaranteed by the *Fonds de garantie à l'accession sociale* (Guaranty Fund for Social Home Accession).

V. ASSET – LIABILITY MANAGEMENT

CRH ALM is extremely simple as it is a perfect pass-through structure.

CRH's debts (covered bonds) and loans (mortgage promissory notes) have exactly the same characteristics.

CRH is therefore not exposed to any interest rate, foreign exchange or liquidity risk.

Overcollateralisation:

By law, CRH minimum collateralisation rates are the following:

- For fixed rates home loans, at least 125% of the total amount of CRH loans (equal to the total amount of CRH bonds);
- For floating rate home loans, at least 150% of the total amount of CRH loans.

The collateralisation rate can of course be set at higher levels by additional requests made either by CRH itself or by the rating agencies.

Liquidity:

According to CRH internal regulation, banks are committed to grant liquidity lines on which CRH can draw upon request.

Maturity mismatch:

According to CRH internal regulation, each bank's cover pool must be congruent with rate and duration of CRH's related covered bond to protect CRH in the case where it becomes owner of the cover pool. Save to achieve it, an extra layer of overcollateralisation is requested from the borrower.

VI. TRANSPARENCY

CRH publishes, on a quarterly basis the European Covered Bond Label Report (under the Harmonised Transparency Template format), recently enriched by the additional regulatory requirements relating to eligibility of the collateral to ECB open market operations.

Due to the new regulation, CRH must disclose (but not publish), on a quarterly basis: i) the overcollateralisation ratio, ii) the gap between the average life of the assets and liabilities and iii) the forecast cover plan regarding the matching between the assets and the liabilities.

Every year, the annual report discloses the size of the cover pool. This report confirms the characteristics (nature and quality) of home loans pledged and that CRH is not exposed to interest rate risk.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

CRH is an independent credit institution which is directly supervised by the ECB, in coordination with the French supervisor ACPR (*Autorité de contrôle prudentiel et de résolution*).

Furthermore, its operations are under a specific supervision of ACPR as a consequence of the provisions of the article L.313-49 of Monetary and Financial Code.

The monitoring of the portfolio is carried out at two levels:

> Off-site portfolio data processing reported in the monthly list of pools of loans pledged to CRH by the borrowing banks

> On-site audits (i.e. at the borrowing banks) of the cover pool, based on samplings. If necessary, CRH asks borrowing banks to increase the cover pool to compensate for the shortfall identified or to pay back.

CRH by delivering CRH's bonds.

CRH is also subject to audit by its shareholder banks.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Under the applicable CRH legislation:

> CRH is granted a very strong legal privilege (i.e. superseding any other laws, in particular bankruptcy law) over the covered pool. This legal privilege is integrally passed on to covered bond investors, without any impairment or possibility of legal challenge.

> The holders of CRH covered bonds benefit from the legal privilege over CRH Mortgage Promissory Notes (i.e. the secured loans to banks).

Which means that the entirety of the covered pool cash flows will be passed to bondholders, in accordance with their payment schedule, and have priority over any of CRH's other debts or non-privileged creditors. The sole CRH privileged debts are CRH covered bonds.

In case of a bank's default:

> CRH becomes the owner of the portfolio of housing loans without any formality, notwithstanding any provision to the contrary.

> CRH being an independent company from the borrowing banks, bankruptcy proceedings or liquidation of a borrowing bank holding CRH's equity cannot be extended to CRH.

In case of a CRH's default:

> **no acceleration of covered bonds as a result of insolvency of CRH**: in the event of an insolvency proceeding of CRH (safeguard procedure, judicial reorganization or liquidation), all Covered Bonds must be paid on their due dates and in preference to all other claims. Until payment in full of all such preferred claims, no other creditors may take any action against the assets of CRH;

> **no nullity during the hardening period**: the provisions allowing an administrator to render certain transactions entered into during the hardening period (*période suspecte*) null and void are not applicable for the transfer of assets entered into by CRH (provided that such transactions are made in accordance with their exclusive legal purpose and without fraud).

Recourses

The sums resulting from the eligible assets, are allocated in priority to the payment of sums due in respect of the Covered Bonds. Until payment in full of such – sole – privileged liabilities, no other creditors may take action against the assets of CRH.

On 15 May 2014, the Directive 2014/59/EU of the European Parliament and of the Council established a framework for the recovery and resolution of credit institutions and investment firms ("BRRD"). The BRRD provides authorities with a credible set of tools to intervene sufficiently early and quickly in an unsound or failing institution to ensure the continuity of the institution's critical financial and economic functions, while minimising the impact of an institution's failure on the economy and financial system. The implementation of the BRRD into French law has been made by two texts of legislative nature (the banking law dated 26 July 2013 and an Ordonnance dated 20 August 2015). Regarding Covered Bonds, the BRRD provides that the relevant resolution authority shall not exercise the write down or conversion powers in relation to secured liabilities including covered bonds and liabilities in the form of financial instruments used for hedging purposes which form an integral part of the cover pool and which according to national law are secured in a way similar to covered bonds, whether they are governed by the law of a Member State or of a third country.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

CRH's bonds are compliant with the criteria of Article 129(1) CRR and Article 52(4) of the UCITS Directive.[1] They are 10% weighted in standard approach.

Article 129 of CRR defines which assets are eligible as collateral for covered bonds to ensure a lower risk-weighting. French guaranteed home loans (prêts cautionnés) are eligible for preferential treatment subject to a number of conditions:

> The eligible guaranteed home loan provider qualifies for credit quality step 2 or above (i.e. rated minimum A3/A-/A- by Moody's, S&P and Fitch);

> The portion of each of the loans that is used to meet the requirement for collateralisation of the covered bonds does not represent more than 80% of the value of the corresponding residential property located in France (i.e. guaranteed home loans comply with the 80% LTV limit); and,

> Where a loan-to-income ratio is limited to 33% when the loan has been granted.

CRH Covered bonds are included in securities accepted for the European Central Bank (ECB) open market operations. They are eligible as Level 1 assets for the Liquidity Coverage Ratio (LCR).

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

X. ADDITIONAL INFORMATION

CRH belongs to covered bonds world but is very different from other issuers:

> CRH is a former agency created by French government,

> CRH is regulated by specific legal framework dedicated to it,

> CRH is not borrowing for itself but for the account of French Banking system,

> CRH is a credit institution of full exercise able to refuse to fund a shareholder,

> CRH benefits from cross commitments of French banks to supply cash advances and capital contributions.

Issuers: AXA Bank Europe (SCF); BNP Paribas Public Sector (SCF); BNP Paribas Home Loan (SFH); BPCE (SFH); Banques Populaires Covered Bonds (BP CB); Caisse Française de Financement Local (CAFFIL); CIF Euromortgage; Compagnie de Financement Foncier (CFF); Crédit Agricole Public Sector (SCF); Crédit Agricole Home Loan (SFH); Crédit Mutuel – CIC Home Loan (SFH); Crédit Mutuel Arkéa Public Sector (SCF); Crédit Mutuel Arkéa Home Loans (SFH); Caisse de Refinancement de l'Habitat (CRH); GE Money Bank (SCF); HSBC (SFH); La Banque Postale Home Loan (SFH); Société Générale (SCF); Société Générale (SFH).

ECBC Covered Bond Comparative Database:
https://www.ecbc.eu/framework/21/Caisse_de_Refinancement_de_l%27Habitat_-_CRH
https://www.ecbc.eu/framework/71/General_Law_Based_CBs
https://www.ecbc.eu/framework/73/Obligations_Fonci%C3%A8res_-_OF
https://www.ecbc.eu/framework/90/Obligations_%C3%A0_l%27Habitat_-_OH

COVERED BOND LABEL: AXA Bank Europe SCF (1 pool), BNP Paribas (2 pools), BPCE SFH (1 pool), Compagnie de Financement Foncier (1 pool), Crédit Mutuel – CIC Home Loan SFH (1 pool), HSBC SFH (1 pool), Société Générale (2 pool), Credit Agricole (2 pools), Caisse de Refinancement de l'Habitat (1 pool), Caisse Française de Financement Local (1 pool), Arkéa (2 pools), La Banque Postale Home Loan SFH (1 pool), CIF Euromortgage (1 pool).

3.15 GERMANY

By Otmar Stöcker, Association of German Pfandbrief Banks

I. FRAMEWORK

In Germany, the legal basis for covered bond issuance is the German Pfandbrief Act (PfandBG – Pfandbriefgesetz) dated 22 May 2005 replacing the Mortgage Bank Act from 1900 and other German Pfandbrief laws.

The last important amendment came into force on 29 March 2019 in order to ensure that existing and future UK business might remain eligible for the Pfandbrief cover pool in case of Brexit.

II. STRUCTURE OF THE ISSUER

Since 2005, the issuer of Pfandbriefe is no longer required to be a specialised bank. Instead, Pfandbrief issuers are allowed to exercise all activities of a credit institution, although a special licence for Pfandbrief issuance is required.

Since the EBA outsourcing guidelines do not allow for the outsourcing of important and decision-making sections of the credit institution, the issuer is required to have its own employees. In addition, the PfandBG requires Pfandbrief banks to manage their own risk and take their own credit decisions on their own.

The issuer holds the cover assets on his balance sheet. A subsequent transfer of the cover assets to another legal entity does not take place. Given that a direct legal link between single cover assets and Pfandbriefe does not exist, all obligations relating to Pfandbriefe are obligations of the issuing bank as a whole, to be paid from all the cover assets of the issuer, recorded in the cover register. In the case of insolvency, the cover pool is segregated by law from the general insolvency estate and is reserved for the claims of the Pfandbrief holders. Even then, Pfandbrief holders still have a claim against the general insolvency estate (dual/triple recourse).

III. COVER ASSETS

Cover assets are produced by mortgage lending, public sector lending, ship and aircraft financing activities. ABS/MBS are not eligible. A specific class of covered bonds corresponds to each of these cover asset classes: Hypothekenpfandbriefe, Öffentliche Pfandbriefe, Schiffspfandbriefe and Flugzeugpfandbriefe. The respective Pfandbrief must be fully secured by its specific cover asset class (§ 4 PfandBG). Detailed transparency requirements are regulated in § 28 PfandBG.

Up to 10% of the nominal volume of Pfandbriefe outstanding may consist of money claims against the European Central Bank, central banks in the European Union or against suitable credit institutions, which fulfil the requirements of credit quality step 1 according to Table 3 of Article 120 par. 1 or Table 5 of Article 121 par. 1 Capital Requirement Regulation (CRR).

The geographical scope of eligible mortgage assets is restricted to EU/EEA countries, to Switzerland, USA, Canada, Japan and explicitly widened to UK due to the Brexit. Public sector loans to these countries are eligible for the cover of Öffentliche Pfandbriefe (§ 20 PfandBG). In 2014, the mortgage asset scope was enlarged to Australia, New-Zealand and Singapore. The total volume of loans granted in non-EU countries where it is not certain that the preferential right of the Pfandbrief creditors extends to the cover assets, may not exceed 10% of the total volume of the cover loans (§§ 13 I 2, 20 I 2 PfandBG) and 20% for ship and aircraft mortgages (§§ 22 V 2, 26b IV PfandBG).

Derivatives are eligible for cover pools under certain conditions. They must not exceed 12% of the cover assets when calculated on a net present value basis (§ 19 I 4. PfandBG).

IV. VALUATION AND LTV CRITERIA

Property valuation is regulated in § 16 PfandBG. This provision refers to the mortgage lending value (Beleihungswert) which is, in contrast to the market value, based on sustainable aspects of the property. Details about the valuation process and the qualifications of values are regulated in a specific statutory order on the mortgage lending value (Beleihungswertermittlungsverordnung, BelWertV), § 16 IV PfandBG.

Monitoring requirements result from the Capital Requirements Directive (once a year for commercial real estate and once every three years for residential real estate). In addition, § 27 BelWertV requires a review of the underlying assumptions when the market has declined substantially; a review of property values is also necessary when the loan has defaulted.

The BelWertV requires personal and organisational independence of the valuer (internal or external valuer).

For both commercial and residential property, the LTV limit is 60% of the mortgage lending value of the property. This LTV is a relative limit, i.e. when the loan exceeds the 60% limit, the part of the loan up to 60% LTV remains eligible for the cover pool.

V. ASSET – LIABILITY MANAGEMENT

§ 4 PfandBG stipulates that the total volume of Pfandbriefe outstanding must be covered at all times by assets of at least the same amount. Thus, the nominal value of the cover assets must permanently be higher than the respective total value of the Pfandbriefe.

In addition, the Pfandbrief Act requires that Pfandbriefe are covered on a net present value basis even in the event of severe interest rate changes or currency fluctuations. The issuer has to provide an overcollateralisation of at least 2% after stress tests which have to be carried out weekly. Both the maturity of outstanding Pfandbriefe and the fixed-interest periods of the cover pool are disclosed on a quarterly basis. Details about the calculation are regulated in a special statutory order Net Present Value (Barwertverordnung).

Furthermore, each day Pfandbriefbanks have to calculate the maximum liquidity gap within the next 180 days. This amount has to be covered by liquid assets (§ 4 Ia PfandBG).

Every quarter, the stress-tested NPV of outstanding Pfandbriefe, the cover pool and the overcollateralisation have to be published (§ 28 I PfandBG). The stress tests apply not only to interest rate risks but also to foreign exchange risks.

VI. TRANSPARENCY

According to § 28 of the Pfandbrief Act (Pfandbriefgesetz, PfandBG), all Pfandbrief Banks are obliged to publish detailed information about their Pfandbrief outstanding and the pertaining cover pools on a quarterly basis.

Besides these legal requirements, the vdp member banks started the vdp Transparency Initiative in 2010. Within the scope of this initiative, transparency reports of vdp member institutions are published in a uniform format, that can be processed electronically, using a uniform understanding of the legal requirements and on one central website (the vdp's).[1]

Each report is available as a reading version in pdf format and, suitable for further direct processing, in xls (Excel), csv and xml-formats as well. Automatic links to investor databases are possible. The website offers sorting possibilities for the reports both by the reporting date and the bank name. All reports are published in English and German language versions. There is a data history available that goes back to 31 December 2008.

1 http://www.pfandbrief.de/cms/_internet.nsf/tindex/de_pub_pfandbg.htm.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The German federal financial supervisory authority (BaFin) carries out a special supervision on Pfandbrief banks through a dedicated division. The "Pfandbriefkompetenzcenter" is responsible for all fundamental issues regarding the PfandBG and conducts cover pool audits using own staff or external auditors.

Cover audits

The cover pools are subject to a special audit conducted usually every two years by the supervisory authority (§ 3 PfandBG). Cover pool audits are performed either by the appropriate specialist section at BaFin itself or by suitable auditors, who are mandated via contract by public tender.

A cover audit is conducted in respect of individual cover pool assets, the observance of matching cover requirements in terms of the nominal and net present value calculation, the proper keeping of the cover registers, and the systems and processes in place with regard to the cover pools.

Audits of individual cover assets seek to ensure that the respective assets were included in cover in accordance with the relevant rules and regulations or that their continued inclusion is in line with requirements. A system audit entails examining all the Pfandbrief bank's main processes and systems that are directly or indirectly linked to the cover assets and the issued Pfandbriefe. In particular, process documentation, system descriptions and the proper implementation of the relevant methods are scrutinized.

Furthermore, a cover pool monitor (Treuhänder) supervises the cover pool. He is appointed by the BaFin and must possess the expertise and experience necessary to fulfil all duties. A qualification as a certified auditor suggests that the necessary expertise is provided. The monitor has to ensure that the prescribed cover for the Pfandbriefe exists at all times and that the cover assets are recorded correctly in the cover register, §§ 7, 8 PfandBG. Without his approval, no assets may be removed from the cover pool or new Pfandbriefe been issued. The BaFin has published a specific statutory order on details of the form and the contents of this cover register (Deckungsregisterverordnung – DeckRegV), § 5 III PfandBG.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

A cover register (Deckungsregister) permits the identification of the cover assets, § 5 PfandBG. The register records the cover assets being used to cover the Pfandbriefe as well as claims under derivatives (§ 5 I 1 PfandBG).

The legal effect of registration is that in the case of insolvency of the issuer, the assets which form part of the cover pool can be identified: all values contained in the register would not be part of the insolvency estate. § 30 I 1 PfandBG now calls them "insolvency-free assets".

While the bank carries out the daily administration of the cover register, it is the cover pool monitor who supervises the required cover and registration in the cover register, § 8 I, II PfandBG. Copies of the cover register shall be transmitted to the supervisory authority on a regular basis.

Asset segregation

The cover pool is part of the general estate of the bank as long as the issuer is solvent. If insolvency proceedings are launched, by operation of law, the assets recorded in the cover registers are excluded from the insolvency estate (§ 30 I 1 PfandBG). Those assets will not be affected by the launching of the insolvency proceedings (§ 30 I 2 2. HS PfandBG).

After the launching of the insolvency proceedings, a special cover pool administrator (Sachwalter) carries out the administration of the cover assets (§ 30 II 1 PfandBG). Through the appointment of the cover pool administrator by the court, on proposal of the BaFin (or by BaFin in case of urgency), the right to manage and dispose of the recorded assets will be transferred to him automatically by law (§ 30 II 2 PfandBG). Regarding cover assets and timely payment of Pfandbriefe, the cover pool administrator represents the Pfandbriefbank (§ 30 II 5, 6 PfandBG). He is allowed to use premises and staff of the Pfandbriefbank (§31 VIII PfandBG).

Impact of insolvency proceedings on covered bonds and derivatives

Covered bonds do not automatically accelerate when the issuing institution is insolvent, but will be repaid at the time of their contractual maturity. The same applies to derivatives which are registered in the cover register and form part of the cover pool. Accordingly, the German master agreements for cover derivatives stipulate that the bankruptcy of the Pfandbrief issuer does not signify a termination event. Article 13 N° 6 DeckregV stipulates that the collateral provided by the derivative counterpart or the Pfandbrief bank has to be registered in the cover register. The consequence of such registration is that the collateral belongs to the insolvency-free assets.

Preferential treatment of covered bond holders

Covered bond holders enjoy preferential treatment as the law stipulates the separation of the cover assets on the one hand and the insolvency estate on the other, § 30 I PfandBG.

The satisfaction of the Pfandbrief creditors is not limited to the cover assets. On the contrary, these creditors also participate in the insolvency proceedings with respect to the Pfandbrief bank’s remaining assets.

Only in the case of over-indebtedness or illiquidity of the cover pool, the BaFin may apply for a special insolvency procedure relating to the cover pool and covered bonds (§ 30 VI 2 PfandBG). Insolvency of the cover pool is the only reason, which might trigger acceleration of Pfandbriefe.

Access to liquidity in case of insolvency

Through the appointment of the cover pool administrator, the right to manage and dispose of the recorded assets is transferred to him by law (§ 30 II 2 PfandBG). Thus, the cover pool administrator has first access to the cover assets and collects the cash flows according to their contractual maturity (§ 30 III 2 PfandBG).

No explicit regulation exists with respect to the insolvency remoteness of voluntary overcollateralisation (OC). However, the insolvency administrator may only demand that the overcollateralisation be surrendered to the insolvency estate, if those amounts will obviously not be necessary as cover for the respective Pfandbrief category (§ 30 IV 1 PfandBG). The burden of proof that OC will never be necessary for the timely payment of the Pfandbriefe, lays with the insolvency administrator.

The cover pool administrator is entitled to contract loans in order to obtain liquidity. According to § 30 II, 5 PfandBG, the cover pool administrator may carry out legal transactions with regard to the cover pools in so far as this is necessary for an orderly settlement of the cover pools in the interest of the full and timely payments to the Pfandbrief creditors.

Pfandbriefbank with limited business activities

The amendment of the PfandBG 2010 was focused on the legal nature of cover pools in the event of a Pfandbrief bank’s insolvency and on the access of a cover pool administrator to liquid funds during difficult times. A cover pool would get automatically the status of a non-insolvent part of the bank of the insolvent Pfandbrief bank.

§ 30 I 3 PfandBG uses the term ‘Pfandbrief bank with limited business activities’.

Sale and transfer of mortgage assets to other issuers

According to § 32 I PfandBG, the cover pool administrator may transfer all or a part of the assets recorded in the cover register as well as liabilities from Pfandbriefe as a whole to another Pfandbrief bank. This transfer requires the written approval of the supervisory authority.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The PfandBG fully complies with Art. 129 Capital Requirements Regulation (CRR) and Article 52(4) of the UCITS Directive except for Aircraft Pfandbriefe, because Aircraft loans are not eligible cover assets according to Art. 129 CRR.

The work to implement the EU CB harmonisation legislation into the PfandBG has started.

Issuers: There are currently about 80 Pfandbrief banks in Germany, including banks from all three pillars of the German banking industry (private banks, public banks and co-operative banks).

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/23/Pfandbriefe

COVERED BOND · LABEL · : UniCredit Bank AG (2 pools), NORD/LB Norddeutsche Landesbank Girozentrale (1 pool), Deutsche Pfandbriefbank AG (2 pools), Münchener Hypothekenbank eG (1 pool), Berlin Hyp AG (1 pool), Landesbank Baden-Württemberg (2 pools), DZ HYP AG (2 pools).

3.16 GREECE

By Alexander Metallinos, Karatzas & Partners Law Firm

I. FRAMEWORK

In Greece, the primary legal basis for Covered Bond issuance is Article 152 of Law 4261/2014 on "Access to the activity of credit institutions, prudential supervision of credit institutions and investment firms (transposition of Directive 2013/36/EU), repeal of Law 3601/2007 and other provisions", (the "Primary Legislation"). This provision is identical with the provision of Article 91 of the now repealed Law 3601/2007, which had entered into force on 1 August 2007. Therefore, the repeal of Law 3601/2007 had no effect on the regulation of covered bonds. The Primary Legislation supersedes general provisions of law contained in the Civil Code, the Code of Civil Procedure and the Bankruptcy Code. By way of implementation of the Primary Legislation and, pursuant to an authorisation provided by the latter, the Governor of the Bank of Greece has issued Act nr. 2598/2.11.2007 which was replaced by Act nr. 2620/28.8.2009 of the Governor of the Bank of Greece (the "Secondary Legislation"). Finally, the legislative framework in Greece is supplemented by Law 3156/2003 "On Bond Loans, Securitization of Claims and of Claims from Real Estate and Other Provisions" (the "Bond Loan and Securitization Law") and Law 4548/2018 "Reform of law on sociétés anonymes" (the "New Company Law"), to the extent that the Primary Legislation cross-refers to it.

On 12 March 2018, the European Commission adopted a proposal for an enabling EU framework on covered bonds. The legislative proposal consists of (a) the adoption of a directive providing *inter alia* a common definition of covered bonds, defining the structural features of the instrument and identifying those high quality assets that can be considered eligible in the pool backing the debt obligations, establishing a sound special public supervision for covered bonds and setting out the rules which will allow the use of the "European Covered Bonds" label; and (b) the adoption of a regulation amending the Regulation (EU) 575/2013 (the "Capital Requirements Regulation" or "CRR") with the aim of strengthening the conditions for granting preferential capital treatment to covered bonds by adding further requirements. Following this proposal, Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU was enacted. EU Member States are obliged to adopt and publish, by 8 July 2021, the laws, regulations and administrative provisions necessary to comply with this Directive and to apply those measures at the latest from 8 July 2022.

II. STRUCTURE OF THE ISSUER

The Greek legislative framework permits the issuance of covered bonds in two ways, either directly by a credit institution, or indirectly by a subsidiary of a credit institution. In the direct issuance structure, the covered bonds are issued by a credit institution and the segregation of the cover pool is achieved through a statutory pledge over the cover pool assets.

Paragraph 13 of the Primary Legislation allows for a variation to the direct issuance. Under this structure, the covered bonds are issued by the credit institution and guaranteed by a special purpose entity (SPE), which acquires the cover pool. This structure has not yet been used by any issuer.

In the indirect issuance structure, the covered bonds are issued by a special purpose entity being a subsidiary of a credit institution, which purchases the cover assets from the credit institution by virtue of the provisions of the Bond Loan and Securitization Law, and guaranteed by the credit institution.

The reason for introducing the indirect issuance structure was that historically most Greek banks had issued a significant amount of notes under medium-term note (MTN) programmes containing negative pledge covenants, which did not allow the creation of security over the cover pool, as necessary for the direct issuance of covered bonds. However, all Greek banks having MTN programmes have now amended the terms of such programmes to carve out the security provided to holders of covered bonds from the scope of the negative pledge covenants, and therefore the need for the indirect issuance of covered bonds has been removed. In fact, the only indirect issuance of covered bonds has now been fully redeemed and it is to be expected that the regulator will likely not approve any future indirect issue of covered bonds.

III. COVER ASSETS

The type of assets that may form part of the cover pool is regulated by the Secondary Legislation by reference to assets referred to in a section of the Governor of the Bank of Greece Act nr. 2620/28.8.2009 regarding the calculation of capital requirements in relation to credit risk according to the standardised approach. Following the entry into force of the Capital Requirements Regulation, this reference should be read as a reference to Article 129 of the Regulation. Cover assets are primarily residential mortgage loans, loans secured by a mortgage on commercial properties, loans secured by a mortgage on ships and loans to or guaranteed by state entities. Residential and commercial mortgage loans may only be included in the cover pool if the property subject to the mortgage is situated in Greece and hence is under Greek law. The loans may be secured by mortgage prenotations instead of full mortgages (as is the practice for cost reasons in Greece). In addition, exposures to credit institutions and investment services undertakings may be included in the cover pool up to an aggregate limit of 15% of the nominal value of the outstanding covered bonds. Derivatives may also be included in the cover pool to the extent that they are used exclusively for the purpose of hedging the interest rate, FX or liquidity risk. To the extent that the counterparties to such derivatives are credit institutions and investment services undertakings (as opposed to state entities or central counterparties in regulated markets), the net present value of derivatives included in the pool is included in the above 15% limit. Finally, the cover assets may be substituted by certain marketable assets but only up to the amount by which the aggregate nominal value of the cover assets including accrued interest exceeds the nominal value of the outstanding covered bonds including accrued interest.

IV. VALUATION AND LTV CRITERIA

Loans secured by residential mortgages are required to have a loan-to-value (LTV) ratio of 80%, whereas loans secured by mortgages over commercial properties and ships are required to have an LTV ratio of 60%. Loans with a higher LTV ratio may be included in the cover pool, but they are taken into account for the calculation of the statutory tests described below only up to the amount indicated by the LTV ratio. Thus e.g. a loan of 900,000 Euros secured through a residential mortgage over a property valued at 1,000,000 Euros may be included in the cover pool but will be deemed for the purposes of the calculation of the statutory tests to be equal to 800,000 Euros.

The evaluation of properties must be performed by an independent valuer at or below the market value and must be repeated on a frequent basis, at least once every year in relation to commercial properties and once every three years in relation to residential properties (Article 208 of the CRR).

V. ASSET-LIABILITY MANAGEMENT

The Secondary Legislation provides tests that are required to be met for the full duration of the covered bonds.

More particularly, the Secondary Legislation provides for the following statutory tests:

(a) The nominal value of the covered bonds including accrued interest may not exceed at any point in time 95% of the nominal value of the cover assets including accrued interest.

(b) The net present value of obligations to holders of covered bonds and other creditors secured by the cover pool may not exceed the net present value of the cover assets including the derivatives used for hedging. This test must be met even under the hypothesis of a parallel movement of the yield curves by 200 basis points.

(c) The amount of interest payable of covered bonds holders for the next 12 months must not exceed the amount of interest expected to be received from the cover assets over the same period. For the assessment of whether this test is fulfilled derivatives entered into for hedging purposes are taken into account.

Tests (b) and (c) are performed on a quarterly basis. In case any of the tests is not met, the credit institution is obliged to immediately take the necessary measures to remedy the situation.

The results of the tests (a) to (c) above and the procedures used to monitor the compliance with such tests are audited on a yearly basis by an auditor independent of the statutory auditors of the credit institution.

Moreover, since the Bank of Greece approves each issuance of covered bonds, it would not approve any issuance in case the statutory tests (including the liquidity test) are not met. Therefore, a breach of the statutory (but not of any contractual) liquidity test would in practice lead to a programme freeze. Also, the failure to comply with the requirement to restore the statutory tests may lead to sanctions by the Bank of Greece. Apart from the regulatory sanctions provided by the Primary and the Secondary Legislation in case of breach of the above-mentioned legislation, the contracting parties may agree to additional sanctions, in particular, to alternative administration or to the event of default.

VI. TRANSPARENCY

Currently, the issuer's reporting obligations (as described in detail under paragraph on reporting duties of section VII) and the disclosure of the cover pool as conducted via the summary registered with the competent pledge registry for the establishment of a statutory pledge (for more details on this issue we cross-refer to paragraph on the cover pool monitor of section VII) are the basic transparency tools provided under applicable covered bonds legislation. So far in Greece no market or regulatory initiatives have been undertaken on the creation of a national transparency template, in line with the guidelines of the ECBC Label Initiative.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Cover pool monitor

The compliance with statutory tests, mentioned above, is audited by independent auditors. Such audit reports, as well as the quarterly compliance reports by the issuer, shall be submitted to the Bank of Greece as regulator.

Prerequisites for the issuance of covered bonds

According to the Primary Legislation, covered bonds may be issued by credit institutions having Greece as home Member State. However, in case of issuance of covered bonds by a credit institution having as home State another Member State of the European Economic Area (EEA), and provided that they are characterised as covered bonds in accordance with the law of such Member State, the provisions of the Primary Legislation on the creation of a statutory pledge will apply in relation to claims under Greek law, as well as the tax exemptions which apply to Greek bonds. Therefore, foreign banks established within the EEA having a significant loan portfolio in Greece may use the loans of such portfolio as part of the cover pool.

The Secondary Legislation sets additional prerequisites for the issuance of covered bonds. Specifically, the credit institutions issuing covered bonds:

> must have certain minimum risk management and internal control requirements including suitable policies and procedures for the issuance of covered bonds, organisational requirements, IT infrastructure and a policy for the reduction and management of risks deriving from the issuance of covered bonds, such as interest rate risk, counterparty risk, operational risk, FX risk and liquidity risk; and

> must have aggregate regulatory capital of at least 500 million Euros and a capital adequacy ratio of at least 9%.

Reporting duties of the issuer to the supervisor concerning covered bonds and cover pool

Credit institutions that issue (directly or indirectly) covered bonds shall provide in their financial statements and on their websites information on such covered bonds including the nominal value and net present value of the bonds and the cover pool and the net present value of derivatives used for hedging.

More particularly, pursuant to the Secondary Legislation there are the following disclosure requirements to the Bank of Greece until the end of March of each year in relation to data as of end of December of the year preceding:

> The results of an audit conducted pursuant to the provisions of the Secondary Legislation and following the processes and restrictions as set by the Secondary legislation, certified by an auditor.

> Detailed data of the cover pool assets that would confirm that the limits set under the Secondary Legislation are met, along with the information related to the revaluation of the real estate securing the mortgage and other loans;

> the following data and information:

a) weighted average interest-rate per category of assets and weighted average interest-rate of all cover pool assets;

b) the real estate values of the mortgages and of the other loans;

c) validation of the selected policy of risk hedging with detailed analysis of the degree of effectiveness of this; and

d) table of corresponding maturities of the covered bonds and corresponding assets of the cover pool and the derivatives.

Finally, all the credit institutions have to communicate to the Bank of Greece, within 30 days from the end of each quarter, concise information regarding the results from the tests provided under the Secondary Legislation as of the end of the 1st, 2nd and 3rd quarter.

Banking supervision in crisis

As described in detail under section VIII of this article, the Primary Legislation provides that in case of insolvency of the issuer, the Bank of Greece may appoint an administrator, regardless of the powers it may assign to a special liquidator pursuant to the generally applicable banking special liquidation provisions, if the trustee does not do so.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Segregation of cover assets

In case of a direct issuance, the cover assets are segregated from the remaining estate of the credit institution through a pledge constituted by operation of law (statutory pledge). In case of assets governed by a foreign law (which will typically include *inter alia* claims from derivative contracts), a security interest must be created in accordance with such foreign law. The statutory pledge and the foreign law security interest secure claims of the holders of covered bonds and may also secure (in accordance with the terms of the covered bonds) other claims connected with the issuance of the covered bonds, such as derivative contracts used for hedging purposes. The statutory pledge and any foreign law security interest are held by a trustee for the account of the secured parties.

The claims constituting cover assets are identified by being listed in a document signed by the issuer and the trustee. A summary of such document is registered in the pledge registry of the seat of the issuer. Such summary document includes within its content a description of the assets that constitute the cover pool. Claims may be substituted and additional ones may be added to the cover pool through the same procedure.

The Primary Legislation creates an absolute priority of holders of covered bonds and other secured parties over the cover pool. The statutory pledge supersedes the general privileges in favour of certain preferred claims (such as claims of employees, the Greek State and social security organisations) under the Code of Civil Procedure. Furthermore, upon registration of the summary of the document listing the claims included in the cover pool, the issuance of the covered bonds, the establishment of the statutory pledge and the foreign law security interest and the entering into of all contracts connected with the issuance of the covered bonds are not affected by the commencement of any insolvency proceedings against the issuer.

In case of an indirect issuance or a direct issuance guaranteed by an SPE, the cover pool assets are segregated from the estate of the credit institution by virtue of their sale to the special purpose entity. For such transfer, the provisions of the Bond Loan and Securitization Law and the New Company Law apply, which provide equivalent protection from third party creditors and insolvency to the one the Primary Legislation provides in case of direct issuance.

It is worth noting that according to the Primary Legislation both in case of direct and of indirect issuance the cover assets may not be attached. This has the indirect result that the Greek law claims constituting cover assets are no longer subject to set-off, because, according to Article 451 of the Civil Code, claims which are not subject to attachment are not subject to set-off. This is important because under generally applicable law borrowers the loans to whom become cover assets would have had a right to set-off, which would reduce the value of the cover pool, for all counterclaims (including notably deposits) predating the creation of the pledge or the transfer of the claims, as the case may be.

No specific provisions exist in relation to voluntary overcollateralisation. As a result, the segregation applies to all assets of the cover pool, even if their value exceeds the minimum required by law. The remaining creditors of the credit institution will only have access to any remaining assets of the cover pool after the holders of the covered bonds and other creditors secured by the cover pool have been satisfied in full.

Bankruptcy remoteness of and impact of insolvency proceedings on covered bonds

According to the Secondary Legislation, covered bonds do not automatically accelerate upon insolvency of the credit institution having issued (in a direct issuance structure) or guaranteed (in an indirect one) the covered bonds.

Pursuant to the Primary Legislation, as amended, the bond loan programme may provide that either from the outset or following the occurrence of certain events, as, indicatively, initiation of insolvency proceedings against the issuer, the trustee will be entitled to assign or undertake the collection and management, in general, of the cover assets by application *mutatis mutandis* of the Bond Loan and Securitization Law.

Additionally, the Primary Legislation provides that in case of insolvency of the issuer, the Bank of Greece may appoint an administrator, regardless of the powers they may assign to a supervisor or liquidator pursuant to Articles 137 and 145 of Law 4261/2014, if the trustee does not do so. The proceeds coming both from the collections of the claims, that are included in the legal pledge and from the realisation of the rest of the assets which are subject to the legal pledge, are applied towards the repayment/redemption of the bonds and of the other claims, which are secured by the legal pledge, pursuant to the terms of the bond loan.

The provisions of the Bond Loan and Securitization Law are respectively applied in the sale, transfer, collection and administration, in general, of the assets comprising the cover.

In case of an indirect issuance, the obligations of the credit institution under the Guarantee are automatically accelerated in case of bankruptcy by virtue of the generally applicable provisions of Bankruptcy Law, but this does not lead to automatic prepayment of the covered bonds. On the contrary, the terms of the covered bonds may provide that the proceeds of the Guarantee will be placed in a special account to be used for the servicing of the covered bonds.

Access to liquidity in case of insolvency

Paragraph 9 of the Primary Legislation provides that the trustee can be entitled, pursuant to the terms of the programme and the legal relationship between the trustee and the bondholders, to sell and transfer the cover assets, and to use the net proceeds of such sale in order to redeem the bonds which are secured by the legal pledge, derogation from Articles 1239 and 1254 of the Civil Code.

The above-mentioned sale may occur by virtue of the Bond Loan and Securitization Law or the application of the generally applicable provisions.

Exercise of the claims of covered bondholders against the remaining assets of the credit institution

The purpose of the Primary Legislation, as expressly stated in the introductory note to the law, was to ensure that holders of covered bonds would have dual recourse both to the cover pool as secured creditors and to the remaining assets of the credit institution ranking as unsecured and unsubordinated creditors. This was also expressly stated in the Secondary Legislation.

The programme of the covered bonds may provide that more than one series or issues of bonds may be secured through a single statutory pledge.

The programme may also provide on any other issue related to the priority in satisfaction of the covered bond holders and the way they are organised in a group and they are represented, by derogation from the New Company Law. Furthermore, the parties may agree to apply a foreign law on these matters.

Protection of depositors

In order to not jeopardise the interests of depositors in case of insolvency of a credit institution due to the segregation (discussed above) of high quality assets in favour of the holders of covered bonds, the Secondary Legislation provides that, in case the cover assets exceed significantly the amount of 20% of the available assets of the credit institution on an unconsolidated basis, the Bank of Greece may impose additional capital adequacy requirements. For the purposes of this calculation available assets are considered to be all assets of the credit institution excluding: (i) assets subject to securitisation; (ii) assets subject to reverse repo agreements; and (iii) assets encumbered in favour of third parties. In exercising its discretion to impose additional capital adequacy requirements the Bank of Greece will take into account qualitative considerations such as:

(i) any deterioration of the average quality of the remaining available assets after the issuance of covered bonds; (ii) the increase of the liquidity of the credit institution combined and any positive effects it may have on its credit rating and prospects; and (iii) the results of additional stress tests. As of November 2014, the authority to impose additional capital requirements was conferred to the European Central Bank subject to and in accordance with the provisions of Regulation (EU) 1024/2013.

After the entry into force of the Capital Requirements Regulation, it should be deemed that provisions of national law on capital requirements have been tacitly abolished. This would apply to the above provision of the Secondary Legislation. The purpose of protecting depositors from an excessive encumbrance of assets is provided indirectly by Article 45 of Directive 2014/59/EU (the "Banking Recovery and Resolution Directive" or "BRRD")[1], which provides for a minimum requirement of own funds and eligible liabilities, as covered bonds and other secured liabilities are not eligible according to this provision.

1 Greece transposed the BRRD through law 4335/2015.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The risk-weighting of covered bonds (both Greek and foreign) is regulated by Article 129 of the CRR. According to this, bonds falling within the provisions of Article 52(4) of the UCITS Directive, as amended and in force, are eligible for preferential treatment, provided that the cover pool consists of the assets enumerated in paragraph 1 of Article 129 of the CRR and the provisions of paragraph 7 of the same article regarding the information provided to holders of covered bonds are met. By way of exception, bonds issued before the 31st December 2007 and falling within the provisions of Article 52(4) of the UCITS Directive were considered as covered bonds, even if the cover assets did not comply with the provisions of the CRR.

Directly issued Greek covered bonds comply with both the UCITS Directive, as amended and in force, and the CRR and, therefore, have the reduced risk-weighting mentioned above in Greece and should also have it in other EU member states. In relation to indirectly issued covered bonds, it must be noted that they do not fall within Article 52(4) of the UCITS Directive, as amended and in force, because they are not issued by a credit institution.

Issuers: There are four issuers in Greece: Alpha Bank; National Bank of Greece; Eurobank and Piraeus Bank.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/66/Greek_Covered_Bonds

COVERED BOND · LABEL · **:** Alpha Bank A.E. (1 pool).

3.17 HUNGARY

By Rita Bozzai and Illés Tóth, Takarék Mortgage Bank

I. FRAMEWORK

Act No. XXX of 1997 on Mortgage Banks and Mortgage Bonds (Mortgage Bank Act) contains the specific rules applicable to mortgage banks and mortgage bonds. Act No. CCXXXVII of 2013 on Credit Institutions and Financial Enterprises is applicable generally to the establishment, operation, supervision and liquidation of mortgage banks, unless otherwise provided by the Mortgage Bank Act. The Directive of the European Parliament and of the Council on the Issue of Covered Bonds and Covered Bond Public Supervision and Amending Directives 2009/65/EC and 2014/59/EU will be applied from 8 July 2022.

II. STRUCTURE OF THE ISSUER

Mortgage banks are specialised credit institutions in Hungary whose business activity is restricted, in principle, to mortgage lending, mortgage refinancing and auxiliary financial services: mortgage banks grant financial loans secured by mortgages on real estate property located on the territory of Hungary and other European Economic Area (EEA) countries. Funds will be raised by way of issuing mortgage bonds. In the Hungarian banking sector only mortgage banks are entitled to issue mortgage bonds ("*jelzáloglevél*"). Cover assets will be held on the balance sheet of the mortgage bank. All the mortgage bonds of a single mortgage bank are covered by the same (one single) cover pool which is only open to changes with the prior permission of the coverage supervisor, acting in the interest of mortgage bond holders.

III. COVER ASSETS

The Mortgage Bank Act provides that mortgage banks shall always possess cover surpassing the principal of outstanding mortgage bonds and the interest thereon both on a nominal basis and based on present value calculation. Decree No. 40/2005. (XII.9.) of the Minister of Finance contains the detailed provisions on the present value calculation of cover assets and the methodology of stress tests to be published on a regular basis. Furthermore, mortgage banks shall prepare a manual of keeping the register of cover assets ("*fedezet-nyilvántartás*"), which also needs the approval of the Magyar Nemzeti Bank (MNB) in its capacity as financial supervisory authority and the coverage supervisor.

Loans secured by a residential real estate can be taken in cover up to 70% of the mortgage lending value of the property. In case of loans secured by commercial real estate the limit is 60%.

Mortgage bonds are covered by loans secured by mortgages ("*jelzálogjog*"), independent mortgage liens ("*önálló zálogjog*"), or by mortgages and joint and several surety assumed by the Hungarian State ("*állami készfizető kezességvállalás*"). Supplementary coverage may exclusively consist of liquid assets listed in the Mortgage Bank Act and may not exceed 20% of the total coverage. Pursuant to the Mortgage Bank Act, cover assets must be entered into the register of cover. The availability and quality of cover assets is permanently monitored by the coverage supervisor, reports on availability and quality of cover assets are disclosed on a daily basis.

According to Section 14 (5) of the Mortgage Bank Act, in the case when mortgage bonds and their coverage are not denominated in the same currency, the mortgage bank is obligated to hedge the currency exchange risk by entering into derivative transactions. Section 3 (10) of the Mortgage Bank Act provides that mortgage banks are entitled to conclude such transactions exclusively for hedging purposes, i.e. risk management and liquidity. The Mortgage Bank Act entitles mortgage banks to include derivatives concluded with the aforementioned objectives in the ordinary coverage as well.

IV. VALUATION AND LTV CRITERIA

The rules of calculation of the mortgage lending value ("*hitelbiztosítéki érték*") are included in the Decree of the Minister of Finance No. 25/1997 on the Calculation Methods of the Mortgage Lending Value of Real Estate not Qualifying as Agricultural Land and the Decree of the Minister of Agriculture No. 54/1997 on the Calculation Methods of the Mortgage Lending Value of Real Estate Qualifying as Agricultural Land. Both decrees prescribe the use of comparative methods, and prescribe the application of the principle of carefulness in the valuation process. Furthermore, they also determine the validity of the valuation report.

Mortgage banks may also provide appraisal services to determine the market value and the mortgage lending value of real properties.

Mortgage lending value calculation provisions refer to the sustainable aspects of the property. The mortgage bank's internal regulation for determining mortgage lending value is based on methodological principles defined in the above decrees. Such internal regulations are also subject to the former approval of the MNB.

V. ASSET – LIABILITY MANAGEMENT

As indicated above, the Mortgage Bank Act provides that mortgage banks shall always possess cover surpassing the principal of outstanding mortgage bonds and the interest thereon. Mortgage banks shall comply with the above requirements as follows:

> The aggregate amount of the outstanding principal claims considered as coverage, reduced by the amount of any value adjustments, shall exceed 100% of the amount of the nominal value of the outstanding mortgage bonds; and

> The aggregate amount of interest accrued on the outstanding principal claims considered as coverage, reduced by the amount of any value adjustments, shall exceed 100% of the amount of interest accrued on the nominal value of the outstanding mortgage bonds (Section 14 (2) of the Mortgage Bank Act).

Under Section 14 (4) of the Mortgage Bank Act the amount of coverage for mortgage bonds shall always be calculated and published at their present value as well.

Cash flow mismatch between cover assets and cover bonds is furthermore reduced by special prepayment restrictions on the borrowers' side.

VI. TRANSPARENCY

Mortgage banks shall publish the amount of the nominal value and the accrued interest of the outstanding mortgage bonds as well as the value of the coverage assets in a national daily newspaper and in the Exchange Journal as of the last day of each quarter, before the last day of the next month. Such figures need to be certified by the coverage supervisor and disclosed to the MNB as well. Based on the amendment of MNB's Business Conditions of forint and foreign exchange transactions – effective from 11 November 2019 – domestic mortgage bond issuers are required to publish on their own websites the transparency report defined by the MNB at the end of each quarters with the reporting date of the end of the previous quarter, as a condition for ensuring the repo-eligibility of issued mortgage bonds at MNB.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The coverage supervisor (cover pool monitor) shall be appointed by the mortgage bank and approved by MNB. According to Section 16 of the Mortgage Bank Act, a company auditor or an auditor may be appointed; however, the coverage supervisor may not be identical with the auditor of the mortgage bank.

As a matter of fact, Hungarian mortgage banks have had one of the "big four" audit companies as coverage supervisor from the beginning of their operations. The coverage supervisor is responsible for monitoring and certifying, on a permanent basis:

> the existence of eligible security; and

> the registration of the eligible security in the coverage register. In accordance with Section 11 (2) (n) of the Mortgage Bank Act, a certificate from the coverage supervisor shall be attached to each mortgage bond regarding the existence of the coverage.

According to section 16 (7) of the Mortgage Bank Act, a coverage supervisor may be appointed for a fixed period of time, not exceeding five years, however, he may be re-appointed following the termination of the period of his appointment. Although the contract of appointment concluded between the mortgage bank and the coverage supervisor is governed by civil law, it may not be lawfully terminated without the approval of the MNB. Within the scope of his coverage supervision activities, the coverage supervisor may not be instructed by the mortgage bank.

The MNB is responsible for verifying the compliance of the credit institutions, including the mortgage banks, with the Credit Institutions Act and other acts e.g. the Mortgage Banks Act, and applicable banking regulations. The MNB is entitled to impose various sanctions on credit institutions, including warnings of non-compliance, withdrawing licences and imposing fines on credit institutions and their management. Section 22 and 23 of the Mortgage Bank Act provides that the Hungarian Financial Supervisory Authority shall exercise special supervision over mortgage banks in addition to the provisions of the Credit Institutions Act and the provisions of the Capital Markets Act. Within the framework of such special supervision, MNB shall draw up an analysis schedule and conduct on site audits of mortgage banks according to the analysis schedule it compiles.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Pursuant to the Mortgage Bank Act a cover pool administrator will be delegated to the insolvent mortgage bank to safeguard the interests of bondholders and derivative partners. The cover pool administrator cannot be identical with the insolvency administrator of the mortgage bank. The cover pool administrator should provide for the timely satisfaction of principal and interest claims of bondholders and derivative partners in case of a possible insolvency situation. The cover pool administrator will only safeguard the interests of bondholders and derivative partners and will also have an access to the part of assets not qualifying as coverage and those not recorded in the cover register. The transfer of the portfolio or parts of it to another mortgage bank may grant for liquidity, however, the transfer of the portfolio or parts of it requires the prior written consent of the MNB.

As a general rule, Section 20/A (4) of the Mortgage Bank Act declares that the cover pool administrator is obliged to maintain the liquidity of the pool on a constant basis, allowing transfer of the pool or parts of it to another mortgage bank and to enter into derivative transactions. Within two years after the commencement of the liquidation procedure, both the cover pool administrator and the bondholders may request the court to complete the cover from the general insolvency estate (Section 20/A (7)). The cover pool administrator shall be entitled to receive remuneration for his work and refund of appropriate expenses. Although holders of the mortgage bonds, derivative partners or the coverage supervisor may inform MNB or the only competent Metropolitan Court Budapest on issuer default, after proving all relevant circumstances, it is only the MNB who is entitled to initiate an insolvency proceeding against the mortgage bank.

Hungarian legal provisions also provide for a wide-range of measurements, including extraordinary measurements, to be taken by the MNB prior to any insolvency situation.

For example, the MNB is entitled to delegate a supervisory commissioner to the mortgage bank. This extraordinary measurement may be taken by the MNB prior to the commencement of any insolvency procedure – in accordance with Section 157 (1) of the Credit Institution Act. In this case both the rights of the owners of the mortgage bank and the rights of the management of the mortgage bank will be restricted in order to guarantee the satisfaction of the claims of the mortgage bank’s creditors, e. g. bondholders’ and derivative partners’ claims.

Pursuant to the Section 21 (1) in the course of execution proceedings against a mortgage bank, Act no LIII of 1994 on Execution by Court shall be applied with the deviations set forth in subsections (2)-(3).

Moreover, pursuant to the Section 58 (1) c) of the Act XXXVII of 2014 on the further development of the system of institutions strengthening the security of the individual players of the financial intermediary system: the scope of the bail-in does not extend to mortgage covered bonds.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR). Hungarian mortgage bonds comply with the requirements of Article 52(4) UCITS as well as with those of Article 129(1) CRR.[1]

Hungarian covered bonds issued in euro zone countries qualify as European Central Bank (ECB) eligible.

X. ADDITIONAL INFORMATION

The 20/2015. (VI.29.) MNB Decree introduced the Mortgage funding adequacy ratio (MFAR) from 1 April 2017. MFAR = HUF liabilities backed by household mortgage loans / net stock of residential HUF mortgage loans with a residual maturity longer than 1 year. The original minimum required level of the ratio was set at 15%, while it was raised to 20% from 1 October 2018. The ratio will be increased further to 25% from 1 October 2019. The ratio will not be changed in 2020, but the Hungarian Central Bank announced some more requirements in connection with the potential investor base, the market making and the listing.

The Budapest Stock Exchange (or BSE) in cooperation with the MNB introduced three mortgage bond indices in December 2017. The indices constitute of fixed rate HUF denominated mortgage bonds with all the requirements defined in the BSE's handbook. BMBX Total Return, BMBX Yield 3Y and BMBY Yield 5Y indices are available at the BSE website.

Issuers: OTP Jelzálogbank Zrt. (OTP Mortgage Bank Ltd.), Takarék (ex FHB) Jelzálogbank Nyrt. (Takarek (ex FHB) Mortgage Bank Ltd.), UniCredit Jelzálogbank Zrt. (UniCredit Mortgage Bank Ltd), Erste Jelzálogbank Zrt. (Erste Mortgage Bank Ltd.), and K&H Jelzálogbank Zrt. (K&H Mortgage Bank Ltd.).

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/27/Hungarian_Covered_Bonds

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.18 ICELAND

By Eiríkur Magnús Jensson and Kristín Erla Jónsdóttir Arion Bank

I. FRAMEWORK

In Iceland, the issuance of covered bonds is governed by the Icelandic Covered Bond Act, which came into force on 20 March 2008 (Lög nr. 11/2008 um sértryggð skuldabréf, hereinafter the "**ICBA**"). The ICBA supersedes the general bankruptcy law to the extent that it grants covered bond investors a priority claim on eligible cover assets (ICBA: Chapter VII). Rules of the Financial Supervisory Authority no. 528/2008 (Reglur nr. 528/2008, hereinafter the "**ICBR**") established by the Icelandic Financial Supervisory Authority (Fjármálaeftirlitið, hereinafter the "**FME**") complement the legislation. These rules define in more detail the criteria for obtaining a covered bond issuance license, the universe of eligible cover assets, valuation procedures for eligible cover assets, asset and liability management, and the form and maintenance of the cover register.

II. STRUCTURE OF THE ISSUER

The FME grants licenses for the issuance of covered bonds. Licenses to issue covered bonds can only be granted to licensed commercial banks, savings banks and credit undertakings. To qualify as an issuer, certain criteria must be met. These criteria include the submission of a financial plan, confirmed by a state authorised public accountant, proving the issuer's financial stability and that the issuance is in accordance with the ICBA. The FME has the right to withdraw the license should the issuer be in material breach of the ICBA or if the issuer has failed to issue covered bonds within one year of receiving the license (Table 1).

> Table 1: Licence needed to issue covered bonds

Requirements for issuance license

- Issuer must supply the FME with a board resolution that the board approves the application for a covered bond license.
- Description of the proposed bond issuance and how the issuer intends to keep and organise the covered bond register.
- Information about the covered bond register, e.g. how the issuer will maintain the register as well as how the register will be supervised.
- The FME can allow an issuer to convert previously issued bonds used to finance assets that are eligible under ICBA into covered bonds.
- The issuer well plan, confirmed by a public accountant, proving the issuer's financial stability for at least the next three years; a description of the proposed covered bond issuance and how the issuer intends to organise and administrate the covered bond issuance; and the covered bond register as well as written confirmation from the issuer that he and the planned bond issue comply with the ICBA and ICBR.
- The issuer must submit information about IT systems used in relation to the covered bond issuance.
- The issuer must submit any other information that is relevant for the proposed bond issuance.
- A written statement from the issuer that it and the issue fulfil the requirements made by the ICBA and the ICBR.

The cover assets represent a claim of the covered bond issuer and remain on the balance sheet. There is no subsequent transfer of cover assets to another legal entity. The covered bonds are direct, unconditional obligations on the part of the issuer. Outstanding covered bonds are backed in their entirety by the cover pool. Hence, there is no direct legal link between a single cover asset and a particular covered bond series. In the event of issuer insolvency, the cover pool is bankruptcy remote from the general insolvency estate of the issuer and exclusively available to meet outstanding claims under the issue of the covered bond investors. It should also be noted that the covered bond investors enjoy recourse to the insolvency estate of the issuer, ranking pari passu with senior unsecured investors.

III. COVER ASSETS

Eligible assets in the covered bond register are mortgage loans and public sector assets (ICBA Chapter II, Article 5). The ICBA does not require a separate cover pools for mortgage and public sector cover assets. Both asset classes can be mixed in one cover pool. Icelandic covered bond issuers have issued covered bonds where the asset register consists exclusively of residential mortgages.

Eligible assets ("**Cover Assets**") according to ICBA are:

> Mortgages secured by residential housing in member states[1];

> Mortgages secured by industrial, office or commercial property in member states;

> Mortgages secured by farms and other real estate used for agricultural purposes in member states; and

> Public sector assets defined as bonds issued by the Icelandic state or other member state, a municipality in Iceland or in another member state, or guaranteed by such public authority.

Derivative contracts

The ICBA authorise the use of derivatives for hedging interest and currency risk. The derivatives must be structured such that premature termination is not triggered by an issuer default or a demand by the counterparty. Derivative counterparties must have a rating from a rating agency approved by the FME. The minimum is a long-term rating of A3/A-/A- (Moody's/S&P/Fitch) or short-term rating of P2/A2/F2. If the counterparty's rating falls below the minimum level, the issuer of covered bonds can:

> Request additional collateral;

> Terminate the derivative contract and open a new derivative contract with a counterparty that meets the minimum rating requirement, or;

> Request that the counterparty provides a guarantee from a third party that meets the minimum rating requirement.

Substitute assets

The ICBA allows for the inclusion of the following assets as Substitute Collateral (Article 6):

> Demand deposits with a regulated financial undertaking;

> Deposits with or claims against a member state or a central bank in a member state;

> Claims against other legal entities which, the FME views as not involving greater risk than the aforementioned options.

Further, FME may approve the following as substitute collateral:

> Claims against municipalities in member states;

> Claims against a regulated financial firm other than demand deposits with a regulated financial undertaking (as referred to above), provided the final maturity of the claim is within one year of issuance;

1 Member state: a state which is a party to the Agreement on the European Economic Area.

> Claims against non-Icelandic development banks listed in rules adopted by the FME;
> Claims against other legal entities which do not involve greater risk than the substitute collateral referred to in other items of this paragraph.

It should be noted that Substitute Collateral may not comprise more than 20% of the value of the cover pool. The FME may however authorise an increase in the proportion of substitute collateral in the cover pool to as much as 30% of its value.

IV. VALUATION AND LTV CRITERIA

The ICBA defines valuation principles for the properties that are used as a Cover Assets (ICBA: Chapter III, Article 7). An assessment of the market value of real estate shall be based on the selling price in recent transactions with comparable properties. If the market value of real estate is not available, it shall be determined by a specific valuation. The valuation shall be based on generally accepted principles for market valuation of real estate. Among the data that can be used as a basis is data on real estate price developments from the Land Registry of Iceland, together with other generally accepted systematic collection of real estate price data.

If an issuer assesses the market value of real estate, the Independent Inspector (as defined below) must verify that the appraisal is based on a generally accepted methodology. The Independent Inspector may re-assess the market price of one or more properties if he/she regards the valuation as incorrect.

An appraisal of the market value of real estate must be in writing and must specify the methodology used, who carried out the appraisal and when it was made.

For the various mortgage types eligible as Cover Assets, the maximum LTV ratios apply (ICBA: Chapter III, Article 7):

> 80% of the value for real estate.
> 70% of the value for real estate intended for agricultural use (some restrictions apply).
> 60% of the value for real estate, where the property is intended for office or commercial use.

V. ASSET – LIABILITY MANAGEMENT

The ICBA requires that the nominal value of the Cover Assets at all times exceed the aggregate nominal value of claims arising from outstanding covered bonds against the issuer (ICBA: Chapter V, Article 11). In addition, the law requires that on a net present value (NPV) basis, cover assets, including derivatives, always exceed the corresponding value of the interest and principal of outstanding covered bonds, taking into account the effects of stress-test scenarios on interest and currency risk set by the FME. The FME defines the stress test for interest-rate risk as a sudden and sustained parallel shift in the reference curve by 100bps up and down. The reference curve is based on Icelandic government bonds for covered bonds in Icelandic krona but swap rate curves for other currencies. Likewise, it defines currency risk as a 10% sudden and sustained change in the relevant foreign exchange rate between the currency of covered bonds and the currency of cover assets (ICBR: Chapter 4, Article 8). The ICBA does not require a mandatory level of minimum overcollateralisation ("**OC**"). However, the issuer can adhere to a self-imposed OC level for structural enhancement, as the ICBA protects any OC in the cover pool in the event of issuer insolvency.

Finally, the issuer shall ensure that the cash flow with respect to the Cover Assets, derivatives agreements and the covered bonds are such that the issuer is always able to meet its payment obligations towards holders of covered bonds and counterparties in derivatives agreements (ICBA: Chapter V, Article 12). The issuer should be able to account for these funds separately.

VI. TRANSPARENCY

The issuers currently present information regarding their cover pool and outstanding covered bonds on a monthly or at least on quarterly basis. This information is currently available on the issuer's website.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Issuers of covered bonds fall under the supervision of the FME, which monitors the issuers' compliance with the ICBA and other related regulatory provisions (e.g. ICBR). If a covered bond issuer is in a material breach of its obligation under the legal framework, the FME can give the issuer a formal warning or revoke the issue license altogether. The FME may also revoke a license if the institution has declared that it has no intention to use the license to issue covered bonds or if the institution has not made use of the license within a year from the date of receiving the license. The revocation may be combined with an injunction against continuing the operations and with the imposition of a conditional fine. In any case, the FME must determine how the operations should be wound up (ICBA: Chapter IX, Articles 24–29).

Each issuer must appoint an independent and suitably qualified cover pool inspector (the "**Independent Inspector**" and such appointment must be validated by the FME. The duties of the Independent Inspector are to monitor the register and verify that the covered bonds, the derivatives agreements and the Cover Assets are correctly recorded. The Independent Inspector also ensures compliance with matching and market risk limits in accordance with ICBA. The institution is obliged to provide the Independent Inspector with any information requested relating to its covered bond operations. The Independent Inspector must submit a report of the inspection to the FME on an annual basis and must notify the FME as soon as he/she learns about an event deemed to be significant to the supervisory authority (ICBA: Chapter VII, Articles 21–23).

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Cover register

The issuer must keep a detailed register of Cover Assets derivative contracts and outstanding covered bonds (ICBA: Chapter VI, Section 13). The law further specifies the form and content of such a register, which must be easily accessible to the FME and the Independent Inspector. The registration legally secures covered bond holders and derivatives counterparties a priority claim on the cover pool in the event of issuer insolvency (ICBA: Chapter 7, Section 15). Prior to an issuer being declared insolvent, cash flows accruing from the Cover Assets must be accounted for separately by the issuer. In the event of issuer default, covered bond investors and derivative counterparties have the same priority claim on these funds as they have on the cover pool. Moreover, cash flow accruing from the Cover Assets following issuer insolvency must be registered in the cover pool.

Issuer insolvency

In the event of issuer insolvency, the Cover Assets and the respective covered bonds are segregated from the insolvency estate of the issuer. An issuer default does not trigger the premature termination of registered derivative contracts. Covered bond holders and registered derivative counterparties have a priority claim on the cover pool and cash that derives from the pool, ensuring timely repayment to original agreed terms, as long as the pool complies with the ICBA. It should be noted, however, that the cover pool does not constitute a separate legal estate.

Cover pool insolvency and preferential treatment

In the event that the cover pool breaches eligibility criteria, covered bonds are accelerated. Covered bond investors and derivative counterparties would have priority claim on the proceeds from the sale of the cover assets, ranking pari passu among themselves. If the proceeds are insufficient to repay all liabilities on outstanding covered bonds, covered bond investors and derivative counterparties have an ultimate recourse to the insolvency estate of the issuer, ranking pari passu with senior unsecured investors.

Survival of OC

Any OC present in the cover pool at the time of issuer insolvency is bankruptcy-remote provided it is identified in the cover pool register. Indeed, the CBIA requires full repayment of outstanding claims on covered bonds and registered derivatives before Cover Assets are available to satisfy claims on unsecured creditors. The law does not provide for the appointment of a special cover pool administrator in case of issuer insolvency. The receiver-in-bankruptcy represents the interest of both the covered bond investors and the unsecured investors. The receiver has the right to use OC to pay advance dividends to other creditors of the bankrupt issuer if the pool contains more assets than necessary. If the Cover Assets later prove to be insufficient, these advance dividend payments can be reclaimed.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR[2]). Icelandic covered bonds comply with the criteria of Article 52(4) UCITS and with the covered bond criteria defined in Article 129(1) CRR. The ICBA explicitly lists mortgages against property for agricultural purposes and mortgages against the pledging of tenant-owner rights as eligible cover assets, while the CRR does not. In addition, issuers can impose self-restrictions to ensure that their covered bond issues comply with the CRR. Icelandic covered bonds are not eligible for repo transaction with the Icelandic Central Bank.

X. ADDITIONAL INFORMATION

Legislative covered bonds in Iceland

Arion Bank and Íslandsbanki were both granted a license to issue covered bonds under ICBA in the fall of 2011 and both followed up by issuing covered bonds denominated in Icelandic krona to domestic investors. Landsbankinn was granted a license to issue covered bonds in April 2013 and issued their first covered bonds in June 2013. The banks use their covered bond programs to fund their residential mortgage portfolios.

A specific attribute of the Icelandic mortgage market is that the largest majority of Icelandic mortgages are inflation linked. This means that the principal of each mortgage follows the changes in consumer prices in Iceland. This has changed since 2011 when the banks started to offer fixed rate loans that were not tied to inflation. Normally, the bonds are registered at the Nasdaq Iceland (NASDAQ OMX Group) or another European stock exchange.

Issuers: There are currently three issuers in Iceland – Arion Bank, Íslandsbanki and Landsbankinn.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/108/Icelandic_Covered_Bonds

2 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.19 IRELAND

By Group Legal Services team, Bank of Ireland and Nick Pheifer, DEPFA BANK

I. FRAMEWORK

Irish covered bonds benefit from the protection of specific covered bond legislation in the Irish Asset Covered Securities Acts 2001 and 2007 (the "ACS Acts") and the regulations and regulatory notices issued thereunder. The framework provides for the issuance of asset covered securities ("ACS") secured on public credits, mortgage credits (each, as defined below) and commercial mortgage credits (being obligations secured on commercial property assets). There is currently no issuer of ACS secured on commercial mortgage credits in the Irish market and consequently this chapter focuses on the framework applicable to ACS secured on public credits and mortgage credits.

II. STRUCTURE OF THE ISSUER

An issuer of ACS (an "ACS Issuer") must be an authorised credit institution and also be registered under the ACS Acts as a 'designated' credit institution. Such designated status is granted by the Central Bank of Ireland ("CBI") and an ACS Issuer will be registered as a designated public credit institution (a "DPCI") (authorised to issue public credit covered securities) and/or as a designated mortgage credit institution (a "DMCI") (authorised to issue mortgage credit covered securities).

The ACS Issuer holds the assets backing the ACS on its balance sheet. The collection of either mortgage credit assets or public credit assets (the "cover assets") backing the issue of ACS (the "cover pool") is dynamic in the sense that the ACS Issuer may move cover assets in and out of the cover pool provided that it does so in accordance with the provisions of the ACS Acts. The ACS Issuer must maintain a register (a "cover register") of all ACS issued, all cover assets hedge contracts and the cover assets (including any substitution assets and any cover assets constituting overcollateralisation) and any amendment to the cover register can only be effected with the approval of a cover-assets monitor (the "CAM") which is an independent professional third party, or the CBI (see further section VII below).

Statutory preference

The claims of ACS holders are protected by a statutory preference under the ACS Acts. As preferred creditors, upon an ACS Issuer insolvency, ACS holders are entitled to have recourse to the cover assets included in the cover pool ahead of all other creditors of the ACS Issuer other than the super-preferred creditors (the CAM and NTMA – see further section VIII below) and pari passu with other preferred creditors (such as the pool hedge counterparties – see further section V below). In this way the ACS holders have protection against the general Irish insolvency laws.

Restriction on business activities

The ACS Acts provide that an ACS Issuer may not carry on a business activity other than a permitted business activity as set out in the ACS Acts. Permitted business activities comprise dealing in and holding public credit assets or mortgage credit assets (depending on the ACS Issuer's designation) and limited classes of other assets, engaging in activities connected with the financing and refinancing of such assets, entering into certain hedging contracts, holding collateral under cover assets hedge contracts (referred to in the ACS Acts as "pool hedge collateral") and engaging in other activities which are incidental or ancillary to these activities. The ACS Acts limit the scope of non-core ACS business that an ACS Issuer can undertake by restricting its dealing in or holding of financial assets that are not otherwise eligible for inclusion in the cover pool to 10% of the total of all the ACS Issuer's assets.

III. COVER ASSETS

The classes of assets which are eligible for inclusion in a cover pool are determined by the designation of the ACS Issuer.

DPCIs

The classes of asset eligible for inclusion in the cover pool of a DPCI ("public credit assets") are financial obligations (collectively, "public credits"), including obligations given as a guarantor or surety and indirect or contingent obligations, in respect of money borrowed or raised (whether in the form of a security that represents other public credit that is securitised or not) where the obligor is any one of the following:

> Central governments, central banks (each, a "Sovereign"), public sector entities, regional governments or local authorities (each, a "Sub-sovereign") in any EEA country;

> Sovereigns in Australia, Canada, Japan, New Zealand, the Swiss Confederation or the USA (each, an "Eligible Non-EEA Country");

> Sub-sovereigns in any Eligible Non-EEA Country; and

> Multilateral development banks or international organisations, in each case which qualify as such for the purposes of the Capital Requirements Regulation ("CRR").

Risk-weighting and credit worthiness tests apply to the categories of cover assets outside the EEA countries to comply with the CRR covered bond eligibility requirements. Sovereign obligations from an Eligible Non-EEA Country must have an independent credit rating of at least step 1. Sub-sovereign obligations from an Eligible Non-EEA Country must have an independent credit rating of at least step 1 and a risk-weighting at least equal to that of an institution, central government or central bank. Sovereign and Sub-sovereign obligations from an Eligible Non-EEA Country with credit ratings below step 1 but at least step 2 may also be included in the cover pool provided that in total they do not exceed 20% of the nominal amount of outstanding ACS

DMCIs

Those assets eligible for inclusion in the cover pool of a DMCI ("mortgage credit assets") are financial obligations (collectively, "mortgage credits"), including obligations given as a guarantor or surety and indirect or contingent obligations, in respect of money borrowed or raised (whether in the form of a security that represents other mortgage credit that is securitised or not) that are secured by a mortgage, charge, or other security on residential or commercial property that is located in any EEA country or any eligible Non-EEA country. This is subject to a concentration limit, for mortgage credit assets secured on commercial property, of 10% of the total prudent market value of all mortgage credit assets and substitution assets in the cover pool. Non-performing mortgage credit assets may not be added to a cover pool. Furthermore, a mortgage credit asset may not be counted as part of a cover pool if a building related to that mortgage credit asset is being or is to be constructed until the building is ready for occupation as a commercial or residential property. A mortgage credit institution may also include securitised mortgage credits in its cover pool subject to certain credit quality and other criteria and a concentration limit of 10% of the aggregate value of the related outstanding ACS.

Substitution assets

Substitution assets can be included in cover pools provided that they comply with applicable CRR requirements and certain other restrictions. These are deposits having a minimum credit rating of step 2 and a maximum maturity of 100 days with eligible financial institutions.

IV. VALUATION AND LTV CRITERIA

DPCI

Public credit assets maintained in the cover pool of a DPCI are ascribed a prudent market value equal to 100% of the amount of the related public credit outstanding on the date of valuation.

DMCI

The maximum prudent loan to value ("LTV") levels for mortgage credit assets included in the cover pool of a mortgage credit institution are 75% for mortgage credit assets backed by residential property and 60% for those backed by commercial property. Prudent LTV levels for mortgage credit assets in the cover pool can exceed the 75% threshold, however the balance of the mortgage credit above this threshold is disregarded for valuation purposes.

A DMCI is first required to determine the market value of a property asset at the time of origination. Property valuations are conducted by independent valuers. The DMCI then calculates the prudent market value of such property asset at the time of inclusion of the asset in the cover pool and also at such intervals (at least annually) as may be specified by the CBI. In addition, a DMCI is required to calculate the prudent market value of mortgage credit assets and securitised mortgage credits included in the cover pool on a quarterly basis, or more frequently if so instructed by the CAM, for the purposes of demonstrating compliance with the asset-liability and overcollateralisation requirements of the ACS Acts. In practice, the prudent market value of relevant property assets is calculated on a quarterly basis also as this calculation forms part of the valuation process for mortgage credit assets.

For these subsequent calculations, the DMCI must apply the house price index published by Permanent TSB and/or the house price index published by the Irish Central Statistics Office (depending on the date of origination) to the valuation obtained at origination, with same being verified by the CAM on a monthly basis.

V. ASSET-LIABILITY MANAGEMENT

The ACS Acts include important asset-liability controls to minimise various market risks.

> Duration matching: The weighted average term to maturity of a cover pool cannot be less than that of the related ACS.

> Overcollateralisation: The prudent market value of the cover pool must be at least 3% greater than the total of the principal amount of the related ACS in issue (see also Overcollateralisation below).

> Interest matching: The amount of interest payable on cover assets over a 12-month period must not be less than the amount of interest payable on the related ACS over the same 12-month period.

> Currency matching: Each cover asset must be denominated, after taking into account the effect of any cover assets hedge contract, in the same currency as the related ACS.

> Interest rate risk control: The net present value changes on the balance sheet of an ACS Issuer arising from (i) 100bps upward shift, (ii) 100bps downward shift and (iii) 100bps twist, in the yield curve, must not exceed 10% of the ACS Issuer's total own funds at any time.

Hedge contracts

Hedge contracts are used in the cover pool to minimise risks on interest rates, currency exchange rates, credit or other risks that may adversely affect the ACS Issuer's business activities that relate to an ACS or cover assets. All such hedge contracts are required to be entered on the cover register by the ACS Issuer. Pool hedge counterparties rank as preferred creditors, pari passu with the ACS holders, provided they are not in default of their financial obligations under that hedge contract. Upon the insolvency of an ACS Issuer, a hedge contract will remain in place subject to its terms. Any collateral posted under a hedge contract by a pool hedge counterparty must be recorded on a separate register maintained by the ACS Issuer.

Overcollateralisation

The ACS Acts prescribe a minimum overcollateralisation of ACS for DMCIs and DPCIs of 3% calculated on a present value basis. It has been the market practice for ACS Issuers to contractually commit to higher levels.

The CAM is responsible for monitoring the levels of legislative and contractual overcollateralisation. Upon an ACS Issuer insolvency, ACS holders will benefit from any cover assets which make up the overcollateralisation to the extent of their claims.

VI. TRANSPARENCY

Disclosure in financial statements

All ACS Issuers are required to make specific disclosures in relation to their cover assets in their annual financial statements.

DPCIs

A DPCI is required to disclose as at the date to which its financial statements are made up:

> the geographic location of its public credit assets and the volume and percentage of assets in each such location; and

> details of public credit assets secured on loans to multilateral development banks and international organisations and the volume and percentage of such assets.

DMCIs

A DMCI is required to disclose, in respect of the date to which its financial statements are made up, details of:

> the number of mortgage credit assets, broken down by amount of principal outstanding;

> volume and percentage of assets in each geographic location;

> the number and principal amounts outstanding of non-performing mortgage credit assets;

> whether or not any persons who owed money under mortgage credit assets had, during the immediately preceding financial year (if any), defaulted in making payments in respect of those assets in excess of EUR 1,000 (so as to render them non-performing for the purposes of the ACS Acts), and if so, the number of those assets that were held in the cover pool;

> the number of non-performing mortgage credit assets replaced with other assets;

> the total amount of interest in arrears in respect of mortgage credit assets that has not been written off;

> the total amounts of principal repaid and interest paid in respect of mortgage credit assets; and

> the number and the total amount of principal outstanding on mortgage credits that are secured on commercial property.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

One of the key features of the ACS Acts is the rigorous monitoring role undertaken by the CAM. The CAM is appointed by the ACS Issuer and approved by the CBI.

There are strict eligibility requirements for CAMs. A CAM must be a body corporate or partnership, comprising personnel or partners who are members of a professional representative body. It must demonstrate to the CBI that it is experienced and competent in (i) financial risk management techniques, (ii) regulatory compliance reporting and (iii) capital markets, derivatives, and, as applicable, public credit business and mortgage credit business. The CAM must also demonstrate that it has sufficient resources at its disposal and sufficient academic or professional qualifications and experience in the financial services industry to satisfy firstly, the designated credit institution and secondly, the CBI, that it is capable of fulfilling this role.

The CAM is responsible for monitoring the cover pool, the ACS Issuer's compliance with specific provisions of the ACS Acts and reporting any breaches to the CBI. The CAM issues regular reports to the ACS Issuer (every 1-4 weeks) and submits a report on a quarterly basis to the CBI.

Some of the CAM's principal obligations include: ensuring that the matching requirements of the ACS Acts with respect to the cover assets and the ACS are met; ensuring that the asset eligibility requirements are met; approving any inclusion in or removal from the cover register, of a cover asset, ACS or hedge contract; checking that the level of substitution assets included in the cover pool does not exceed the prescribed percentage; and ensuring that the legislative and contractual levels of overcollateralisation are maintained.

The CBI is responsible for supervising the ACS Issuers. The CBI may, with the consent of the Minister for Finance, revoke the registration of an ACS Issuer and/or suspend its business if such ACS Issuer breaches any provision of the ACS Acts. In addition, the CBI has wide-ranging powers under the Irish Central Banking legislation to impose significant fines and administrative sanctions on ACS Issuers and/or their senior management for contraventions of the ACS Acts.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

As noted above under section II, an ACS Issuer holds its cover assets on its balance sheet. However, the cover assets are ring-fenced from the other assets of the ACS Issuer for the benefit of ACS holders by virtue of (i) their being recorded on the cover register, and (ii) a statutory preference created by the ACS Acts.

Segregation: Cover register

Each ACS Issuer must maintain a cover register including the details of its ACS in issue, the cover assets and substitution assets backing its ACS and any cover assets hedge contracts in existence. The cover register is important as a cover asset or a cover assets hedge contract cannot be described as such unless and until it is recorded on the register. Their registration is prima facie evidence of such assets and hedge contracts being included in the cover pool, entitling the ACS holders and pool hedge counterparties to benefit from the insolvency protection specified in the ACS Acts in respect of such assets and hedge contracts. An ACS Issuer may only remove or amend a register entry with the consent of the CAM or the CBI which further safeguards the interests of ACS holders.

Preferential treatment of ACS holders

Once a cover asset has been entered in the cover register, it will remain a cover asset for the benefit of ACS holders and other preferred creditors until the CAM or the CBI has consented to its removal from the cover register and consequently, the cover pool. Cover assets included in a cover pool do not form part of the assets of the ACS Issuer for the purposes of insolvency until such time as the claims of ACS holders and other preferred creditors under the ACS Acts have been satisfied.

If the claims of the ACS holders (and other preferred creditors, including the pool hedge counterparties) are not fully satisfied from the proceeds of the disposal of the cover assets, such parties are, with respect to the unsatisfied part of their claims, to be regarded as unsecured creditors in the insolvency process.

Impact of insolvency proceedings on ACS and hedge contracts

Upon insolvency of an ACS Issuer, all ACS issued remain outstanding and all cover assets hedge contracts will continue to have effect, subject in each case, to the terms and conditions of the documents under which they were created.

The claims of ACS holders on the cover pool are protected by operation of law. Cover assets and hedge contracts that are included in a cover pool are not liable to interference by a bankruptcy custodian or similar person whether by attachment, sequestration or other form of seizure, or to set-off by any persons, that would otherwise be permitted by law so long as claims secured by the insolvency provisions of the ACS Acts remain unsatisfied. ACS holders have recourse to cover assets ahead of all other non-preferred creditors regardless of whether the claims of such other creditors are preferred under any other enactment or any rule of law and whether those claims are secured or unsecured.

The role of the manager and access to liquidity in case of insolvency

The ACS Acts makes provision for the management of the asset covered securities business of an ACS Issuer upon an ACS Issuer insolvency through the services of the Irish National Treasury Management Agency ("NTMA"). If no suitable manager can be found by the CBI or the NTMA, the NTMA will attempt to locate an appropriate body corporate as a new parent entity for the ACS Issuer. Failing that, the CBI will appoint the NTMA to act as a temporary manager until a suitable manager or new parent entity is found. Upon appointment, a manager will assume control of the cover assets, the asset covered securities business and all related assets of the ACS Issuer. The manager is required to manage the ACS business of the ACS Issuer in the commercial interests of the ACS holders and the pool hedge counterparties. The manager will have such powers as may be designated to it by the CBI under its notice of appointment. It is possible for a manager to obtain a liquidity facility through the use of a hedge contract, such hedge contract if recorded on the cover register would constitute a cover assets hedge contract for the purposes of the ACS Acts and the pool hedge counterparty would rank pari passu with ACS holders and any other pool hedge counterparties.

IX. RISK-WEIGHTING AND COMPLIANCE WITH EUROPEAN LEGISLATION

The ACS meet the requirements of Article 52(4) UCITS. The eligibility of cover assets set out in the ACS Acts also match the criteria for the preferential risk-weighting of covered bonds set out in the CRR[1]. The ACS Acts will require change to comply with the recently published Directive and Regulations on harmonising European Covered bonds (Directive 2019/2162 and Regulation 2019/2160). It is expected that such changes will be completed within the scheduled timelines.

Issuers: There are five ACS Issuers with outstanding covered bonds – Bank of Ireland Mortgage Bank, DEPFA ACS BANK DAC, EAA Covered Bond Bank plc, AIB Mortgage Bank and EBS Mortgage Finance.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/28/Asset_Covered_Securities_-_ACS

COVERED BOND LABEL **:** AIB Mortgage Bank (1 pool), Bank of Ireland Mortgage Bank (1 pool).

1 For further information on the UCITS Directive and the Capital Requirements Regulation (CRR) please see: https://hypo.org/ecbc/covered-bonds/.

3.20 ITALY

By Marco Marino, Italian Banking Association

I. FRAMEWORK

The Italian Legislator enacted a new regulation (Law no. 80/2005) in May 2005, by means of which two specific articles (article 7-*bis* and article 7-*ter*) were inserted into the existing Italian securitisation law (Law no. 130/1999), providing for covered bonds.

The legislator decided to supplement Law no. 130/99 rather than adopt a separate and autonomous law/legal framework, in light of the markets' and international operators' positively assessing Italian securitisation law. They found that the law introduced an established and reliable legal framework (e.g. from a standpoint of "bankruptcy remoteness").

Pursuant to paragraph 5 of the first of the two articles mentioned above, on 14th December 2006, the Ministry of Economy and Finance issued secondary rules in relation to some key issues of the structure. In particular, implementing rules have been enacted with respect to the type of assets eligible for the cover pool, the maximum allowed ratio between transferred assets and issuable securities, the type of guarantee to be provided to bondholders by the SPV.

As for the last procedural step, which formally allows Italian banks to start issuing covered bonds, the Bank of Italy enacted its implementing measures on 17 May 2007, in relation to the requirements to be complied with by issuing banks, the criteria to be adopted to evaluate the cover assets and the relevant formalities to integrate such assets, as well as the formalities to check that the banks are complying with their obligations under the same article 7-bis, also through auditors.

Under decree law 18/2016 article 13-bis, converted in law in April – law 49/2016 – the Italian legislator has set the compliance for "Obbligazioni Bancarie Collateralizzate" (OBC). This new instrument is a collateralised bond comparable with the European Secured Notes (ESN) for his structure – double recourse instrument – and since the nature of the eligible assets in the cover pool, mainly: SME loans, corporate bonds, aircraft loans and ship loans.

II. STRUCTURE OF THE ISSUE OF COVERED BONDS

Pursuant to the abovementioned article 7-*bis*, the structure of a covered bond transaction is as follows:

1. Bank transfers' eligible assets to a special purpose vehicle (SPV), whose sole corporate purpose is the purchase of such assets and the granting of a guarantee for the issued securities over which bondholders have a senior claim;
2. The SPV purchases the transferred assets by means of a loan granted or guaranteed to it by a bank (not necessarily the same bank transferring the assets);
3. The bank transferring the assets (or another bank) issues covered bonds;
4. The assets purchased by the SPV are applied to satisfy the rights attaching to the covered bonds and the counterparties of derivative agreements entered into for hedging the risks related to the assets, and to pay the costs of the transaction.

According to the Bank of Italy's regulation, covered bonds can be issued by banks with the following prerequisites:

> Own funds not lower than EUR 250 million;

> A total capital ratio not lower than 9%.

It is also provided that these requisites must be fulfilled by the transferring banks as well (i.e. cover pool providers) if they are not the issuers.

There are no business restrictions to the issuer's activity, hence there is no special banking principle that needs to be enforced. Bondholders hold a preferential claim on the cover assets and the covered bonds are direct, unconditional obligations of the issuer.

In October of 2018, Bank of Italy's regulation has been amended, in order to allow banking institutions which are not complying with the above capital requirements, to issue covered bond.

In particular, according to the new provisions, the issuing bank that does not meet the above capital requirements may establish a covered bond programme upon notification to the Bank of Italy that gives evidence of several requirements, accompanied by a report from the compliance function. Bank of Italy could deny the authorisation of the covered bond programme.

The new rules anticipate the principles expressed in the proposal for a directive on covered bonds published on 12 March 2018.

III. COVER ASSETS

As provided for by paragraph 1 of Article 7-bis of the securitisation law, the eligible assets as coverage for covered bonds are:

a) Residential mortgage loans with a maximum LTV of 80% or commercial mortgage loans with a maximum LTV of 60%;

b) Claims owed by (or guaranteed by) the following entities, up to 10% of the cover pool:

> public entities of EEA member countries and Switzerland with a maximum risk-weight of 20%;

> public entities of non-EEA member countries with a risk weight of 0%;

> other entities of non-EEA member countries with a risk weight of 20%

c) Notes issued under a securitisation transaction backed (for a minimum of 95%) by the claims under the abovementioned letters a) and b), that qualify for the credit quality step 1 under the Standardised approach. In case the covered bonds are backed by notes issued under a securitisation transaction for more than 10% of the issuance nominal value, the following additional conditions must be fulfilled:

> the residential or commercial mortgage loans must have been originated within the banking group of the issuer;

> the issuer or an entity consolidated in the same banking group holds the risk underlying the entire junior tranche;

> the issuer and the SPV are able to verify, on an ongoing basis, the eligibility and the volumes of the securitised assets and to provide the asset monitor with all the relevant information it may require to perform its controls.

As regards the transferring of such eligible assets to the SPV, the Bank of Italy sets different limits according to the different regulatory capital levels of the issuer (see Figure 1).

> Figure 1

Regulatory capital level		Transfer limitations
Class A	Tier 1 ratio ≥ 9% and Core Equity Tier 1 ratio ≥ 8%	No limitations
Class B	Tier 1 ratio ≥ 8% and Core Equity Tier 1 ratio ≥ 7%	Eligible assets can be transferred up to 60% of total
Class C	Tier 1 ratio ≥ 7% and Core Equity Tier 1 ratio ≥ 6%	Eligible assets can be transferred up to 25% of total

As provided for by the secondary legislation enacted by the Italian Ministry of Economy, assets must have at least equal liabilities, both on the nominal and NPV bases, and the revenues arising from cover assets must be sufficient to pay coupons to bondholders and to cover the cost of derivative transactions.

The integration of cover assets can be performed through:

1. The transfer of additional eligible assets to the pool;
2. The opening of deposit accounts at banks located in an EEA member country, or in other countries with a 0% risk-weight;
3. The transfer of banks' own debt securities (with maturity of less than 1 year) to the pool.

It is also provided that integration through assets under points 2 and 3 is allowed only up to 15% of the cover pool's nominal value. With respect to such provisions, the Bank of Italy established that integration is allowed only to:

> Maintain the ratio of the issued bond to cover assets up to the abovementioned level provided for by the Ministry of Economy;

> In case of voluntary overcollateralisation, maintain the ratio of the issued bond to cover assets up to the contractually-agreed limit;

> Respect the abovementioned 15% limit for eligible supplementary assets.

IV. ASSET-LIABILITY MANAGEMENT

In order to allow the SPV to fulfil its obligations, issuing banks are required to adopt proper asset-liability management techniques and to perform specific controls at least every 6 months, to ensure that the proceeds from the cover pool assets are always sufficient to pay the coupons on the covered bonds, and the overall cost of the transaction.

V. COVER POOL MONITOR AND BANKING SUPERVISION

As far as regulatory supervision is concerned, the Bank of Italy sets and monitors, on an ongoing basis, the abovementioned specific eligibility requirements for issuing banks which are stricter than those provided for traditional banking activities. These parameters require, in particular, own funds of at least EUR 250 million and a consolidated total capital ratio of at least 9%. It is also provided that eligible assets may be assigned to the SPV only subject to a series of restrictions, graduated based on the total capital ratio and Tier 1 ratio at the consolidated level.

Although in some European countries the issuance of covered bond is subject to a "licence" granted by the Supervisory Authority upon the fulfilment of specific requirements, the Italian legislator has decided to make a different choice. Rather than introducing a "licence" system, it has defined a series of requirements and limitations to issuance which together can be de facto considered as the objective basis upon which to grant an issuance authorisation. Moreover, it must be considered that such requirements and limitations are in most cases stricter than those required by other regulatory frameworks.

Furthermore, Italian regulation prescribes that the monitoring of the regularity of the transaction and of the integrity of the collateral securing investors must also be performed by an external asset monitor (AM) appointed by the issuer. The AM must be an auditing firm possessing the professional skills required to perform such duties and must be independent from the bank engaging it (e.g. it cannot be the same firm appointed to audit the accounts of the issuing bank) and of any other person participating in the transaction. It has to report at least once a year to the Board of Directors and to the internal audit department of the bank.

Although no specific reporting to the Bank of Italy is prescribed by law, in practice the AM will report to the Supervisor any material anomaly found. It must also be considered that the AM's report is reviewed by the bank's auditor which reports regularly to the Bank of Italy. Should such report contain negative evaluations, the bank's auditor is obligated to bring the issue to the Bank of Italy's attention.

In general terms, specific control requirements on banks issuing covered bonds find their primary source from EU and national legislation. Additionally, in consideration of the peculiarities of a covered bond transaction, the Bank of Italy assigns to issuers the primary responsibility to evaluate the risk involved in the operations, to arrange a proper control mechanism and to ensure its functioning through the time. In particular, at least every six months and for each operation, issuers have to check: i) the quality of the cover pool; ii) compliance with the predetermined ratio between outstanding covered bonds and cover assets; iii) compliance with transfer limitations and asset integration requirements; iv) the performance of any derivative agreement entered into in order to hedge risks.

As far as information flows are concerned, it is provided that issuing/transferring banks shall acquire, from all the parties involved in the structuring of the covered bonds, information relating to:

> The possessory titles of the transferred assets (in order to be able to track down each borrower whose loan has been transferred to the SPV);

> The performance of the transferred assets (in order to monitor the "health" of the cover assets).

This information is necessary to issuing/transferring banks in order to perform both the abovementioned controls in terms of cover pool monitoring and the regulatory reporting (i.e. reporting of defaulted loans to the Bank of Italy's *Centrale dei Rischi*).

VI. TRANSPARENCY

In 2012, the main Italian covered bond (Obbligazioni Bancarie Garantite (OBG)) issuers, coordinated by the Italian Banking Association, worked together to create a transparency template, consistent with the guidelines of the ECBC Label Initiative. The OBG transparency template is available online on the Covered Bond Label website (https://www.coveredbondlabel.com) and each participating OBG issuer has published a completed version on its own website.

VII. ASSET SEGREGATION AND IMPACT OF INSOLVENCY PROCEEDINGS ON COVERED BONDS AND DERIVATIVES

As provided for by the secondary legislation enacted by the Italian Ministry of Economy, the guarantee granted by the SPV to the covered bondholders must be irrevocable, first-demand, unconditional and independent from the issuing bank's obligations on the covered bonds. It will be callable upon non-payment and bankruptcy of the issuing bank, and it will be limited to cover pool asset value to ensure bankruptcy remoteness of the SPV.

The SPV is a financial intermediary, registered in the "special list" provided for by article 106 of the Banking Law, and therefore subject to the Bank of Italy's supervision.

Covered bondholders will have the right, represented exclusively by the SPV, to file a claim with the issuing bank for full repayment of the covered bonds. In case of liquidation of the issuing bank, the SPV will be exclusively responsible to make payments to covered bondholders (as well as other counterparties) and will represent covered bondholders in proceedings against the issuing bank.

All the amounts obtained as a result of the liquidation procedure will become part of the cover pool and therefore used to satisfy the rights of covered bondholders. The redemption of the subordinated loan granted by the issuer of the covered bonds to the SPV is junior to any outstanding claims of covered bondholders, swap counterparties and transaction costs.

In case the proceeds obtained as a result of the liquidation procedure are insufficient to meet the obligations to bondholders in full, investors would still have an unsecured claim against the issuer for the shortfall.

VIII. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 (7) of the Capital Requirements Regulation (CRR), also considered that the Bank of Italy's OBG regulation establishes that the asset monitor must verify, among other things, that the information disclosed to investor as per Article 129 (7) of the CRR are complete, accurate and provided in a timely manner. Italian covered bonds fulfil both the criteria of Article 52(4) UCITS and Article 129(1) CRR.[1] They are also eligible in repo transactions with the Bank of Italy.

The "OBC" has been set to be compliant with european regulation.

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ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/31/Obbligazioni_Bancarie_Garantite_-_OBG

COVERED BOND LABEL: Banca Carige S.p.A. (1 pool), BANCO BPM (1 pool), Crédit Agricole Italia S.p.A. (1 pool), Intesa Sanpaolo S.p.A. (3 pools), Banca Popolare dell'Alto Adige (SUDTIROLER VOLKSBANK) (1 pool), UniCredit S.p.A. (2 pools).

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.21 JAPAN

By Atsushi Ouchiyama, SMBC, Elena Bortolotti, Barclays & Chairwoman of the ECBC Rating Agency Approaches Working Group and Eldar Mezbur, Goldman Sachs

I. FRAMEWORK

On 6 November 2018, Sumitomo Mitsui Banking Corporation ("SMBC") issued the first ever Japanese covered bond. As of today, Japan does not have a covered bond legal framework hence SMBC relied on Japanese and English contractual law provisions to structure their covered bond programme following the footsteps of the UK, Canada and New Zealand, jurisdictions that issued contractual law covered bonds before a legal framework was introduced and legislative covered bonds were issued.

The Japanese banking industry had tried to establish a covered bond legislation in Japan in the early 2010's but there was no material progress at that time mainly due to two reasons: (1) demand for covered bonds from issuers was not strong because of ample liquidity in the Japanese Yen market, and (2) achieving dual recourse under the Japanese legal framework was difficult.

Since then Japanese banks have become active in foreign markets and have increased their foreign assets significantly. Accordingly, stability of foreign currency funding has become one of the key business challenges surrounding Japanese banks. Furthermore, a viable structure has been identified which achieves dual recourse under the existing Japanese legal framework (see VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS).

On 28 September 2018, the major Japanese banks jointly submitted an initial request to their regulator to establish a covered bond legislation in Japan, the document was called *"Establishment of Japanese covered bond legislation in order to strengthen stability of foreign currency funding of Japanese banks"*. The Japanese banks would like to encourage the authorities to introduce a covered bond legislation in Japan. Currently, the Japanese Financial Services Authority ("FSA") is looking very closely at optimal covered bond structures and how best to implement a covered bond framework.

Given the lack of a Japanese Covered Bond Legal framework and the presence to date of only SMBC's covered bond programme, the analysis of the following sections is based on SMBC's EUR 20bn Covered Bond Programme.

II. STRUCTURE OF THE ISSUER

In the absence of a covered bond legal framework in Japan, SMBC's covered bond programme has been established in a way to replicate as closely as possible legislative covered bonds. The Issuer is SMBC acting as the trustee on behalf of a money trust (the "Trust Account"), which is established specifically for the issuance of Covered Bonds and with the scope of holding the cover pool assets. The cover pool assets consist of senior tranches of SMBC self-originated residential mortgage backed securities (RMBS). SMBC acting in its proprietary capacity will be the TRS Counterparty, the Initial Servicer as well as the Initial FX Counterparty (Figure 1).

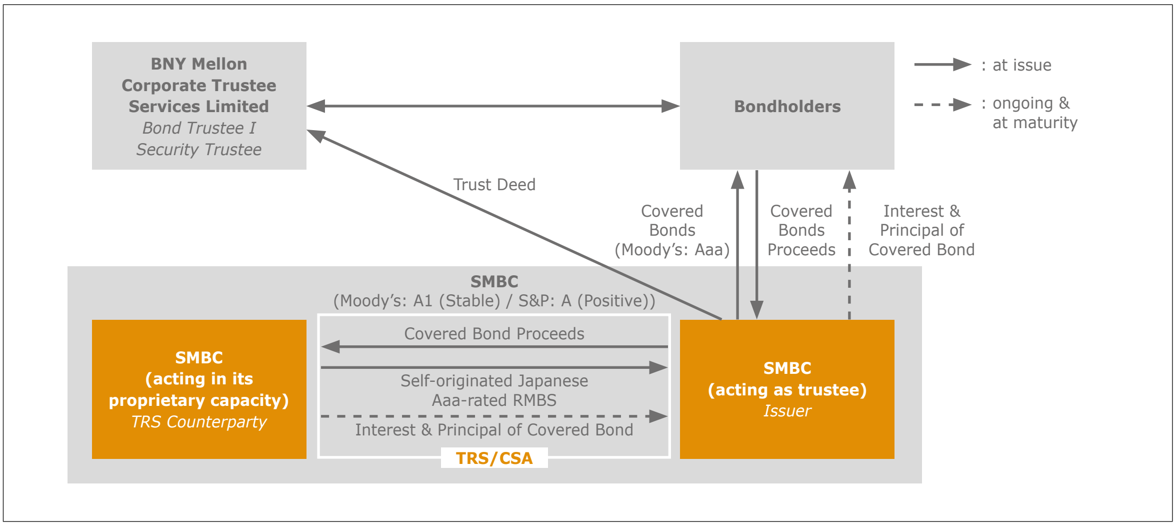
In case of SMBC Proprietary Account's bankruptcy, pursuant to the Japanese Trust Act, the Trust Account is segregated from SMBC Proprietary Account's general assets or from any other assets of the Trust within SMBC. The Trust Account bears some similarities to how cover pool assets are ring-fenced on balance sheet in traditional covered bonds, as its assets do not form part of the assets available to SMBC Proprietary Account's general creditors.

The cover pool assets are transferred from SMBC Proprietary Account to the Issuer, through the use of a total return swap ("TRS"). The Trust Account pays the cash flows generated by the cover pool assets to SMBC Proprietary Account, and SMBC Proprietary Account pays to the Trust Account the covered bonds interest and principal amounts, which are then passed to the covered bondholders.

In case of SMBC Proprietary Account's bankruptcy, all claims and obligations between the Trust Account and the TRS Counterparty under the TRS are terminated using the close-out netting principle by applying the Japanese Netting Act. Close-out netting reduces the risk that the transfer of cover pool assets is recharacterised as a collateral transaction, and assures the segregation and bankruptcy remoteness of the assets held in the Trust Account.

Dual recourse is achieved by allowing covered bondholders to have recourse to SMBC Proprietary Account's assets available to general creditors, in addition to exclusive recourse to the assets held in the Trust Account.

FIGURE 1:



Sources: SMBC Covered Bond Programme, Base Prospectus

III. COVER ASSETS

Pursuant to SMBC's Base Prospectus, eligible cover pool assets are senior RMBS tranches (Aaa-rated or Aa-rated with a 20% haircut) backed by residential loans originated by SMBC. Japanese Government Bonds are eligible as substitution assets but with a self-imposed cap of up to 10% of the cover pool. Cash can also be used as CSA collateral.

SMBC was not able to transfer residential loans directly to the Trust Account, as they needed to rely on the close-out netting principle to apply the Netting Act under the TRS to guarantee segregation and bankruptcy remoteness of the Trust Account. One of the benefits of using RMBS as cover pool assets is the ability to conduct daily mark-to-market valuations of the cover pool. It is worth highlighting that if necessary, the selling agent has the option to sell the RMBS or to unwind the relevant RMBS to sell the underlying residential loans to find the highest bidder for such assets.

The TRS Default Event (i.e. SMBC Proprietary Account's Bankruptcy) triggers the liquidation of the cover pool assets and the start of the Realisation Period. All series of covered bonds will be simultaneously redeemed on the Realisation Redemption Date or upon an Issuer Event of Default regardless of their scheduled maturities.

IV. VALUATION AND LTV CRITERIA

Pursuant to the Base Prospectus, the RMBS are subject to haircuts depending on their rating: a further haircut is applied on the value attributed to the cover assets to the extent that the property value underlying the portfolio of RMBS does not meet an 80% LTV test (adjustment by the Adjusted LTV Limit Factor).

The Adjusted LTV Limit Factor is the factor which limits the LTV of the underlying assets in the portfolio of RMBS to a maximum of 80%. As a result, the value of RMBS to be taken into account for the Asset Coverage Test ("ACT") calculation is also limited accordingly.

V. ASSET - LIABILITY MANAGEMENT

SMBC's covered bond programme features an ACT, an Interest & Expenses Reserve and appropriate FX mitigants.

Asset Coverage Test: the Issuer is required to hold issuer assets in respect of all covered bonds sufficient to meet the ACT which is calculated on a daily basis. In the event that the aggregate market related value of the issuer assets excluding cash in any reserve fund has fallen below the minimum OC percentage of 25%, the TRS counterparty shall, pursuant to the terms of the CSA, be required to post an amount of CSA collateral with a value at least equal to such shortfall amount. Calculations for the ACT are checked on a quarterly basis by the Asset Monitor. A breach of the ACT will trigger a TRS Default Event.

Interest & Expenses Reserve: this reserve will be replenished upon SMBC's downgrade below A3. The reserve will cover 9 months of interest on all covered bonds outstanding and senior expenses.

FX Mitigants: any FX risk is managed through the ACT and daily TRS collateral posting until a TRS Default Event. Following a TRS Default Event any FX risk on principal (and unpaid interest or accrued interest, if any) will be hedged through a Contingent FX Forward transaction with an eligible third-party up to the Realisation Period End Date.

VI. TRANSPARENCY

The Issuer has committed to publishing a quarterly investor report which is available on SMBC's website. The report includes selected information on the underlying cover pool as well as confirming compliance with the ACT. Please find below a list of cover pool characteristics which are disclosed in the SMBC investor report:

- Property type information
- Number of mortgage loans comprising RMBS
- Concentration risks (10 largest exposures vs Residential loans)
- Breakdown by domestic regions
- Breakdown by interest rate
- Breakdown by repayment type
- Loan seasoning
- Non-Performing Loans (NPLs)
- Loan size information
- Unindexed LTV information
- Indexed LTV information based on the quarterly publication of monthly property price indices published by the Ministry of Land, Infrastructure, Transport and Tourism.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

An independent third-party accounting firm has been selected to act as Asset Monitor. The Asset Monitor will check and report to the transaction parties, on a quarterly basis, on the compliance or non-compliance of the ACT and the maintenance of sufficient funds in the Reserve Fund.

SMBC is a regulated banking entity in Japan supervised by the Japanese FSA.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Following an SMBC Proprietary Account bankruptcy, the assets held by SMBC's Trust Account are not subject to recourse by (1) SMBC Proprietary Account's general creditors and (2) creditors of other trusts of SMBC, and do not form part of the bankruptcy estate of SMBC Proprietary Account or other trusts under the Japanese Trust Act. The use of the Japanese Trust Act and the Netting Act (as described above) allows the structure to achieve cover pool asset segregation and bankruptcy remoteness of the cover pool.

Following a TRS Default Event (defined as failure to pay under the TRS, credit support default including breach of the ACT, bankruptcy of SMBC, SMBC's merger without assumption) a TRS Default Event notice will be served and the Realisation Period will begin. All outstanding covered bonds regardless of their scheduled maturity will have to be repaid shortly after the Realisation Period End Date. During the Realisation Period, interest on the covered bonds will continue to be paid by drawing on the interest & expense reserve. Furthermore, the Selling Agent will take necessary steps to sell the cover pool; all proceeds from the sale will be used to repay the covered bond holders. Should the proceeds from the sale of the cover pool not be sufficient to repay the covered bond holders in full, the covered bond holders will have recourse to SMBC Proprietary Account general bankruptcy estate.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

SMBC's covered bonds are neither Article 52(4) UCITS compliant nor Art 129 CRR compliant since Japan is not a Member State of the European Union (EU). Furthermore, the covered bonds do not benefit from preferential risk-weighting for regulatory capital purpose under EU rules due to the lack of a Japanese covered bond legal framework.

X. ADDITIONAL INFORMATION

Index Eligibility

SMBC's covered bonds are eligible as "covered bonds" for the purposes of the Bloomberg Barclays Covered Bond Index and Markit iBoxx Index.

Issuer: Sumitomo Mitsui Banking Corporation (SMBC).

3.22 LATVIA

By Kaspars Gibeiko
Updated by: Santa Rubīna, Inese Heinacka, Sorainen, Richard Kemmish, consultant and Jacek Kubas, EBRD

I. FRAMEWORK

In Latvia, the current legal basis for covered bond issuance is the Law on Mortgage Bonds (HKZL – Hipotekāro ķīlu zīmju likums) from 10 September 1998 and subsequent amendments to the HKZL. The insolvency and bankruptcy procedure are captured both by the HKZL (Section 6) and the Law on Credit Institutions (Articles 56.[1], 139[1] and 161). The analysis of the following sections II-V below is based on currently valid HKZL and other regulations currently in force.

HKZL has several shortcomings. First, it provides legal framework for issuing bonds based only on mortgage loans or loans secured by government guarantees (please see below section III). Thus, HKZL is relatively narrow in scope, considering the broader scope of assets, which could be used to back covered bonds according to Article 129 of the Capital Requirements Regulation (CRR). Second, in practice only a few covered bond issues have taken place in Latvia. Finally, taking into account the covered bond directive and amendments to the CRR, HKZL is outdated.

Due to these reasons, and also with the purpose of creating a Pan-Baltic (common Latvian-Lithuanian-Estonian) covered bond market, the Latvian Ministry of Finance, with the technical assistance from the European Bank for Reconstruction and Development (EBRD) and with the support of European Commission, has commenced a legal reform establishing a new, improved covered bond regulation (New Law). The New Law will transpose the Covered Bond Directive and will be aligned with amended CRR. The New Law will implement the so called "SPV model" and will follow the best market practice. Given that this is essential for all three Baltic States to create a uniform market, i.e., ensure compatibility of their local legislations, then the main elements were aligned during the drafting process amongst all 3 jurisdictions. This includes, but is not limited to:

> the asset transfer and the principle of true sale;
> necessity to obtain the consents for transfer and notification requirements;
> ringfencing of cover assets, as well as qualitative and quantitative criteria for assets forming cover pool (including, types of primary and substitute assets, treatment of areas, creation of mixed asset cover pools, LTV ratio and overcollateralisation);
> authorization requirements;
> information disclosure requirements and reporting;
> stress testing;
> requirements towards cover pool monitor;
> use of derivatives;
> use of maturity extension structures;
> liquidity rules;
> the principle of dual recourse and treatment of cover assets in case of insolvency of the issuers, as well as rights and obligations of the special administrator.

One of the fierce topics for the debate is ensuring simplified and low cost security interest reregistration process. Due to peculiarities of national regimes it has been difficult to reach a consensus on uniform approach, but all

1 Please note that due to no legislative changes at national level, this article on substance is the same as the one published last year. We have added information on the contemplated legislative changes and reasoning for it.

three countries have acknowledged the necessity for introduction of simplified and low cost process for security interest reregistration. Special attention was also given to cross-border transfers to allow synergies between the three countries. Bearing in mind that the New Law is still in legislative process, it cannot be excluded that some of recommended solutions might be modified or replaced. At the same time the authors of this article firmly believe that it will be possible to achieve the synergy amongst the legislations of all three Baltic States as both the involved governments and stakeholders understand that it is critical for Baltic cover bond success.

II. STRUCTURE OF THE ISSUER

There is no specialised banking principle in Latvia. As a result, every registered bank can issue mortgage-backed covered bonds. The minimum requirements a bank must fulfil in order to issue mortgage bonds are as follows:

> Tier1 and Tier2 capital should be not less than stated in the Law on Credit Institutions;

> Provision of the banking services specified in Article 1, Clause 4 of the Law on Credit Institutions without any restrictions imposed by the Financial and Capital Market Commission (FCMC);

> Submission of rules approved by the bank's supervisory board regarding the valuation of the real estate to be mortgaged and the management of the mortgage bond cover register to the FCMC.

The issuer holds the cover assets on his balance sheet and the cover assets are not transferred to a different legal entity. All obligations from mortgage bonds are obligations of the issuing bank, as a whole, to be paid from all the cover assets of the issuer. In the case of insolvency, the cover pool is segregated by law from the general insolvency estate and is reserved for the claims of the mortgage bond holders.

The HKZL does not prescribe the issuing bank to have separate employees to manage the cover pool, but it prescribes that the cover assets are managed separately from other assets of the issuer. Therefore, if employees of the bank are involved both in the management of the cover assets and the management of non-cover assets, separation of the duties and responsibilities should be clearly stipulated in the bank's by laws and internal procedures. There are also no specific requirements regarding the outsourcing of the management of cover assets in the Latvian Covered Bond Legislation.

III. COVER ASSETS

Cover assets can be eligible mortgage loans or loans secured by either guarantees of the Latvian Government or guarantees of the local governments.

Up to 20% of the nominal volume of outstanding mortgage bonds and interest expenses (substitute cover) may consist of:

> cash;

> balances with the central banks of the EU member states; and

> securities issued and guaranteed by the EU member state governments up to 95% of their market value whilst not exceeding the face value of these securities or securities issued by the EU member state's financial institution and traded on the EU regulated securities market up to 95% of their market value whilst not exceeding the face value of these securities.

The eligible mortgage assets are restricted in geographical scope to the extent that a property that secures a mortgage loan should be registered with the EU member state's property register. This means that only properties which are registered in the EU member state can be used as collateral for mortgage loans included in the cover pool. The loans secured by Latvian sovereign and sub-sovereign guarantees are not restricted by geographical scope, but they are restricted by loan purpose; loans which finance public and infrastructure projects are eligible.

Derivatives are eligible for cover pool inclusion for the purpose of mitigating currency – and interest rate risk. The volume of derivatives is not limited, and the general documentation used is the standard for derivatives.

IV. VALUATION AND LTV CRITERIA

Property valuation is regulated in Article 15 of the HKZL. Property valuation is carried out according to the international valuation standards. The basis for property valuation is market value. Professionals responsible for the determination of the market value of a property must be in possession of a relevant professional qualification. In addition to that, Article 15.[1] stipulates that the market value of property registered in the EU Member State is determined by the persons who have received professional, real estate valuation, licence according to the legislation of particular EU member state.

The issuer is responsible for the monitoring of the property value. The frequency of monitoring is not defined by the HKZL, but as in practice no mortgage bonds are issued, then there are currently no effective regulations of the FCMC addressing the reporting.

Article 14 of the HKZL stipulates that a mortgage loan together with debts previously registered with the national property register may not exceed 75% of the market value of residential property and 60% of the market value of other type of property.

V. ASSET – LIABILITY MANAGEMENT

Article 9 of the HKZL stipulates the following requirements to the asset-liability management of the cover pool:

> The total volume of the cover assets must be larger than the total volume of outstanding mortgage bonds at their face value by at least 10% of the risk weighted value of the cover assets, where risk weighted value of the cover assets is calculated based on specific weights of each type of the cover assets;

> The currency of the cover assets and that of the outstanding mortgage bonds may differ only if the issuer has taken all the necessary measures to prevent the currency risk in the cover pool;

> The total interest income from the cover assets must exceed the total interest expenses on outstanding mortgage bonds;

> The cash-flows from the outstanding mortgage bonds (in accordance with the mortgage prospectus) must always be covered by the cash-flows from the cover assets in terms of volumes and maturities.

> The issuer of the covered bonds has to prepare a report on the cash-flow mismatches and submit it to the FCMC on a semi-annual basis.

The latest amendment to the HKZL stipulates that the issuer should separate loans secured by a mortgage and loans secured by central or municipal governments. This requirement was introduced in order to separate mortgage bonds and public sector bon.

VI. TRANSPARENCY

The National Transparency Template, as understood under the guidelines of the ECBC's Covered Bond Label Initiative, has not been established by the HKZL. We anticipate that the New Law will require a high standard of disclosure in line with the Covered Bond Label.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Latvian covered bond legislation does not require the appointment of a special entity to monitor the cover pool. Instead, the cover pool is managed by the issuing bank and it is the issuing bank's responsibility to set up a system to ensure that the cover pool is managed properly.

The FCMC supervises cover pools. It inspects cover pool (quality and eligibility of the cover assets, quality of the asset-liability management) during regular banking supervisory audits which are carried out on average every two years.

1 Please note that due to no legislative changes at national level, this article on substance is the same as the one published last year. We have added information on the contemplated legislative changes and reasoning for it.

The FCMC has the right to suspend the issue of mortgage bonds under the following circumstances:

> The issuing bank does not comply with the conditions laid down in the Law on Mortgage Bonds;

> The issuer does not ensure that the redemption and interest payments on outstanding mortgage bonds are always covered by the principal and interest payments of the cover assets of a higher value;

> By-laws on the valuation of properties securing the mortgage assets and by-laws on the management of cover pool submitted to the FCMC are not followed.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

A cover register facilitates the identification of the cover assets, because all the cover assets, including substitute cover as well as derivatives, are recorded in the cover register. The type and scope of the information recorded regarding the cover assets in the cover register are determined by FCMC regulations.

The legal effect of registration is the fact that in the case of insolvency of the issuer, the assets which form part of the separate legal estate can be identified and all assets recorded in the cover register qualify as part of this separate legal estate.

Asset segregation

A cover pool is a part of the general estate of the issuing bank as long as the issuer is solvent. If the insolvency proceedings are opened, by operation of law, the assets recorded in the cover register are excluded from the insolvency estate of the issuer. Those assets will not be affected by the opening of the insolvency proceedings. After the opening of the insolvency proceedings of the issuer, a special cover pool manager is appointed by the court to manage the cover assets. If the assets are not sufficient, then insolvency process of cover pool is commenced and administrator is appointed by court to carry out the insolvency proceedings of the cover pool.

After the opening of the insolvency proceedings, a special cover pool administrator initiated by the FCMC and appointed by court carries out the administration of the cover assets.

Impact of insolvency proceedings on covered bonds and derivatives

Covered bonds do not automatically accelerate when the issuing institution becomes insolvent, but will be repaid at the time of their contractual maturity. The same applies to derivatives which are registered in the cover register and form part of the cover pool.

Preferential treatment of covered bond holders

Covered bond holders enjoy a preferential treatment as the HKZL and the Law on Credit Institutions stipulates the segregation of the cover assets in a case of the insolvency of the issuing bank. According to Article 139 of the Law on Credit Institutions, mortgage bond holders have the first access rights to the cash flows generated by the assets recorded in the cover register.

In the case of insolvency of the issuer, it is forbidden to modify the content of the cover register and all cash flows from the cover assets must be accrued within it. According to reasonable interpretation of the law as long as there is sufficient cover, a moratorium on the insolvency’s estate cannot delay the cash flows from the cover assets and, therefore, endanger the timely payment of Covered bond holders.

Only in the case of over-indebtedness or insolvency of the cover assets shall the FCMC file an application to court regarding the insolvency of the cover pool (Article 26 of the HKZL). Insolvency of the cover pool is the only catalyst which could the trigger acceleration of covered bond.

Access to liquidity in case of insolvency

With the appointment of the cover pool manager, the right to manage the cover assets is transferred to him by law. Thus, the cover pool manager has first access to the cover assets and collects the cash flows according to their contractual maturity.

The cash-flows from the cover assets may only be used for the following purposes and the use of assets in any other manner is inadmissible:

> Disbursements to mortgage bond holders if the term for interest payments or mortgage bond redemption has become due;

> Purchase of mortgage bonds issued by the issuer itself with their subsequent redemption in the public securities market at a price not exceeding the face value of the mortgage bonds if the remaining cover assets are sufficient to cover outstanding mortgage bonds;

> Payments under derivatives' agreements concluded on the cover asset risk mitigation, provided that the contracting parties have met the conditions of such agreements.

The cover pool manager is permitted, in case of the insolvency of the issuer, to exceed the substitute cover limit.

No specific regulation exists with respect to the insolvency remoteness of voluntary overcollateralisation.

The cover pool manager may carry out legal transactions in respect of the cover pools in so far as this is necessary for an orderly settlement of the cover pool and for the full and timely satisfaction of the cover pool's creditors.

Sale and transfer of mortgage assets to other issuers

The HKZL and the Law on Credit Institutions provide that the cover assets in a case of insolvency of issuer are transferred to another bank chosen by the FCMC. The bank to which the cover assets are transferred, also takes responsibility for all the obligations arising from outstanding mortgage bonds.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation, when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the CRR. Latvian mortgage bonds comply with the requirements of Article 52(4) UCITS Directive as well as with those of Article 129 CRR.[2] The current risk-weight applied to mortgage bonds in Latvia is 20%.

Latvian investment legislation allows mutual funds to invest up to 25% of their assets in mortgage bonds and pension funds – up to 10% of their assets.

2 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.23 LITHUANIA

By Tomas Kontautas and Dalia Augaitė, law firm Sorainen

I. FRAMEWORK

The Lithuanian Ministry of Finance, with the technical assistance of the European Bank for Reconstruction and Development (EBRD) and with the support of the European Commission, has initiated a legal reform to establish new securitisation and improved covered bond regulation. As a result, the Introduction of a Covered Bond and Securitisation Legal and Regulatory Framework in Lithuania was published in 2017, followed by the drafting of the Law on Securitisation and Covered Bonds (the Draft Law) presented for public discussion on 18 July 2018.

In addition, in November 2017, the Ministries of Finance of Lithuania, Latvia, and Estonia signed a Memorandum of Understanding with a view to creating a pan-Baltic covered bond framework to enable the local banks to combine the assets from one, two or all three Baltic States under one issue (programme). It would be the first time in the covered bond market that laws of different jurisdictions are aligned and a regional covered bond could be issued with underlying assets from three countries. Therefore, the Lithuanian law governing the pan-Baltic covered bond regime is expected to be in place in 2020.

II. STRUCTURE OF THE ISSUER

Covered bonds can be issued by an authorised credit institution. However, the credit institution has to obtain an additional authorisation from the Bank of Lithuania which is the Lithuanian financial supervisory authority (the Lithuanian FSA). A prospective issuer applying for the authorisation has to prove that it will comply with the requirements imposed upon the issuers by this law. For example, a prospective issuer is required to have technology and systems, control mechanisms and a risk management system necessary for the administration of the cover pool. Moreover, it has to have a contingency plan.

Lithuania has chosen and adopted the SPV model for covered bonds. As a result, the assets included in the cover pool are transferred to an SPV under the true sale principle and the investors are granted the *dual recourse* right. Therefore, the credit institution, as the issuer, has a direct responsibility for redemption, but the cover pool is *ring-fenced* in the SPV and the issuer's creditors do not have any claim rights against it.

The day-to-day supervision of covered bond programmes shall be undertaken by a cover pool monitor. Specifically, the cover pool monitor will inspect the compliance of the issuer with the requirements of the Draft Law, in particular whether the asset pool is, during the whole period of validity of the regulated covered bond, capable of covering claims attaching to the bond and sums required for the maintenance, administration and winding up of the asset pool (operational expenses) and for the transfer of the asset pool to a third-party servicer; whether the cover pool is of sufficient quality to give investors the confidence that in the event of the failure of the issuer there will be a low risk of default in the timely payment by the covered bond entity of claims attaching to the bond; whether the eligible property in the cover pool of a single asset class bond consists only of eligible property of the same class as the eligible property included in the asset pool of the regulated covered bond when registered and/or liquid assets and/or derivatives, etc.

III. COVER POOL

Cover assets shall mean an "asset pool" comprised of the following:

(1) primary cover assets:

  a. public sector assets indicated in Article 129(1)(a) and (b) of the Capital Requirements Regulation (CRR), except for exposures that are eligible for credit quality category 2 as referred to in part (b) thereof;

  b. residential mortgage assets – loans covered by non-commercial real estate as provided for in Article 129(1)(d)(i),(e) of the CRR;

    c. commercial mortgage assets – loans covered by commercial real estate as provided for in Article 129(1)(f)(i) of the CRR;
    d. loans covered by liens on ships as provided for in Article 129(1)(g) of the CRR;
    e. other high-quality assets classified as eligible assets by the Lithuanian FSA in accordance with Article 129 of the CRR.

(2) cash from the assets that are part of the asset pool;

(3) eligible derivatives (for hedging purposes only);

(4) liquid debt securities issued by an EEA country, regional government or local authority of an EEA country.

Nevertheless, only the performing credits may be included in the cover pool as primary cover assets. The statutory overcollateralisation level should be no less than 5% of the total principal amounts outstanding in relation to the bonds which the asset pool relates to.

It should be emphasised that if the issuer would like to label the covered bond issue as a *mortgage covered bond*, the primary cover asset must consist of residential mortgage assets only, i.e. the issuer's claims that arise from credits granted to natural persons against a mortgage of residential property situated in the territory of a European Economic Area (hereinafter EAA) country.

IV. VALUATION AND LTV CRITERIA

The Draft Law provides that the LTV criteria for the property given as collateral for the credits linked to the real estate assets of the issuer must abide by the following maximum percentages: residential mortgages – 70% of the value of property valuation and commercial mortgages – 60% of the value of property valuation.

Market value indexation should be performed at least once a year, i.e. the loan-to-asset value ratio should be adjusted on an annual basis, unless higher indexation is provided in the covered bond programme or more frequent indexation is required by the cover pool monitor or the Lithuanian FSA.

The Draft Law entitles the Lithuanian FSA to elaborate on the criteria for assessing the eligibility of loans to be included in the cover pool and for the valuation of the underlying assets.

V. ASSET AND LIABILITY MANAGEMENT

The issuer has an obligation to perform a stress test on the covered bond portfolio and assess the impact of the main risk factors to which the asset portfolio is exposed in relation to the sufficiency requirement. The stress test should cover at least the interest rate, currency, credit, liquidity, set-off, commingling risks and other risks as indicated by the Lithuanian FSA. When carrying out the stress tests, the relevant risk-mitigating factors such as derivative contracts and other agreements entered into for the purpose of risk mitigation must be taken into account. Stress testing must be done at least once a quarter.

Such stress tests must be carried out by the issuer according to its own approved methodology based on consistent, documented and verifiable criteria, assumptions and procedures. The managers of the issuer are responsible for ensuring the performance of stress tests. The Draft Law grants the Lithuanian FSA the right to establish more detailed requirements for the procedure and methodology of stress testing of covered bond portfolios. Regarding the liquidity requirement, the cover pool must contain liquid assets in an amount equivalent to the issuer's related commitments secured by the cover pool and falling due in the next 180 days.

VI. TRANSPARENCY

In addition to the disclosure obligation arising from other legislation, an issuer must disclose information about covered bond portfolios on a quarterly basis. The following information is required to be disclosed to the holders of regulated covered bonds:

(1) information on the credit, market, currency, interest and liquidity risks associated with the cover assets and the covered bonds;

(2) the total nominal value of the outstanding covered bonds;

(3) the total value and composition of the cover assets and the geographical distribution of the cover assets;

(4) the ratio between the total value of the cover assets and the total nominal value of the outstanding covered bonds, overcollateralisation, including voluntary overcollateralisation;

(5) information about a liquidity buffer;

(6) information on the structure of the covered bonds, including the maturity profile of both the cover assets and the outstanding covered bonds;

(7) the methodology used to calculate LTVs for mortgage assets;

(8) the percentage of the cover assets with payments past due by more than ninety days;

(9) information on the counterparties and the SPV;

(10) other relevant information for the investor, as established by the Lithuanian FSA.

The information stated in the first paragraph is to be provided in sufficient detail to enable the regulated covered bond holders to carry out an adequate risk analysis.

The Lithuanian FSA may establish more specific disclosure requirements, including approval of their standardised formats.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The cover assets owned by the SPV must be supervised by a cover pool monitor. The issuer of the covered bond appoints and dismisses the cover pool monitor. The cover pool monitor may not be a person who was an external auditor of the issuer within the previous three years.

The cover pool monitor must perform the following functions:

(1) inspect the compliance of the asset pool with the requirements set out in the Draft Law (for example, the existence of a sufficient cover pool and its compliance with the requirements, as well as the accuracy of the records kept in relation to each asset in the asset pool);

(2) inspect the compliance of the issuer with the requirements related to derivatives, stress testing, liquidity buffers and transparency;

(3) prepare a report in accordance with the guidance issued by the Lithuanian FSA on the quality of the assets in the cover pool;

(4) perform other instructions of the Lithuanian FSA.

The cover pool monitor must submit the report to the SPV, the issuer, and the Lithuanian FSA. In addition, the cover pool monitor must immediately inform the management of the SPV, the issuer, the Lithuanian FSA and, as the case may be, the representative of the investors about any irregularities and inaccuracies discovered during the performance of the cover pool monitor’s duties.

VIII. SEGREGATION OF THE COVER POOL AND BANKRUPTCY REMOTENESS OF COVERED BONDS

As pointed out above, Lithuania has chosen and adopted the SPV model for covered bonds. As a result, the assets included in the cover pool are transferred to an SPV under the *true sale* principle and the cover pool is *ring fenced* in the SPV, and therefore the issuer’s creditors do not have any claim rights against the cover pool. Moreover, the Draft Law imposes the obligation to ensure that the SPV is independent from the issuer and is not consolidated with the issuer upon its insolvency.

In the event that the issuer is declared insolvent, the cover pool will be considered to be separated from the other assets of the issuer under the Draft Law and will not be part of the issuer's insolvency estate. Upon the issuer's insolvency, the Lithuanian FSA must appoint a special administrator to take over the management of the cover pool and covered bond programme. The special administrator must manage covered bond portfolios with the necessary diligence and in a manner ensuring that the liabilities arising from the covered bonds and from the derivative instruments are met in the best possible way.

Covered bond holders enjoy preferential treatment as the Draft Law stipulates the *ring fencing* of the cover assets in the case of the issuer's insolvency. Bond holders have the first access rights to the cash flows generated by the assets included in the cover pool, and it is forbidden to challenge the asset transfer to the cover pool.

IX. COMPLIANCE WITH EUROPEAN LEGISLATION

The Draft Law is in compliance with the following European legislation that sets out requirements regarding covered bonds:

(1) Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS);

(2) Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012;

(3) Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council Text with EEA relevance.

3.24 LUXEMBOURG

By Matthias Melms, formerly Nord/LB and Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group

I. FRAMEWORK

The issuance of Lettres de Gage is regulated by Articles 12-1 to 12-12 of the Financial Sector Act of 5 April 1993 (the Financial Sector Act). These articles were introduced by the Act of 21 November 1997 for banks issuing mortgage bonds and amended by the Act of 22 June 2000, by the Act of 24 October 2008, by the Act of 27 June 2013 and by the Act of 21 June 2018. The Lettres de Gage regulations are supplemented by the *Commission de Surveillance du Secteur Financier* (CSSF) Circular 01/42 which lays down the rules for the appraisal of real estate and Circulars 18/705-707. The CSSF is the supervisory authority in Luxembourg.

The amendments introduced in June 2013 included: (i) a broadening of the geographical scope to assets acquired globally but with certain rating requirements for countries outside the European Union (EU), the European Eco-nomic Area (EEA) and the Organisation for Economic Co-operation and Development (OECD); (ii) the introduction of Lettres de Gage Mutuelles which are backed by a system of institutional guarantee; (iii) change of the rating requirements of eligible securitisations which now refer to the list of rating agencies established by the European Securities and Markets Authority (ESMA) rather than S&P, Moody's and Fitch; (iv) an explicit definition of public enterprise; (v) a clarification that the cover assets have to be the property of the bank and (vi) a legal obligation for the issuers to publish information on the cover pools, the Lettres de Gage and the issuers.

The bankruptcy regulations have also been completely revised. If the court declares open one of the procedures provided for in the law on the financial sector, i.e. suspension of payments or compulsory liquidation, this decision entails the separation of the bank into the cover pools and additional activities. The cover pools with their corresponding bonds and their corresponding reserve with the central bank continue as proprietary compartments of a mortgage bank with limited activity. This bank still holds a banking licence. The court can also open a procedure of suspension of payments or compulsory liquidation for a cover pool, but this does not affect the other cover pools.

The CSSF is no longer administrator of cover pools in the case of bankruptcy of the Lettres de Gage bank but one or several administrators nominated by the court.

In June 2018, Luxembourg amended its covered bond law, introducing Lettres de Gage Énergies Renouvelables as a fifth covered bond type in Luxembourg. Under the new law it is possible to use projects generating renewable energy as collateral for cover pools. To our understanding the Lettre de Gage Énergies Renouvelables is the first covered bond framework that makes use of these type of assets as collateral for covered bonds. Furthermore, a 180-liquidity buffer was introduced to minimize the liquidity risk that could arise in a covered bond programme - using highly liquid assets that are available at any time during a specified period of time.

In December 2018, the Commission de Surveillance du Secteur Financier (CSSF) published 3 Circulars supplementing the Financial Sector Act. Circular 18/705 lays down the rules for the appraisal of renewable energy assets, Circular 18/706 lays down the transparency requirements based on Article 12-6(2) and Circular 18/707 defines the minimum requirements for the maintenance and control of the cover register and the liquidity requirements for the cover pool.

II. STRUCTURE OF THE ISSUER

The Lettres de Gage issuers have to be credit institutions with a specialist bank license. Their business activities are restricted. In the past, the bank's principal activities were limited to mortgage lending, and public sector financing, which were primarily funded by issuing Lettres de Gage Hypothécaires and Lettres de Gage Publiques. Lettres de Gage Mobilières were introduced in October 2008 and are backed by loans guaranteed by movable assets. Since 2013, the Luxembourg issuers are also allowed to issue Lettres de Gage backed by institutional guarantees (Lettres de Gage Mutuelles). These bonds are collateralised by loans to credit institutions in the EU, the EEA and the OECD or loans that are guaranteed by them as cover pool collateral, assuming that these credit institutions belong to a system of institutional guarantee. This system has to be recognised by a supervisory authority and guarantee to support its members in the case of economic difficulties. The latest addition are the Lettres de Gage Énergies Renouvelables focusing on renewable energy. Since June 2018, 'renewable energy' assets also qualify as cover pool collateral.

The issuers may only engage in other banking and financial activities if these activities are accessory and auxiliary to their main business.

The issuer holds the cover assets on its balance sheet in separate registers. Each class of Lettres de Gage has its own register: one each for assets which are allocated to Lettres de Gage Hypothécaires, Lettres de Gage Publiques, Lettres de Gage Mutuelles, Lettres de Gage Énergies Renouvelables as well as potentially several more for the various forms of Lettres de Gage Mobilières. The cover assets remain on the balance sheet of the issuer. They are not transferred to another legal entity (special purpose vehicle) like in a securitisation. All obligations arising from Lettres de Gage are direct, unconditional obligations of the issuer. In the case of issuer insolvency, the cover pools are segregated by law from the general insolvency estate and are reserved for the claims of the Lettres de Gage holders. There is no direct legal link between a single asset in the cover pool and an outstanding Lettre de Gage. Interest and principal payments of the various types of Lettres de Gage (including any derivatives benefiting from the preferential treatment) are backed by the assets in the respective cover pools.

Lettres de Gage issuers employ their own staff. The issuers have to be banks and according to the Financial Sector Act they need to have sound administrative and accounting procedures, control and safeguard arrangements for electronic data processing and adequate internal control mechanisms, which restrict the extent of outsourcing legally possible. In addition, the way of permitted outsourcing is described in detail in different CSSF Circulars.

III. COVER ASSETS

The eligible cover pool assets are defined in Article 12-1 of the Financial Sector Act of 5 April 1993. Since the amendments of the covered bond legislation in June 2018, there are five asset classes: (i) mortgage assets, (ii) public sector exposures, (iii) movable assets, i.e. mortgage loans on ships, aircrafts, trains or other classes of movable assets, (iv) assets issued by credit institutions that are backed by a system of institutional guarantee and (v) lending for renewable energy asset/projects. The cover assets including substitution assets have to be principally established in the EU, the EEA or the OECD. However, the cover pools can contain up to 50% assets from outside the EU, the EEA and the OECD, if a rating agency registered on the ESMA list has assigned sovereign ratings of credit quality step 1 to the respective countries, and up to 10%, if the sovereign ratings are credit quality step 2.

In each of the various cover pools the assets may be replaced by up to 20% of the nominal value of the outstanding Lettres de Gage by substitution assets, for example cash, assets with central banks or with credit institutions or bonds satisfying the conditions set out in Article 43 (4) of the law of 17 December 2010 concerning undertakings for collective investments.

It is also possible to hold the cover assets indirectly through a third-party bank.

The Lettres de Gage Mobilières are backed by movable assets, i.e. mortgage loans on ships, aircrafts, trains or other classes of movable assets. In order to be cover pool eligible, the movable assets and the charges on the property of those assets need to be registered in a public register.

Lettres de Gage Énergies Renouvelables are backed by lending to projects generating renewable energy. That includes all necessary equipment for the generation, storage, and transmission of such energy, including electricity storage facilities, transformers, and power lines, whether under construction or finalised. Renewable energy is defined by the law as "any energy produced from renewable non-fossil sources, namely wind energy, solar, aerothermal, geothermal, hydro-thermal, marine and hydroelectric, biomass, landfill gas, sewage treatment plant gas, biogas and energy produced from similar sources". To be cover pool eligible, production equipment must be used exclusively to produce renewable energy, while storage and transmission equipment needs to be used more than 50% in connection with renewable energy.

In addition, securitised assets are cover pool eligible if they comply with the eligibility criteria laid down for the various types of Lettres de Gage. The amount of securitised assets that are not cover pool eligible per se will be limited to 10% of the collateral pool. This can be achieved in two ways: one option would be that at least 90% of the assets of each securitisation (vehicle) are cover pool eligible. The other option would be that at least 50% of the assets of each securitisation (vehicle) are cover pool eligible. In that case, the percentage of securitisation assets shall not exceed 20% of the total collateral pool. The issuer can choose one of the two options for each type of Lettre de Gage but cannot combine the two options. Moreover, the securitisation tranches should have a rating of the first credit quality step by a rating agency that is registered on the list by ESMA. The law allows only true sale transactions and synthetic securitisations are explicitly excluded.

Any kind of obligation from public sector institutions including public-private partnerships (providing a controlling public sector stake or claims for payment against the public sector) are cover pool eligible.

There is no limitation on the volume and the types of derivatives used as long as they are employed as hedging instruments.

The cover pools are dynamic. Assets can be included, excluded and exchanged as long as the requirements of the law are not breached.

There is an explicit transparency requirement. The issuers have to publish information on the composition of the cover pool, the bonds and the issuers. The details are defined by the CSSF in Circular 18/706.

IV. VALUATION AND LTV CRITERIA

The property valuation methods are defined by a CSSF Circular 01/42 and are based on the mortgage lending value of the property. A special auditor, who may not simultaneously hold the position of company auditor, has the responsibility of determining whether the property valuation has been undertaken according to the valuation rules.

The LTV limit for residential property is 80% of the estimated realisation value. The LTV ratio is 60% for all other immovable and movable properties including commercial real estate loans. The actual loan, however, can exceed the 60% limit (or 80% limit in case of residential mortgages). In those cases, only the first 60% (80%, respectively) of the mortgage lending value is eligible for the cover pool.

The loan-to-value (LTV) ratio for 'renewable energy' loans is limited by law to 50%. The limit might, however, be increased to up to 80% if certain conditions (such as a regulated fixed remuneration regime or free of charge renewable energy sources) are met.

V. ASSET – LIABILITY MANAGEMENT

There is a minimum overcollateralisation level of 2% on a nominal basis as well as on a net present value basis. Mismatches in terms of currency or interest rate risk can be hedged and the respective hedge instruments have to be included in the collateral pool. The cover assets of the relevant cover pool must provide total interest revenue at least equal to the amount of interest of the covered bonds of the same category in circulation. The amendments of the Lettre de Gage law in June 2018 also included the introduction of a liquidity buffer of 180 days. The liquid buffer assets can consist of ECB eligible assets as well as assets qualifying as Level 1 or Level 2A assets under the European LCR rules (excluding own-use covered bonds). In addition, there are the requirements imposed by the rating agencies.

The special auditor has to ensure that there is always sufficient collateral in the pool. This has to be certified by the special auditor when Lettres de Gage are issued. Cover assets may only be removed from the cover pool when the prior written consent of the special auditor has been received and provided that the remaining cover assets are sufficient to guarantee the legally protected cover.

The calculation of the nominal value and of the net present value of the collateral pool as well of the outstanding Lettres de Gage volume must be reported to the supervisory authority on a monthly basis.

VI. TRANSPARENCY

There is an explicit transparency requirement laid down in Article 12-6(2) and supplemented by CSSF Circular 18/706. The issuers have to publish information on the composition of the cover pool, the Lettres de Gage and the issuer. This is in line with the ECBC Covered Bond Label Initiative.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The supervisory authority of covered bond issuers is the CSSF, as already mentioned above. The CSSF has a specialised department which is responsible for supervising the Lettres de Gage issuers. It is entitled to demand relevant reports and intercede if liquidity problems have been identified at a bank.

The CSSF is also responsible for the approval of the various types of covered bonds secured by movable assets. Definitions, the details on which types of movable assets qualify and other practical issues will be clarified in a separate CSSF Circular.

For the independent control of the cover pool a special auditor which is recommended by the Lettres de Gage issuer has to be approved by the supervisory authority. Only auditing firms which satisfy the conditions set forth in the law of 2009 regarding *réviseurs d'entreprises* (independent auditors) can be appointed as special auditors. The issuer communicates the names of the partners of these auditing firms who will fulfil the function to CSSF. The special auditor must have a suitable qualification and must be able to call upon the experience and technical expertise of a recognised international auditing firm.

The special auditor is continuously responsible for monitoring the collateral pool and the outstanding Lettres de Gage. The auditor must ensure that there are sufficient assets in the collateral pool to service the obligations resulting from the outstanding Lettres de Gage up to the final maturity of the last outstanding bond. The auditor is obliged to inform the supervisory authority immediately, should any of the prudential limits be violated. The Lettres de Gage issuer is also obliged to immediately inform the supervisory authority of the violation of any limits.

Rating agencies do not play any mandatory role in the monitoring process. The issuers comply with the rating agencies' requirements on a voluntary basis.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The cover registers for mortgage, public sector, moveable assets, assets backed by a system of institutional guarantee and renewable energy assets include all necessary data to identify the assets and the derivatives included. As soon as an asset or derivative product is registered in the official cover register it forms part of the collateral pool.

The cover register is managed by the issuer but regularly monitored by the special auditor. The special auditor is obliged to inform the CSSF of any irregularities and provide an annual report.

Asset segregation

In the case that a procedure of suspension of payments or compulsory liquidation is opened for a Lettres de Gage issuer, the assets and derivatives in the collateral pool are separated from the other assets and liabilities of the bank. The respective collateral pools remain unchanged and continue with their corresponding Lettres de Gage and their corresponding reserve at the Luxembourgish Central Bank as proprietary compartments of a Lettres de Gage bank with limited activity. The cover pools do not become separate legal entities. The legal entity of the bank remains unchanged. The banking license continues for the bank with limited activity in order to achieve the purpose of administering the cover pool up to the final maturity of the last outstanding Lettre de Gage. The court nominates one or several administrators for the cover pools. This administrator is different from the general bankruptcy administrator. If a procedure of suspension of payments or compulsory liquidation is opened for one cover pool, the other pools are not affected by this decision and continue.

Impact of insolvency proceedings on Lettres de Gage and derivatives

Lettres de Gage do not automatically become due when a procedure of suspension of payments or compulsory liquidation is opened for the issuing bank. Interest and principal are paid as per their original due dates. The same applies to derivatives registered in the cover register which are part of the cover pool. The net present value of the derivatives after netting ranks pari passu with the claims of the Lettres de Gage holders.

Preferential treatment of covered bond holders

Lettres de Gage holders benefit from a preferential treatment in case of an issuer insolvency. The registration of the cover assets in the cover register provides the Lettres de Gage holders with a preferential right, above all other rights, preferences and priorities of any nature whatsoever, including those of the Treasury. But the salary of the administrator and the other fees that are necessary for continuing the bank with limited activity rank first before the claims of the Lettres de Gage holders and the derivative counterparties, which rank pari passu. The general bankruptcy administrator has no direct access to the assets in the collateral pool.

Access to liquidity in case of insolvency

The administrator nominated by the court administers the cash flows resulting from the cover assets and according to the Article 12-10 (5). The administrator can issue Lettres de Gage for the account of the Lettres de Gage bank with limited activity. He/she can approach the Luxembourgish Central Bank for liquidity, where the conditions to be fulfilled as a counterparty for transactions within the framework of monetary politics depend on the Eurosystem.

The administrator can transfer the administration of the cover assets and the Lettres de Gage to another bank.

There is no explicit provision in the law regarding any voluntary overcollateralisation. But the overcollateralisation in a cover pool serves to pay for the expenses for the continuation of the bank with limited activity as well as absorb losses.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The Luxembourg covered bond legislation fulfils the criteria of Article 52 (4) of the UCITS Directive (Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)). In its current format, the Lettres de Gage legislation does not fulfil the requirements set out in Article 129 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, the Capital Requirements Regulation (CRR), together with Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, the Capital Requirements Directive (CRD), implementing the Basel III rules into European law.[1] The last two amendments of the Luxembourg covered bond legislation did not make the Lettres de Gage legislation CRR-compliant. However, it should be possible for issuers to make their outstanding Lettres de Gage "CRR compliant" by limiting their cover pool exposure.

1 Please click on the following link for further information on the UCITS Directive and the CRR: https://hypo.org/ecbc/covered-bonds/.

Lettres de Gage are principally eligible for repo transactions with the European Central Bank (ECB). However, on 28 November 2012, the ECB announced amendments of its eligibility criteria for its repo transactions. The changes entered into force on 3 January 2013. Covered bonds with external, non-intra group securitisations in the cover pool are no longer eligible as collateral for repo transactions as of 31 March 2013. This means that following the end of the grandfathering period in 2014, new and outstanding covered bonds with external RMBS or other ABS (both group-internal or external) in the cover pool are no longer repo eligible.

Issuers: Commerzbank Finance & Covered Bond, DEPFA Pfandbrief Bank International, NORD/LB Luxembourg Covered Bond Bank.

ECBC Covered Bond Comparative Database:
https://www.ecbc.eu/framework/85/Lettres_de_Gage_hypoth%C3%A9caires
https://www.ecbc.eu/framework/86/Lettres_de_Gage_mobili%C3%A8res
https://www.ecbc.eu/framework/105/Lettres_de_Gage_mutuelles
https://www.ecbc.eu/framework/84/Lettres_de_Gage_publiques

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3.25 THE NETHERLANDS

By Joost Beaumont, Chairman of the ECBC Statistics & Data Working Group, ABN AMRO Bank,
Ruben van Leeuwen, Rabobank and Maureen Schuller, ING Bank

I. FRAMEWORK

The Dutch regulatory framework for the issuance of covered bonds initially came into force on 1 July 2008. In order to strengthen the supervisory regime with respect to covered bonds, the Financial Supervision Act was amended in 2014, raising the legal framework for covered bonds to the level of law. The issuance of Dutch covered bonds is regulated since via:

> The Amendment Act Financial Markets of 19 November 2014, published on 5 December 2014;[1]

> The Amendment Decree Financial Markets 2015 of 28 November 2014, published on 19 December 2014;[2]

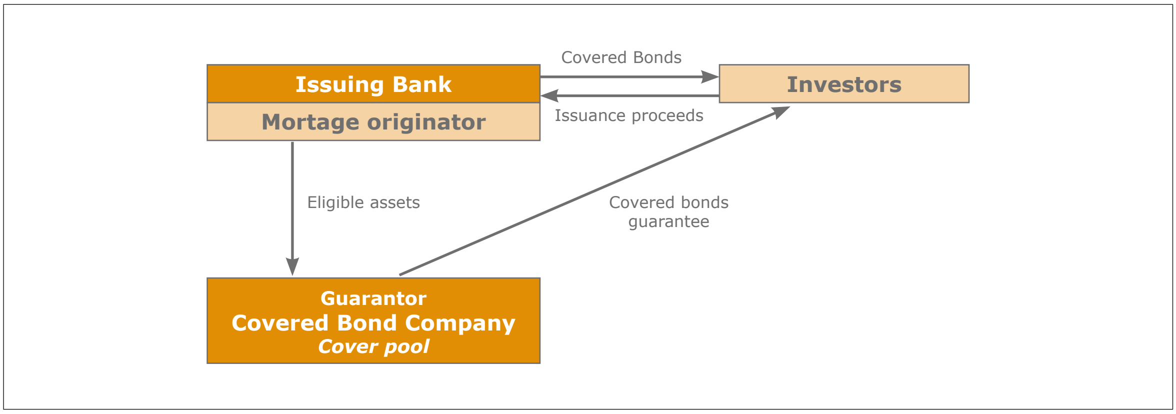
> The Ministerial Regulation amending the Regulation Implementing the Financial Supervision Act on Registered Covered Bonds of 9 December 2014, published on 17 December 2014.[3]

The new regulatory regime came into force on 1 January 2015 per Decree 534 of 11 December 2014. Dutch registered covered bond issuers have to comply with all requirements since 1 January 2016.

II. STRUCTURE OF THE ISSUER

Dutch registered covered bonds can be issued by licensed banks that are located in the Netherlands. The issuing bank has to apply for registration with the Dutch Central Bank, which in turn decides to include a) the issuing entity and b) the category of covered bonds (to be) issued in a *public register*.

> Figure 1: Structural Overview



To be registered, the bank needs to prove that, in the case of a default of the issuer, the covered bondholders have a priority claim over the eligible assets securing coupon and redemption payments due on the registered covered bonds. In practice this means that the issuer has to provide evidence that the cover assets are secured in favour of the covered bondholders via the transfer to a separate legal entity, the Covered Bond Company (CBC). The issuer has to deliver to the supervisor an independent legal opinion confirming this. The Covered Bond Company is established exclusively to isolate the cover assets from the other assets of the bank and to perform the necessary activities for the registered covered bonds.

1 Wijzigingswet financiële markten 2015, nr 472.

2 Wijzigingsbesluit financiële markten 2015, nr 524.

3 Wijziging van de Uitvoeringsregeling Wft ter zake geregistreerde gedekte obligaties, FM 2014/1900 M.

The Covered Bond Company can also enter into agreements for the administration and management of the cover assets, as well as for liquidity and risk management purposes. These include derivative contracts, servicer agreements, asset monitor agreements and management agreements. The Covered Bond Company is not permitted to take actions resulting in payment obligations ranking equal or senior to the covered bondholders, unless these are related to the management, risk management, payment and administration of the registered covered bonds and the cover assets.

III. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

In order to secure the cover assets in favour of the covered bondholders, the assets are transferred to a separate legal entity, the Covered Bond Company, by means of a guarantee support agreement. Under this agreement, the mortgage originator passes on eligible receivables to the Covered Bond Company via an undisclosed or silent assignment. The legal ownership of the mortgage loans is transferred to the Covered Bond Company via a deed of sale and assignment, without notifying the borrowers. The Covered Bond Company guarantees in return to pay interest and principal on the covered bonds to the investors if the issuer defaults (covered bond guarantee). The obligations of the Covered Bond Company are unsubordinated and unguaranteed obligations.

If the issuer defaults on his obligations, a Security Trustee (not shown in the diagram on the previous page) may serve an issuer acceleration notice to the issuer and a notice to pay to the Covered Bond Company in line with the guarantee. As such the covered bonds do not accelerate if the issuer defaults, while the bondholders have full recourse to the assets of the Covered Bond Company. If the Covered Bond Company defaults on its payment obligations the covered bonds may accelerate (hard and soft bullet covered bonds) or may become pass-through conditional on pool sales being unsuccessful and a breach of the amortisation test (conditional pass-through covered bonds).

To ensure the bankruptcy remoteness of the Covered Bond Company, the issuing bank or other group entities are not allowed to hold shares in, or have control over, this legal entity. Furthermore, to assure continuity of the management of the cover assets by the Covered Bond Company post issuer default, the bank has to submit to the supervisor, upon registration, a plan for the management of the cover assets in the event of an issuer default (Post Issuer Default Plan). This plan describes the operational procedures and internal controls related to the programme if the issuer can no longer manage the assets, including the circumstances leading to a transfer of the management tasks to the Covered Bond Company. This plan is set up by the issuer and discussed with the supervisor, but it will not be published.

IV. REGISTRATION REQUIREMENTS AND COVER ASSETS

At the time of registration of a covered bond programme at the Dutch Central Bank, the issuing entity has to indicate the specific features of the covered bond programme. This includes a wide range of conditions, such as the maximum size of the programme, the rights and obligations of the Covered Bond Company, the rights and obligations of the holders of the covered bonds, the type of cover assets, as well as various risk management procedures. In any case, the issuing entity needs to provide information about the following features:

> The redemption profile of the covered bonds, i.e. whether the covered bonds have a hard bullet, soft bullet, or (conditional) pass-through structure. The Dutch law allows issuance from a single programme of covered bonds with a hard bullet structure as well as those with a soft bullet structure with an extension period up to 24 months. In contrast, conditional pass-through covered bonds need to be issued from a separate programme.

> The covered bond programmes of ABN AMRO Bank and ING Bank contain mainly soft-bullet issues. Some covered bonds that have been privately placed (including some denominated in foreign currencies) still have hard bullet structures. Meanwhile, Rabobank and de Volksbank only have soft bullet covered bonds outstanding, while the covered bonds issued by Achmea Bank, Aegon Bank, F. van Lanschot Bankiers,

NIBC Bank and NN Bank all have conditional pass-through structures. In May 2020 NN Bank announced its intentions to also start issuing soft bullet covered bonds.

> The specific nature of the cover pool assets. Public loans, residential mortgages, commercial mortgages, and shipping loans, all qualify as cover assets. Only residential mortgages and commercial mortgages can be combined in a single programme. Currently, all Dutch covered bond programmes are backed by Dutch residential mortgages only.

> The country exposure of the cover assets as well as the law by which they are regulated. Currently, all cover assets fall under Dutch law.

The Dutch Covered Bond Law further stipulates that each issuer will make sure the above-mentioned features will be satisfied during the entire lifetime of the covered bond transaction, so that all covered bonds issued from the same programme have the same features. This is both to protect investors as well as to enhance transparency.

Primary cover assets

The cover assets should meet the CRR Article 129 requirements, implying that the followings assets are eligible:

> Exposures to or guaranteed by central governments, central banks, public sector entities, regional governments, local authorities, multilateral development banks, international organisations as referred to in article 129 CRR, paragraph 1(a) and (b);

> Residential mortgages up to a 80% LTV ratio;

> Commercial mortgages up to a 60% LTV ratio;

> Ship loans up to a 60% LTV ratio;

> Other assets that can be made eligible under a Ministerial Regulation.

In the Netherlands, only one type of primary cover assets can be used as collateral for a specific covered bond programme, except for residential mortgages and commercial mortgages. Residential and commercial mortgages can be used as collateral in a single programme, but only in a predefined mix (that is not allowed to change during the life of the transaction). Securitisation notes are not eligible as collateral. To avoid confusion, Dutch mortgage loans carrying a guarantee from the government-sponsored Nationale Hypotheek Garantie (NHG) scheme, are treated as normal residential mortgages in all current Dutch covered bond programmes, subject to an 80% LTV cut-off for asset coverage requirement purposes.

Substitute cover assets

The Dutch Covered Bond Law also allows for substitution assets to be included as cover assets. However, the inclusion of these type of assets is restricted to a maximum of 20% of the outstanding covered bonds. Eligible as substitution assets are public sector exposures and exposures to institutions as referred to in the CRR Article 129 (1a, b, c). Furthermore, exposures that are explicitly permitted by the Dutch Central Bank as referred to in CRR Article 129 (paragraph 1, third sub-paragraph) will also be allowed.

Country exposure of cover asset

The law notes that the debtor of the cover asset as well as the collateral related to the cover assets are located in the EU, the European Economic Area, or, as assessed by the European Commission, in a country with prudential supervisory as well as regulatory requirements that are at least equivalent to those in the EU. Currently, cover assets backing Dutch covered bond programmes exclusively consist of Dutch residential mortgages.

Assets that are not allowed

Certain types of assets are not allowed as cover assets, such as impaired loans referred to in CRR Article 178, assets to which a specific legal claim is attached that supersedes the ownership entitlement of the owner of the assets, or exposures of owners of the cover assets to the issuing bank or entities of the same group (such as deposits).

V. VALUATION AND LTV CRITERIA

Loans backed by immovable property, such as residential and commercial mortgages, should meet the (valuation) requirements set out in CRR Article 208 and 229 (1), which includes, among others, legal enforceability as well as sound underwriting criteria. This CRR articles also state that the value of the property should be valued by an independent valuation agent on an annual basis for commercial properties, and every three years for residential properties. The Dutch Covered Bond Law is a bit more strict and prescribes that the valuation has to be updated every year. The supervisor can even request a more frequent valuation if it sees a need to do so, for example during times of sharp house price declines.

The value of Dutch property is based on the market value. Most covered bond issuers take a prudent approach when adjusting the value of the properties that are included in the cover pools. For example: all issuers take fully into account any house price decreases, while most issuers adjust for house price increases only partially. Indexation takes place on a monthly basis by means of the house price average in the Netherlands according to the Kadaster house price index or other recognised methods.

In order to comply with the CRR requirements, residential mortgages with an LTV higher than 80% will only be recognised up to an 80% LTV (60% LTV for commercial mortgages). In a situation where mortgages with an LTV of higher than 80% are included in the cover pool, this mortgage loan will only count for a maximum of 80% in the asset cover test. The difference between the actual (higher) LTV and the 80% maximum will serve as an extra credit enhancement.

No Loan-to-Income (LTI) thresholds are applicable in the Dutch covered bond regulation or programmes, but since 2013, all new Dutch mortgages have been subject to strict statutory LTI maximums at origination.

VI. ASSET – LIABILITY MANAGEMENT

Asset coverage requirements

The Dutch Covered Bond Law provides for two distinct asset coverage requirements:

> The total value of the cover assets (using the actual outstanding loan amount) always has to be equal to at least 105% of the nominal value of the outstanding registered covered bonds.

> The total value of the cover assets (using the CRR LTV cut-off percentages) always has to be equal to at least 100% of the nominal value of the outstanding registered covered bonds.

For the purpose of the calculation of these overcollateralisation tests, the primary cover assets are recognised at their nominal value and substitute cover assets at their market value. Banks typically commit contractually to higher overcollateralisation levels under the asset cover test for, amongst others, rating agency purposes.

Liquidity coverage requirements

Issuers, furthermore, need to ensure that the Covered Bond Company always maintains sufficient liquid assets or generates sufficient liquidity via the cover assets to fulfil the *coupon and redemption obligations* on the covered bonds over a period of six months, including other obligations ranking senior to the covered bondholders (legal liquidity coverage requirements). The liquidity buffer requirement with respect to *redemption payments* is not applicable for covered bonds with maturity extension periods of more than six months (soft-bullet or conditional pass-through). Cash flows from derivatives contracts related to the covered bond liabilities are also taken into consideration.

The legal liquidity coverage requirements differ from the contractual liquidity coverage requirements. An example of this is the contractual *pre-maturity test* applied by Dutch issuers with regard to the redemptions of hard bullet covered bonds. This pre-maturity test is subject to issuer rating triggers and a test period of twelve months.

Dutch issuers furthermore contractually commit to cover at least three months of interest expenses on the covered bonds by means of a *reserve fund* or a *reserve accounts*. In practice the legal liquidity coverage requirements overlap with the contractual liquidity coverage requirements.

Risk management procedures

The issuing bank has to employ reliable and effective risk management procedures to assure that sufficient eligible primary cover assets and substitute assets are available at all times during the life of the registered covered bond to meet, amongst other things, all overcollateralisation and liquidity requirements.

The Covered Bond Company can only enter into derivative contracts (such as currency swaps, interest rate swaps and total return swaps) or other risk mitigating contracts, if these support the risk management of the programme in favour of the registered covered bondholders. The counterparty to these agreements should not have the right to terminate the contract or to suspend its obligations under the contract if the creditworthiness of the issuing bank deteriorates. If the counterparty itself no longer meets the minimum creditworthiness requirements, it should provide for sufficient collateral, a suitable third-party guarantee, or replace itself.

As a result of changes in especially the regulatory landscape the use of derivative contracts to mitigate (interest rate) risks associated with the registered covered bonds has diminished in importance in recent years. Instead, several issuers decided to introduce interest reserve requirements, minimum mortgage interest rate requirements and/or to pledge additional collateral.

Asset encumbrance restrictions

The Dutch Covered Bond Legislation provides for discretionary *soft asset encumbrance restrictions*. The Dutch Central Bank makes sure, on a case-by-case basis, that a healthy relationship is maintained between the nominal value of the registered covered bonds outstanding and the consolidated balance sheet total of the issuing bank (the so-called healthy ratio). The going-concern interests of the bank, in terms of stability and funding source efficiency, as well as the post-bankruptcy interests, including those of other unsecured creditors, are assessed. The issuance ceiling for covered bonds (the maximum amount of covered bonds than an issuer is allowed to have outstanding) is determined upon registration and is reviewed annually. The Dutch Central Bank can prohibit a bank from issuing any further registered covered bonds if it is of the opinion that the *healthy ratio* requirements are breached. The Central Bank can also decide to reject a request for registration on these grounds.

Stress testing

The issuer has to prepare stress tests on a regular basis for the Dutch Central Bank to show that there are sufficient primary cover assets available (i.e. unencumbered) on its balance sheet for replenishment purposes. Credit risk, interest rate risk, currency risk and liquidity risk all have to be considered, including the derivative contracts mitigating these risks. Other risks deemed relevant by the Dutch Central Bank, such as housing price shocks, must be considered as well. The stress tests related to these risks can also be performed on a combined basis.

VII. TRANSPARENCY

Before registration of its programme the covered bond issuer already needs to report a lot of detailed information to the supervisor on the specific features of the covered bond programme (see paragraph III). After registration, the Dutch Covered Bond Law stipulates that the issuing entity shows at least every quarter to the Dutch Central Bank that the programme still fulfils all requirements, while it shows on at least an annual basis that it has enough unencumbered primary cover assets available for replenishment purposes (under different stress scenarios). Issuers also provide the Dutch Central Bank with an annual report of the Covered Bond

Company within six months after closing of the reporting year. Finally, issuers need to notify the Dutch Central Bank in advance of any (upcoming) significant changes to the covered bond programme.

The Dutch law requires issuers to provide investors with the following information at least on a quarterly basis:

> Information on the credit risk, market risk, exchange rate risk, interest rate risk, and liquidity risk related to the cover assets and the covered bonds;

> The nominal value of the covered bonds outstanding;

> The total value and composition of the cover pool, including the geographical distribution;

> The ratio between the total value of the cover assets and the total nominal value of the covered bonds;

> The ratio between the total value of the cover assets when applying the CRR requirements and the nominal value of the covered bonds;

> The ratio between the total value of liquid assets and the upcoming interest payments (and redemptions if hard bullet structure) and other mandatory payments within the next six months;

> The maturity structure of the cover assets as well as the covered bonds;

> The percentage of cover assets in arrears (i.e. more than 90 days overdue); and

> Information about the counterparties of the Covered Bond Company.

All Dutch registered covered bond issuers currently publish investor reports on a monthly basis. These reports can be found on their websites, while there is also a link on the website of the Dutch Association of Covered Bond Issuers (DACB) to these reports and via the national information pages on the Covered Bond Label website. The Dutch issuers have also implemented the Harmonised Transparency Template (HTT).

VIII. COVER POOL MONITOR AND BANKING SUPERVISION

The issuer has to appoint an asset monitor (which could be the issuing banks own external accountant) before its first issuance under a registered covered bond programme. At least once a year, the asset monitor has to check the asset coverage and liquidity coverage calculations. For as long as the issuing bank is capable of managing the cover assets, the asset monitor, randomly checks the files relating to the cover assets on an annual basis, including the valuation and administration of the assets, and reports its findings to the supervisor. These random checks can also be arranged separately with a different (not the issuing banks own) external accountant. The asset monitor agreement has to assure however that the asset monitor continues to perform its duties after an issuer event of default. To safeguard this, the Covered Bond Company will become a party to the asset monitor agreement. The agreement can also stipulate explicitly that the obligations of the asset monitor will remain unaffected by the situation of the issuing bank.

Dutch registered covered bond programmes are furthermore subject to special supervision of the Dutch Central Bank. The Dutch Covered Bond Legislation gives substance to the special supervision via a set of strict requirements during the registration phase and post registration.

> Upon registration, the issuing bank has to provide the Dutch Central Bank with a written statement by the board of directors that all the regulatory requirements are met regarding the asset segregation, asset coverage, liquidity coverage and risk management procedures. The bank furthermore has to demonstrate that it fulfils all legal requirements ensuring that the payment obligations due on the registered covered bonds are adequately secured. The bank has to specify the conditions applicable to the covered bonds, such as the redemption profile, the type of primary cover assets, whether the assets are CRR eligible, and the geographical location of the assets. The bank, additionally, has to demonstrate that it is able to meet the reporting obligations towards the Dutch Central Bank and the covered bondholders.

> After registration, the issuer has to make sure that the registered covered bonds continue to meet the registration requirements. The Dutch Central Bank will confirm in the register whether a category of registered covered bonds meets the CRR Article 129 requirements. The CRR listing remains intact for as long as the covered bonds meet the requirements. A category of registered covered bonds cannot be deregistered, but the Dutch Central Bank can decide to *deregister the issuer*, if the issuer no longer complies with the regulatory requirements. The Dutch Central Bank can also impose a penalty or a fine if an issuer fails to meet its obligations. A deregistered issuer is not allowed to issue any new covered bonds.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Dutch registered covered bonds are UCITS 52(4) compliant, while they also meet all current requirements of the CRR Article 129[4]. So, they should be eligible for a 10% preferential risk weight treatment under the Standardized Approach. The bonds are also Solvency II and ECBC Label compliant. Furthermore, the currently outstanding Euro benchmark covered bonds fall within the Level 1 category of the LCR.

X. ADDITIONAL INFORMATION

It is worthwhile noting that the update of the Dutch Covered Bond Law, effective as of 1 January 2015, has seen a convergence in the Dutch Covered Bond Legislation towards the best practices as proposed by the European Banking Authority, increasing transparency and investor protection. As a result, the Dutch regulatory framework is well positioned in terms of amendments required to align the law with the new European Covered Bond Directive and Regulation.

Finally, more information on Dutch covered bonds can be found on the website of the Dutch Association of Covered Bond Issuers (www.dacb.nl), which was established in 2011 and has the following objectives:

> To represent the interests of the Dutch issuers in discussions with legislative and regulatory authorities;

> To provide investors with information about the Dutch covered bond market;

> To participate on behalf of the Dutch issuers in international covered bond organisations like the ECBC;

> To continuously improve the quality of the Dutch covered bond product offering.

Issuers: ABN AMRO Bank, Achmea Bank, Aegon Bank, F. van Lanschot Bankiers, ING Bank, NIBC Bank, NN Bank, Rabobank, de Volksbank.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/65/Dutch_registered_CBs_programmes

COVERED BOND LABEL: ING Bank N.V. (2 pools), ABN AMRO Bank N.V. (2 pools), de Volksbank N.V. (1 pool), NIBC Bank N.V. (1 pool), Van Lanschot Kempen Wealth Management NV (2 pools), Aegon Bank N.V. (1 pool), Coöperatieve Rabobank U.A. (2 pools), Nationale-Nederlanden Bank N.V. (1 pool, in the future 2 pools), Achmea Bank N.V. (1 pool).

4 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.26 NEW ZEALAND

By Frank Will, HSBC & Chairman of the EU Legislation Working Group

SUMMARY

The first covered bond was issued out of New Zealand in June 2010. At that time, New Zealand did not have a legislative covered bond framework and the domestic issuers used the well-tested general law-based covered bond approach following in the footsteps of the UK, France, and Canada. Since then, the regulatory authorities in New Zealand have developed dedicated covered bond legislation to support further growth of this market segment. In May 2012, the Minister of Finance introduced the Reserve Bank of New Zealand (Covered Bonds) Amendment Bill (Amendment Bill) into Parliament. Following a lengthy consultation process with the House of Representatives, the law on covered bonds came into force in December 2013, by virtue of the Reserve Bank of New Zealand (Covered Bonds) Amendment Act 2013.

Since the amendment act has come into effect and following a 9-month transition period, banks are only allowed to issue covered bonds under registered programmes. During the transition period, all issuers registered their covered bond programmes that existed before the legislation came into effect with the Reserve Bank of New Zealand. Once the programmes were registered, the previous issued covered bonds also received the benefit of the new legislation.

I. FRAMEWORK

No covered bond regulation was in place in June 2010 when New Zealand covered bonds were first issued and issuance of covered bonds was neither prohibited nor limited by any prudential requirements or other regulation.

In October 2010, the central bank released a consultation paper on proposals for a regulatory framework to provide additional certainty to investors, and to improve the disclosure requirements in order to support the development of the covered bond market in New Zealand.

In January 2011, the Reserve Bank of New Zealand (RBNZ) introduced a regulatory issuance limit for the issuance of covered bonds by New Zealand banks (which came into force in April 2011). The regulation limits the value of assets encumbered for the benefit of covered bondholders to 10% of total assets of the issuing bank. At that time the RBNZ said that this was an initial limit and that its appropriateness would be reviewed by the Central Bank, taking into account the developments within the covered bond market in New Zealand.

In December 2011, the RBNZ conducted another public consultation. The final paper was in essence aligned with the earlier consultation paper. Following approval by Cabinet in April 2012, the Reserve Bank released a Cabinet paper and Regulatory Impact Statement confirming policy positions relating to the matters discussed in the Reserve Bank’s December 2011 consultation paper on covered bonds.

In May 2012, the first reading on the Amendment Bill took place. Following its first reading, the Bill was referred to the Finance and Expenditure Select Committee. In February 2013 the second reading took place. Following a third and final reading, the Amendment Bill was passed by the Parliament and received Royal Assent in December 2013. It came into force on 10 December 2013.

The New Zealand covered bond legislation gave existing covered bond issuers nine months to register their covered bond programme with the RBNZ. Each issuance under the programme is also proposed to be registered with the RBNZ. All NZ issuers have registered their old programmes which means that all outstanding NZ covered bonds receive now the benefit of the legislation.

II. STRUCTURE OF THE ISSUER

As of July 2018, issuers from five New Zealand banking groups have issued covered bonds, being ANZ Bank New Zealand Limited (ANZ), ASB Bank Limited (ASB), Bank of New Zealand (BNZ), Westpac New Zealand Limited (Westpac) and Kiwibank Limited (Kiwibank). With the exemption of Kiwibank, all issuers are ultimately owned by Australian parent banks. However, the Australian parent companies ANZ, CBA, NAB and Westpac do not guarantee the covered bonds. Typically, NZD denominated bonds have been issued directly by the New Zealand banks, while non-NZD bonds have been issued through the London branches of their respective subsidiaries and are guaranteed by the New Zealand parent company. The RBNZ emphasised from the outset that it is supportive of the covered bond product. Banks can issue bonds backed by a dynamic pool of assets, and the covered bonds rank pari passu to each other. The covered bonds are irrevocably guaranteed by the covered bond guarantor (CB guarantor) under the covered bond guarantee. The CB guarantor will only make payments under the bonds when (a) an issuer event of default has occurred, and a notice to pay is served on the CB guarantor or, (b) a CB guarantor event of default has occurred and a covered bond guarantee acceleration notice is served on the CB guarantor and the issuer.

Under the covered bond law, issuers are required to register their programmes with the RBNZ.

III. COVER ASSETS

The covered bond law does not restrict the type of cover assets. The Reserve Bank stated on its website that the assets eligible to be included in the cover pool do not need to be prescribed by legislation because banks specify asset eligibility in programme documentation. In the Reserve Bank's opinion, legislative restrictions on cover pool assets may unnecessarily restrict an issuer's ability to develop covered bond programmes.

The existing covered bond programmes are backed by a dynamic pool of residential mortgage loans originated in New Zealand. The common eligibility criteria for these mortgage loans across the programmes are listed below:

> Denominated and repayable only in New Zealand Dollars (NZD);

> Secured by first ranking residential mortgages in New Zealand;

> Mortgage loans with a term not exceeding 30 years;

> Outstanding principal balance of no more than NZD 1.5mn (Westpac)/NZD 2.0mn (ANZ, ASB, Kiwibank)/ NZD 2.5mn (BNZ); and,

> Not in arrears/have not been in default for more than 30 days.

Some of the issuers have additional features beyond these requirements. Moreover, issuers are also allowed to hold liquid substitution assets. These assets are subject to an overall limit of 10%-20% of the cover portfolio depending on the issuer (Westpac and BNZ 15%, ANZ, ASB and Kiwibank 10%), with the exception of cash that has no limit.

IV. VALUATION AND LTV CRITERIA

In New Zealand, every property is typically valued during the underwriting process. All five existing covered bond programmes do not restrict the LTV limit for mortgage loans in the cover pool. However, in the case of ASB and Westpac, the Asset Coverage Test (ACT) caps the valuation of the property at 75%. In case of ANZ, BNZ and Kiwibank this cap is set at 80%. In effect, this means the maximum amount of a loan that can count in the ACT test is 75% or 80% of the property value respectively.

V. ASSET-LIABILITY MANAGEMENT

Issuance limit: As mentioned above, there is a regulatory issuance threshold which limits the value of assets encumbered for the benefit of covered bond holders to 10% of the total assets of the issuing bank. The RBNZ highlights that this is an initial limit and its appropriateness will be reviewed taking into consideration the development of the covered bond market. The RBNZ stated that the 10% limit is "similar to the limit set in Australia" of 8%. However, the limit is "specified differently" from Australia's. "The New Zealand limit applies at all times, whereas the Australian limit applies only at the time of issuance. In addition, if an Australian bank holds cover pool assets in excess of the limit, it must deduct the value of the excess amount from its capital in calculating its regulatory capital adequacy ratios: if a New Zealand bank breaches its cover pool limit, it is in breach of its conditions of registration."

Currency and interest hedging: The underlying mortgage loans are denominated in NZD. However, covered bonds can be issued in other currency denominations, which introduces currency risk for the issuer. Moreover, the interest payable for the covered bonds will not exactly match the interest received on the mortgage loans in the collateral pool. Under the existing covered bond programmes, the issuers are required to hedge the interest and currency risks.

Soft vs hard bullet structures: The existing issuers (ANZ, ASB, BNZ, Kiwibank and Westpac) can issue hard bullet covered bonds, or covered bonds with extendable maturity of one year ("soft bullet" bonds). Hard bullet covered bonds will be subject to a 12-month pre-maturity test giving the CB guarantor 12 months to raise liquidity by selling assets of the pool.

Overcollateralisation (OC): The issuers have committed to various OC levels under the prospectuses and to the rating agencies. The covered bond law only requires that the value of the cover pool assets is at least equal to the principal amount outstanding on the covered bonds.

VI. COVER POOL MONITOR AND BANKING SUPERVISON

The law stipulates that registered covered bond issuers must appoint an independent asset monitor. The asset monitor must either be a licensed auditor or an auditing firm (or a person/firm that has been approved by the RBNZ). In this context independent means independent from both the issuer and any associated person of the issuer, whereby a person's appointment as auditor does not affect his, her, or its independence.

The existing issuers provide investor reports on a monthly or quarterly basis. In addition, monthly or quarterly reports are prepared for the rating agencies. The agencies re-calculate the required asset percentage used in the ACT on a regular basis and prior to each issuance under the respective covered bond programme. On an annual basis the asset monitor checks the arithmetic accuracy of the calculations performed by the calculation manager (usually the issuer), with respect to the asset coverage test or amortisation test (as applicable).

The law introduces the requirement for an asset register to be maintained. The asset monitor also carries out an annual check that the asset register has been updated accurately and in a timely manner.

If the issuer rating of the calculation manager is downgraded below a certain trigger level, the asset monitor will check the arithmetic accuracy of the calculations performed by the calculation manager on a monthly basis. Moreover, (1) if the asset monitor identifies any errors in the calculations performed by the calculation manager which result in a failure in the asset coverage test, or (2) if the adjusted aggregate mortgage loan amount or the amortisation test aggregate mortgage loan amount is misstated by the calculation manager by an amount exceeding 1%, or (3) if the asset register has not been maintained as required, then the asset monitor will be required to carry out the applicable check on a monthly basis until the asset monitor is satisfied that no further inaccuracies exist.

VII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The covered bonds are direct, unsecured, unsubordinated and unconditional obligations of the relevant issuer. In addition, the CB guarantor guarantees the payments of interest and principal of the covered bonds. The issuer provides a subordinated loan to the CB guarantor which allows the CB guarantor to acquire a mortgage loan portfolio. The portfolio includes mortgage loans and the related security sold by the seller in accordance with the terms of the mortgage sale agreement.

The mandatory registration required by the new covered bond law involves the recognition of a covered bond issued with the effect that the cover assets would be explicitly protected from the insolvency or statutory management of the issuer. The RBNZ must keep a public register of registered covered bond programmes and issuances under each programme. Moreover, the covered bond law requires that the cover pool assets are held by a Special Purpose Vehicle (SPV), which is a separate legal entity from the issuer.

Under the existing covered bond programmes, the sale of the loans and their underlying security by the seller to the CB Guarantor is in the form of equitable assignment of the seller's rights, title, interest and benefit in and to the loans, their related security and the other assets which are being sold. The equitable assignment requires neither a notice to the borrowers nor a registration in the land registry. As a result, the legal title to the mortgage loans remains with the seller until legal assignment is delivered to the CB guarantor and notice of perfection of legal title is given to the borrowers. The perfection of title of the mortgage security to the CB guarantor will be triggered by certain trigger events including the notice to pay on the CB guarantor, downgrade of the issuer to sub-investment grade or insolvency of the issuer. The equitable assignment is a well-known procedure in the UK and is usually used by the covered bond issuers in the UK.

VIII. RISK-WEIGHTING AND COMPLIANCE WITH EUROPEAN LEGISLATION

The RBNZ accepts NZD denominated AAA rated covered bonds for its Domestic Markets Operations. For maturities of less than three years the haircut is 5% while covered bonds with a maturity of three years or longer are subject to a higher haircut of 8%. This includes covered bonds issued by New Zealand banks.

The covered bonds issued directly by financial institutions with registered offices in New Zealand are neither CRR nor UCITS compliant as both frameworks require the issuer to be based in the EU. The New Zealand covered bonds, therefore, do not benefit from the lower risk weighting for bank treasuries in the EU.

Issuers: ANZ Bank New Zealand, ASB Bank, BNZ, Kiwibank, Westpac Securities NZ.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/114/New_Zealand_Covered_Bonds

3.27 NORWAY

By Michael H. Cook, Finance Norway

I. FRAMEWORK

The Norwegian Covered Bond Legislation came into force on 1 June 2007. Since then, both the new Norwegian Act on Financial Institutions (hereafter "the Act") and the corresponding Regulation (hereafter "the Regulation") have been introduced. The Act, which became effective from 1 January 2016, has amended the covered bond framework so that covered bond issuers are treated the same as banks in the event of insolvency, i.e. cannot be declared bankrupt but will rather be placed under public administration. In addition, it enabled the Ministry of Finance (MoF) to set a legal minimum overcollateralisation requirement (a 2% requirement was introduced in March 2017). The Regulation concerning financial institutions came into force on 1 January 2017 but did not represent any fundamental changes to the regulatory framework concerning covered bonds (merely making it more user-friendly). The legislation provides investors very strong protection on their investments and is closely linked to corresponding EU directives and regulation.

Issuance of Norwegian covered bonds started with an issuance denominated in euro in the second half of 2007. The covered bonds market in Norway was barely untested before the global financial crisis hit the following year. Norwegian banks did not experience any substantial increase in losses during the crisis, but the liquidity shortage triggered by the turmoil in international financial markets also spread to Norwegian markets.

In order to provide liquidity to the market, the authorities offered to swap treasury bills for covered bonds from Norwegian issuers. During 2008 and 2009 a total of 230 bn kroner (about EUR 23 bn euros) of Norwegian covered bonds were exchanged in swap agreements with the government. A high demand for covered bonds in the following years gave a smooth phase out of the swap agreement. In June 2014, the final bonds used in the swap agreement came to maturity.

A proposal on Norwegian implementation of the EU-framework on covered bonds has been prepared by the Supervisory Authority and has been sent on public consultation by the Ministry of Finance. The consultation period ends 17 August 2020. The authorities have pointed to the fact that there is little need for major changes in Norwegian legislation when implementing the framework. Furthermore, the current Norwegian legislation is deemed to have worked well which implies little need for any additional amendments. The Ministry of Finance has expressed its intention to establish a harmonised framework in line with other European jurisdictions and will look to the work done in other countries after the consultation deadline. The MoF has also stated that the new legislation will enter into force in Norway in line with the EU (i.e. 8 July 2022).

II. STRUCTURE OF THE ISSUER

According to Norwegian legislation, covered bonds may only be issued by specialised credit institutions. Today there are 24 such institutions in Norway. A majority are subsidiaries of individual parent banks, while a few issuers are owned by groups of banks. The institutions are subject to the same type of regulations as other Norwegian financial institutions, for example capital adequacy requirements, liquidity management requirements etc. The issuers are subject to a supervisory regime that involves both an independent inspector and a public supervisor, the Financial Supervisory Authority of Norway ("Finanstilsynet"). The smallest issuers only issue bonds in local currency (NOK) in the domestic market, while the largest issuers are on a regular basis present in international capital markets.

Cover pools are dominated by residential mortgages, and majority of issuers are specialised residential mortgage institutions (cf. the name "Boligkreditt"). Only a small number of issuers are specialised in commercial mortgages or in public sector loans. Covered bonds from such issuers constitute 2,4 % of the total outstanding volume.

A licensed credit institution may raise loans by issuing covered bonds where the object of the institution, as laid down in the articles of association, is to grant or acquire residential or commercial mortgages, public sector loans and loans secured by other registered assets. In addition, the company should finance its lending business primarily by issuing covered bonds. The articles of association of the institution shall state which types of loans that shall be granted or acquired by the institution. The scope of the business will therefore be restricted, and institutions will have a very narrow mandate, which ensures transparency.

III. COVER ASSETS

Under the Act the cover pool may only consist of the following assets:

- Residential mortgages;
- Commercial mortgages;
- Loans secured by other registered assets;
- Public sector loans;
- Assets in form of derivative agreements (in accordance with regulation);
- Substitute assets (in accordance with regulation).

Mortgages have to be collateralised with real estate or other eligible assets within the EEA or OECD, and the same geographical requirement applies to the location of the public sector loan borrowers. The Regulation adds rating requirements on the national government of the country where the mortgaged property or the borrower has its location.

The substitute assets may constitute up to 20% of the cover pool and are required to be both secure and liquid. The FSA may in certain situations authorise the share of substitution assets to increase to a maximum of 30% for a limited period.

IV. VALUATION AND LTV CRITERIA

LTV

The maximum loan-to-value ratio (LTV) is fixed by the Regulation. For residential mortgages the LTV limit is set to 75%, while the limit is 60% for mortgages concerning holiday/leisure properties and commercial mortgages. The mortgage credit institution shall monitor the development of the LTV of the individual asset as well as the market of the underlying assets.

Valuation

Upon inclusion of loans in the cover pool, a prudent market value shall be set. This shall be done on an individual basis by an independent expert. The valuation shall be documented. The valuation of residential properties may, however, be based on general price levels if justifiable by market development. For holiday/leisure properties the value may only be based on general price levels after the inclusion in the cover pool.

The credit institution shall establish systems for monitoring subsequent price developments. Should the property prices fall, the part of a mortgage that exceeds the relevant LTV limit is still part of the cover pool and protects the holders of preferential claims. However, it will not be taken into account when calculating the overcollateralisation in the cover pool. The same principle applies to loans that are in default, i.e. more than 90 days in arrears.

There are four main sources of market values: sales prices, real estate agent appraisals, surveyor values and Automated Valuation Model (AVM).

In Norway, most real property is sold through authorized real estate agents. They have undergone special training to operate as an estate agent and are subject to strict authorisation rules and control routines on part of the authorities.

There is one marketplace, Finn.no, where most residential properties are put up for sale. This makes it easy to do proper marketing for properties for sale, and both seller and buyer are acting knowledgeably. Properties sold through Finn.no are sold as an open auction. The auction price will then reflect the true market valuation of the property.

Valuation is part of the real estate agent education in Norway. Most market value appraisals applicable to mortgages are compiled in a system called Etakst. Etakst is a digitalised system developed by the Norwegian mortgage industry and contains two parts:

1. Valuation software for the real estate agent;
2. Documentation of market values for the banks.

Etakst provides a standardised approach for real estate agents to compute market values. The agents will always provide data on key features (pictures, market value based on similar dwellings in the same area etc.) for the mortgage bank.

The bank is granted access to the data when the applicant or the real estate agent provides a unique reference number to the mortgage bank. The bank will receive warnings if the applicant has done multiple valuations on their property within the last six months. Etakst is compliant with international valuation standards such as European Valuation Standards (EVS) and International Valuation Standards (IVS).

Most Norwegian banks make extensive use of Eiendomsverdi as an AVM (automated valuation model) provider, for estimating market values of residential real estate and updating the values in accordance to subsequent development in the residential real estate market. The market value estimates are based on a complex valuation model and is performed on a property-by-property basis. The model is used both at origination, as a benchmark for physical valuations, and for updating market values on banks mortgage portfolios.

Most Norwegian covered bond issuers update the valuations on the properties in the portfolio on a quarterly basis. These updates are based on Eiendomsverdi's AVM. For each property, market value estimates are calculated using information on the specific property, comparable sales, and other attributes relevant for the housing market. Due to the richness and granularity in Eiendomsverdi's database (all residential property sales in Norway are recorded daily into the database), the estimates from Eiendomsverdi's AVM are perceived as robust, and will adapt to changes in market conditions on a daily basis. Eiendomsverdi is a member of the European AVM Alliance (EAA) and comply with the "European Standards for Statistical Valuation Methods".

V. ASSET – LIABILITY MANAGEMENT

The Norwegian covered bond legislation has originally imposed a strict balance principle, implying that the value of the cover pool always shall exceed the value of the covered bonds. On the 29 March 2017, the MoF announced that an OC-requirement, in addition to the strict balance principle, was set at 2 percent with immediate effect.

The Regulation establishes a mark-to-market principle of both assets and liabilities. Only the value of mortgages within the LTV limits is taken into account in this context. The Act caps the maximum exposure to one single borrower at 5% of the cover pool when calculating the overcollateralisation.

All voluntary OC are part of the cover pool and some issuers have committed themselves to a certain level of OC. Equally, the credit institution shall ensure that the payment flows from the cover pool enable the institution to honour its payment obligations towards holders of covered bonds and derivative counterparties at all times. It shall establish a liquidity reserve to be included in the cover pool as substitute assets in addition to carrying out periodically stress tests to ensure satisfactory liquidity management.

A covered bond issuer shall not assume greater risk than what is prudent at all times. It is obliged to establish a limit on the interest rate risk in relation to its own funds and potential losses. This shall be based on a parallel shift of 1 percentage point in all interest rate curves as well as non-parallel shifts in the same curves. Furthermore, a covered bond issuer shall not be exposed to any substantial foreign exchange risk and is thus obliged to establish limits on such risks. For the largest issuers, the issuance is often denominated in EUR with a fixed rate, whereas the mortgages are typically in NOK and with a floating rate. Consequently, Norwegian issuers are dependent on using derivatives to remove FX- and interest rate risk and to satisfy regulatory requirements.

If a derivative agreement has a positive mark to market value, the amount will be a part of the cover pool. If the value is negative, the counterparties in the derivative agreement will have a preferential claim in the pool, ranking pari passu with the holders of covered bonds. As a corollary to this, the counterparties in the derivative agreements will be subject to the same restrictions with respect to the declaration of default as the bondholders.

VI. TRANSPARENCY

Finance Norway and the Norwegian Covered Bond Council have recommended that all Norwegian issuers use the Harmonised Transparency Template (HTT) to increase transparency and comparability. In this relation, a "Norwegian version" of the HTT has been developed based on some common standards from the previously developed national template.

The HTT is only mandatory for issuers with a "label" from the Covered Bond Label Foundation. Norwegian issuers with such label are DNB Boligkreditt, Eika Boligkreditt, Nordea Eiendomskreditt, SpareBank1 Boligkreditt, Møre Boligkreditt, Sparebanken Sør Boligkreditt, Sparebanken Vest Boligkreditt and SR-Boligkreditt.

The HTT for Norwegian issuers can be found on Finance Norway's webpage:
www.finansnorge.no/en/covered-bonds/.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Norwegian issuers are subject to a supervisory regime involving both an independent inspector ("cover pool monitor") and the public supervisor, the FSA.

The institution shall notify the FSA no later than 30 days prior to the initial issuance of covered bonds. No further approvals from the authorities are needed when issuing covered bonds with an exception should the financial strength of the institution gives rise to concern.

The mortgage institution shall maintain a register of issued covered bonds, and of the cover assets assigned thereto, including derivative agreements. To oversee that the register is correctly maintained, an independent inspector shall be appointed by the FSA. The inspector shall regularly review compliance with legislative requirements and report to the FSA.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The term "covered bonds", (in Norwegian "obligasjoner med fortrinnsrett" or "OMF") is protected by law and may only be applied under the rules of covered bonds. Under the Act, covered bond issuers cannot be declared bankrupt, but have to be placed under public administration if facing solvency or liquidity problems. This gives the authorities more flexibility to deal with covered bond companies, while maintaining the rights of covered bond holders. The liquidator shall ensure proper management of the cover pool and ensure that holders of covered bonds and derivative counterparties receive agreed and timely payments. Public administration or insolvency does not in itself give holders of covered bonds and derivative counterparties the right to accelerate their claims. Should it not be possible to make contractual payments when claims fall due, and an imminent change is unlikely, the liquidator shall introduce a halt to payments.

The covered bond owners and derivative counterparties have an exclusive, equal and proportionate preferential claim over the cover pool, and the administrator is bound to assure timely payment, provided the pool gives full coverage to the said claims.

The preferential claim also applies to payments that accrue to the institution from the cover pool. As long as they receive timely payments, the creditors do not have the right to declare that the issuer must be placed under public administration. Details about this issue may be reflected in the individual agreements between the issuer and (the trustee of) the bondholders. These provisions will also apply to any netting agreements between the institution and its counterparties in derivative transactions.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation fulfils and is in compliance with the relevant EU legislation, i.e. the Capital Requirements Regulation (CRR) and Article 52 (4) UCITS.[1] Hence, Norwegian covered bonds are eligible for reduced (10%) risk-weighting under the standard method for capital adequacy requirement. They are also eligible as collateral in the ECB and qualify as liquid assets under the Liquidity Coverage Ratio (LCR) given fulfilment of the specific criteria defined in the Delegated Act.

The issuers are licensed credit institutions under supervision of the Norwegian FSA, and as such they are bound to comply with all relevant single market directives and regulations applicable to European credit institutions. Pending the inclusion of relevant newer EU regulations in the EEA-agreement with the EU, Norwegian authorities have implemented the necessary provisions directly into Norwegian legislation.

X. ADDITIONAL INFORMATION

Legislation supplementing the covered bond legislation

The legal framework regulating the housing market provide legal certainty and foreseeability for both consumers as borrowers and owners of housing, and for credit institutions as lenders and creditors. This includes specific consumer protection legislation, a centralised electronic registry system for the ownership of and rights (mortgage, etc.) regarding real estate, and an effective and expedient forced sale procedure.

The Act on Financial Contracts and Financial Assignments (The Financial Contracts Act – Act 1999-06-25 no. 46) regulates the contractual conditions in respect of a loan agreement between financial institutions and their customers, both consumers and corporate clients. The act applies in principle to all types of loans, whether it is secured or not. The act is invariable in respect of consumer contracts, i.e. it cannot be dispended by an agreement that is disadvantageous to the customer.

The Mortgage Act (Act of 8 February 1980 no.2) regulates mortgages secured by real property. Ownership and special rights in real property may be mortgaged under the provisions set out in Chapter 2 of the Act, cf. section 2-1. Unless otherwise agreed, real property mortgage comprises the land, houses and building that the mortgagor owns and accessories and rights as set out in law, cf. section 2-2. A mortgage may also be established on a lease of land or an owner section in a building/freehold apartment, cf. section 2-3 and section 2-4. Mortgage rights acquire legal protection by registration in the Land Registry/Register of Deeds.

The Forced Sales Act (Act of 26 June 1992 no.86) provides for an effective and expedient forced sale procedure. A lender may, if a loan is accelerated and the borrower fails to pay any due amount, file an application before the county court for a forced sale of the property that backs the mortgage loan, cf. section 4-4 of the Forced Sales Act. The registered mortgage contract will itself constitute the basis for such application, cf. section 11-2 and 12-2. There is no need for additional judgment by the court to provide such basis for a forced sale.

Temporary mortgage regulation extended

Due to the authorities concern regarding housing prices and its correlation with household debt, the Ministry of Finance introduced a regulation on requirements for new residential mortgage loans in 2015. The goal of the regulation is to ensure a sustainable development in household debt. The regulation is temporary and have

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

been assessed on several occasions since its introduction. The current regulation is in force until 31 December 2020. It consists of the following requirements:

> Loan-to-value (LTV) requirement of maximum 85%

> Stress test: Households must be able to service their debt in the event of a five percentage points increase in mortgage rates

> Maximum debt-to-income (DTI) ratio requirement of five times gross annual income

> A minimum principal payment requirement (2.5%) if the LTV ratio exceed 60%

> Interest-only periods on mortgages and home equity lines of credit may only be granted when LTV is below 60%

> Flexibility quota: Up to 10% of the value of new loans can deviate from one or more of the requirements in each quarter

> For mortgages located in Oslo, the deviation limit is set to 8% of the value of new loans each quarter. In addition, there is an LTV requirement of maximum 60% for secondary homes in Oslo.

Note that due to the Corona situation the MoF has amended the regulation in the following way:

> The flexibility quota is raised to 20%.

> Specified that the temporary measures already in the regulation implies that banks can allow for post-ponement of interest and installments up to 6 months.

> The amendments apply for Q2 2020 but may be extended.

Register on unsecured debt

In 2019 the Debt Information Act entered into force. The Act requires that banks and other financing companies report information on consumer loans and credit card debt to central debt registers. Banks can now access these registers and receive updated information on a borrowers' consumer debt, and hence receive a complete picture of a borrowers' debt situations.

Market overview and additional information

According to Finance Norway's covered bond figures, a total of approximately EUR 21.3 bn. of covered bonds was issued in 2019. The total level of outstanding bonds is close to EUR 125 bn. 44% of the outstanding bonds are denominated in NOK, 50% in EUR, and the remaining 6% in other foreign currencies.

Since the start of 2018 a total of 5 Norwegian issuers have issued green covered bonds based on residential mortgages. Issuances have been done in NOK, SEK and EUR with a total outstanding volume of approximately 4 bn. EUR at year-end 2019.

More information and additional data are available on Finance Norway's webpage:
www.finansnorge.no/en/

Issuers: Bustadkreditt Sogn og Fjordane AS, DNB Boligkreditt AS, Eiendomskreditt AS, Eika Boligkreditt AS, Fana Sparebank Boligkreditt AS, Gjensidige Bank Boligkreditt AS, Helgeland Boligkreditt AS, KLP Boligkreditt AS, KLP Kommunekreditt AS, Landkreditt Boligkreditt AS, Møre Boligkreditt AS, Nordea Eiendomskreditt AS, OBOS Boligkreditt AS, Sandnes Sparebank Boligkreditt AS, Sbanken Boligkreditt AS, SpareBank 1 Boligkreditt AS, SpareBank 1 Næringskreditt AS, Sparebanken Sør Boligkreditt AS, Sparebanken Vest Boligkreditt AS, Sparebanken Øst Boligkreditt AS, SR-Boligkreditt AS, Storebrand Boligkreditt AS, Toten Sparebank Boligkreditt AS, Verd Boligkreditt AS.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/75/Norwegian_Covered_Bonds

COVERED BOND · LABEL · : DNB Boligkreditt AS (1 pool), Nordea Eiendomskreditt AS (1 pool), SpareBank 1 Boligkreditt (1 pool), Eika Boligkreditt AS (1 pool), SR-Boligkreditt (1 pool), Møre Boligkreditt AS (1 pool), Sparebanken Sør Boligkreditt AS (1 pool), Sparebanken Vest Boligkreditt (1 pool).

3.28 PANAMA

By Frank Will, HSBC & Chairman of the EU Legislation Working Group

I. FRAMEWORK

In September 2012, Global Bank became the first issuer of covered bonds out of Panama. It was also Latin America's inaugural covered bond. The USD 200mn deal was issued under Global Bank's USD 500mn Residential Mortgage Loans Covered Bond Programme and was later increased by USD 100mn. Following a partial buyback in September 2016, the bond matured in October 2017.

The second Panamanian covered bond issuer is Banco La Hipotecaria which issued its first USD 11mn covered bond in December 2018. Two more covered bonds with a total size of USD 41mn were issued in 2019.

Panama currently does not have a specific legal framework for covered bonds. Thus, Panamanian covered bonds are based on contractual agreements and the programme characteristics are self-imposed. Similar to the structures used in other markets without a specific covered bond law, many programme features are derived from securitisation techniques. Please note that our country analysis is based on the only available covered bond programmes in Panama to date, i.e. the ones from Global Bank and Banco La Hipotecaria.

II. STRUCTURE OF THE ISSUER

In the absence of a specific covered bond law in Panama, the Panamanian issuers used certain securitisation techniques and contractual law to replicate the key features of specific law based covered bonds and to ensure that the cover pool is isolated in the event of issuer insolvency. The covered bonds represent direct unconditional and unsubordinated obligations of the issuer and rank pari passu among themselves. The covered bond programmes foresee a separate cover pool of Panamanian residential mortgage assets that is transferred to a guaranty trust. The covered bond holders have a priority claim on these assets.

III. COVER ASSETS

Given the lack of a Panamanian covered bond law, we focus below on the asset requirements of the covered bond programmes of the two banks which bear a strong resemblance but differ in the detail.

Under Global Bank's covered bond programme, the covered bonds are backed by a dynamic pool of first-ranking residential mortgage loans originated in Panama, subject to the following eligibility criteria:

> The loans must be denominated in USD;

> The mortgage borrowers must be individuals resident in Panama;

> Each loan is secured by a valid and enforceable mortgage or by a guaranty trust, in accordance with Panamanian Law over a fully completed residential property located in Panama;

> With respect to any loan, there are no other loans secured by mortgages or by a guaranty trust ranking pari passu or senior with the mortgage or guaranty trust securing such loan (if there are other loans secured by mortgages or by a guaranty trust and ranking pari passu or senior with the mortgage or guaranty trust securing such loan, such loans have also been originated by the issuer and are included in the portfolio);

> No loan has a current principal balance of more than USD 500,000;

> Each loan has a remaining term of no longer than 30 years; and,

> No loan that has been transferred to the guarantee trust has been more than 90 days in arrears during the calendar year preceding the transfer date.

The aggregate principal amount of substitution assets (and/or authorised investments) may not at any time exceed 20% of the aggregate principal balance of the Guaranty Trust Assets.

The cover pool assets of the Banco La Hipotecaria are subject to the following eligibility criteria:

> The mortgage loans must be for purchases of owner occupied homes, with debtors being residents of Panama;

> Mortgage payments of the debtor have to be less than 35% of the gross family income and the complete debt service less than 55% of the income;

> The principal balance is more than USD 2,000 and less than USD 150,000;

> The property has to be insured against fire or other damages, with the insurance covering at least 80% of the property value; and,

> The debtor has to have a life insurance covering the principal balance.

The issuer has the right to replace the mortgage loans in the cover pool as long as the cover asset requirements are met.

IV. VALUATION AND LTV CRITERIA

In Global Bank's covered bond programme, the maximum permitted LTV is 100%. For non-preferential first lien mortgages the LTV caps are lower (95% for employed borrowers, 85% for self-employed and 70% for foreign borrowers). The Asset Coverage Test does not give any credit to mortgage loans more than 90 days past due. The maximum asset percentage is set at 84.4%.

For Banco La Hipotecaria, the maximum permitted LTV is 98% of the original purchase price for a new acquisition and 85% for the refinancing of existing mortgage loans. Mortgage loans issued by Banco La Hipotecaria itself may have an LTV up to 99%, but only under certain restrictive conditions.

V. ASSET – LIABILITY MANAGEMENT

Global Bank's covered bond features several tests including an Asset Coverage Test, an Interest Shortfall Test, a Yield Shortfall Test and an Amortisation Test.

> **Asset Coverage Test:** The Asset Coverage Test is breached if, on any calculation date prior to the occurrence of an issuer event of default and the service of a notice to pay on the guaranty trustee, the adjusted aggregate loan amount is less than the aggregate principal amount outstanding of the covered bonds.

> **Interest Shortfall Test:** The Interest Shortfall Test is breached when, on any calculation date prior to the occurrence of an issuer event of default and service of a notice to pay on the guaranty trustee, the income received with respect to the guaranty trust assets (including interest received or amounts received on hedging instruments) during the calculation period plus other available amounts (representing interest) is less than the interest amounts expected to accrue under the covered bonds during the next succeeding guaranty trust payment period.

> **Yield Shortfall Test:** The Yield Shortfall Test is breached when, on any calculation date following an issuer event of default and service of a notice to pay on the guaranty trustee, interest amounts under the loans and other amounts (representing interest) received by the guaranty trustee in respect of the guaranty trust assets during the calculation period cease to give a yield on the loans at least equal to the weighted average interest rate on the outstanding series of covered bonds.

> **Amortisation Test:** The Amortisation Test is breached if, for so long as any covered bonds remain outstanding upon the occurrence of an issuer event of default and on any calculation date following the occurrence of an issuer event of default and the service of a notice to pay on the guaranty trustee (but prior to the service of a guaranty trust acceleration notice), the amortisation test aggregate loan amount is less than the aggregate principal amount outstanding of the covered bonds as at the determination date.

The issuer can issue covered bonds in hard-bullet or soft-bullet format. In case of soft-bullet bonds, the outstanding covered bonds' maturity will automatically be extended by up to 12 months if the issuer fails to fully redeem a series.

The programme of Banco La Hipotecaria has the following key requirements:

> The Coverage Ratio is greater than or equal to 125%;
> The Liquidation Coverage Ratio is greater than or equal to 100%;
> The Gross Weighted Average Interest Rate Ratio is greater than or equal to the sum of (i) the Outstanding Covered Bonds Weighted Average Interest Rate and (ii) 0.5%;
> The Net Weighted Average Interest Rate Ratio is greater than or equal to the greater of (i) the Outstanding Covered Bonds Weighted Average Interest Rate minus 3.5% and (ii) 1.0%;
> The Percentage of Preferential Interest Rate Mortgages Ratio is less than or equal to 80%;
> The Weighted Average Loan to Value Ratio is less than or equal to 88%;
> The Weighted Average Maturity Ratio is less than 342 months;
> The Weighted Average Seasoning Ratio is greater than or equal to 18 months; and,
> No mortgage loan is in default more than 90 days.

VI. TRANSPARENCY

Global Bank's prospectus requires the bank to prepare a monthly investor report listing selected statistical information in relation to the underlying portfolio and the characteristics of the portfolio as well as confirming compliance with the Asset Coverage Test. The issuer provides comprehensive information on the borrowers (income brackets, employment type, life insurance), delinquency rates, fire & earthquake insurance of the properties, loan-to-value ratios by brackets and charged interest rates. The Banco La Hipotecaria publishes monthly servicer and pool data reports covering the same information, which are validated by the asset monitor with respect to all pool ratio requirements.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

In the absence of a legal framework defining the monitoring requirements for the cover assets, both covered bond issuers defined their own monitoring frameworks. Both issuers appoint an "asset monitor" that monitors the loans in the cover pool and validates the information and periodic reports published by the issuer with regards to the tests and criteria that are described above, as well as arithmetic accuracy. Failure to pass the tests or to satisfy the requirements leads to the issuer being obligated to immediately transfer substitute assets or other remedial means until compliance is established again. Failure to do so would lead to a prohibition of the issuing of further covered bonds or even an issuer event of default.

VIII. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The covered bonds are neither Article 52(4) UCITS-compliant nor Article 129 CRR-compliant as Panama is not a Member State of the European Union (EU). In addition, Panama does not have national covered bond legislation. Therefore, the covered bonds do not benefit from a preferred risk-weighting for regulatory capital purposes under EU rules. Under the Standardised Approach, they are treated similarly to senior unsecured bank debt.

As Panama is neither a European Economic Area (EEA) country nor a G10 country, Panamanian covered bonds are not eligible for the ECB repo operations regardless of their currency and their rating.

Issuers: Global Bank Corp (Panama).

3.29 POLAND

By Agnieszka Tułodziecka, Polish Mortgage Credit Foundation, Krzysztof Dubejko, mBank Hipoteczny
and Daniel Goska, PKO Bank Hipoteczny

I. FRAMEWORK

The legal framework for covered bonds (Listy Zastawne, also LZ) is mainly determined by:

> The Act on Covered Bonds and Mortgage Banks (*Ustawa o listach zastawnych i bankach hipotecznych*) of August 29, 1997; (The List Zastawny Act – hereafter: The LZ Act).

> The Bankruptcy Law (*Prawo upadłościowe*) of February 28, 2003, Chapter II – Bankruptcy proceedings for mortgage banks, Article 442–450.

In 2014, key under-law regulations for mortgage banks were amended:

> Recommendation F – the standards for determining mortgage-lending value were eased.

> Recommendation K – the rules on keeping and managing cover registers were actualised.

Both recommendations were to be implemented by 1 January 2015.

In 2015 the LZ Act has been thoroughly updated in order to increase the safety of the covered bonds and their availability to investors with new provisions coming into force as of 1 January 2016. Among the key modifications were: introduction of statutory overcollateralisation and liquidity buffer and increase of funding limit for residential loans as well as implementation of soft bullet and conditional pass through structure upon insolvency.

In 2015, new *Regulation of the Minister of Finance of 30 December 2015 on conducting the collateralisation review and coverage and liquidity tests* were issued.

Additionally, in 2015, further amendments were introduced to Recommendation K.

II. STRUCTURE OF THE ISSUER

The issuer is a specialised credit institution (mortgage bank) with the supervision of Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*, KNF). It is required by law that the mortgage bank is a joint stock company with a legal personality (not a branch) with two licenses: a banking license and consent to start operating activity, both granted by the KNF.

The additional covered bond issuer is Poland's only state-owned bank, Bank Gospodarstwa Krajowego (BGK), which may issue covered bonds to finance in particular government programmes. However, there have been no issues of BGK so far.

According to the LZ Act, a mortgage bank is limited in its range of business activities, i.e. it may only engage in activities specified in a closed catalogue. The operations of a mortgage bank can be divided into two groups: core and non-core, and may be also executed in foreign currencies.

The core operations which may be performed by mortgage banks include:

> Granting loans secured with mortgages;

> Granting loans where the borrower, guarantor or underwriter of a loan repayment is the National Bank of Poland, European Central Bank (ECB), governments or central banks of the European Union (EU) member states, Organisation for Economic Cooperation and Development (OECD), or where a guarantee or security is granted by the State Treasury;

> Acquisition of other banks' receivables on account of loans granted by them;

> Issuing mortgage covered bonds;

> Issuing public sector covered bonds.

Apart from core operations, mortgage bank's approved activities comprise: taking credits and loans, issuing bonds, securities safekeeping, providing consulting and advice with respect to the property market, managing receivables of a mortgage bank and other banks arising from mortgage-backed loans, as well as granting such loans on behalf of other banks on the basis of relevant cooperation agreements.

A mortgage bank is not authorised to perform any other activities apart from the operations listed above. Particularly, it cannot accept deposits. Such limitations facilitate maintaining a more simplified and clearer activity structure and the specialisation of the loan division as well as the improvement of credit risk assessment methods in the field of real estate financing. Furthermore, funds obtained from covered bond issues shall be used mainly for funding the lending activity of a mortgage bank.

III. COVER ASSETS

Mortgage banks in Poland focus on mortgage or public sector lending. The loans are held on the balance sheet of the issuer and registered in two separate cover registers, which form two separate cover pools.

There are two specific classes of covered bonds which correspond to each of the cover assets:

> hipoteczne listy zastawne (mortgage covered bonds) and

> publiczne listy zastawne (public sector covered bonds).

Both mortgage and public sector covered bonds are direct and unconditional obligations of the issuer and must be fully secured by cover assets of the respective class. Upon the issuer's default, covered bondholders have a dual recourse to a segregated cover pool of assets and, if the cover pool proves to be not sufficient, an unsecured claim against the issuer. Furthermore, the covered bondholders benefit from a statutory priority claim over all the assets in the cover pool. There is no time subordination: all covered bonds are ranked *pari passu*.

Pursuant to the LZ Act, the substitution assets can be included in the cover pool i.e. they may consist of the bank's funds invested in the securities issued or guaranteed by the National Bank of Poland, ECB, governments or central banks of the EU Member States, OECD (with the exclusion of states which are, or were, restructuring their foreign debt in the last 5 years), and the State Treasury, deposited at the National Bank of Poland or kept in cash. However, the total nominal amounts of the mortgage bank's claims secured with a mortgage or based on the public sector claims, constituting a basis for the issue of mortgage covered bonds, may not be less than 85% of the total amount of nominal value of outstanding covered bonds.

All hedging derivatives are eligible for the cover pool (the bank can conclude only hedging derivatives). Settlement amounts due under such contracts and included into the cover pool rank pari passu with claims of covered bondholders.

In addition, receivables secured by mortgages established on buildings, which are in the construction process, may not in total exceed 10% of the overall value of mortgage-secured receivables in the cover pool. Within this limit, the receivables secured by mortgages on construction lots in compliance with the land-use plan may not exceed 10.

IV. VALUATION AND LTV CRITERIA

The property valuation in a mortgage bank is conducted under the rules stipulated in the LZ Act. According to the Polish covered bond legislation, establishing the mortgage lending value of the property shall be performed with due care and diligence on the basis of an expert's opinion. It shall be prepared by the mortgage bank or other entities with appropriate real estate appraisal qualifications commissioned by the mortgage bank. The mortgage lending value cannot be higher than the market value of the property.

Apart from the assumptions laid down in the LZ Act concerning property valuation in a mortgage bank, there are special banking supervisory regulations (Recommendation F), which stipulate in detail the establishment of the mortgage lending value and impose a duty on a bank to have a database for real estate prices.

The funding limit – related to a single loan – is established at the level of 60% of the mortgage lending value of the commercial property and of 80% in the case of residential property (Article 14 LZ Act). In the part above 60% of the mortgage lending value of the property, the total amount of receivables from granting credits secured with mortgages or receivables purchased from other banks arising from their mortgage-secured credits, may not exceed 30% of the total amount of the mortgage bank's receivables secured with mortgages (absolute portfolio limit, Article 13.1 LZ Act).

Apart from funding limit, there is also lending limit, according to Article 13.2 LZ Act, stipulating that single loans granted or purchased by a mortgage bank cannot exceed the mortgage lending value of the property.

V. ASSET-LIABILITY MANAGEMENT

According to the LZ Act (Article 18), the total nominal value of all outstanding covered bonds (which should be calculated separately for each class) shall not exceed the sum of nominal amounts of (either mortgage or public sector) covered assets, which form the basis for the covered bond issue. Since January 2016, the ongoing cover principle is more prudent, including 10% mandatory overcollateralisation. That would apply to both public and mortgage covered bonds, the overcollateralisation is calculated on nominal basis regarding the capital amount of outstanding covered bonds. Additionally, part of the cover pool would be compulsory composed of liquid assets (e.g. central bank eligible bonds), in order to ensure preparation of liquidity buffer, not being a base for the covered bond issue. It is assumed that the value of these liquid assets (liquidity buffer) would ensure full and timely payment of the interest on the covered bond due in the upcoming 6 months.

Thus, the nominal value of respective covered assets shall permanently be higher than the total nominal value of the respective covered bonds. In addition, the mortgage bank's income from interest on its respective cover assets may not be lower than the amount of bank's payable interest on its respective outstanding covered bonds.

VI. TRANSPARENCY

Cover pool transparency reports for individual banks are available at their respective websites (see below). All four Polish mortgage banks are holding the Covered Bond Label and publish their reports following the Harmonized Transparency Template.

The majority of Polish covered bonds (public sector and mortgage covered bonds, the latter denominated in PLN as well as in EUR) are listed on the Catalyst, a local bond market operated by WSE and BondSpot. Covered bonds denominated in EUR are also listed on the Luxembourg Stock Exchange.

Both markets are supervised by the Polish Financial Services Authority and are approved as regulated markets by the European Securities and Markets Authority (http://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_mifid_rma).

Issuers, whose securities are listed on the regulated market, are legally bound to provide actual and potential investors with all and any information about their company's economic situation and events which may have an effect on investment risk. Consequently, mortgage banks are obliged to submit disclosures in the form of current and periodic reports, including information on subscription, assigned rating or interest payment dates of covered bonds.

Issuance documents such as Base Prospectus and Supplements for individual series comprising detailed information on the covered bonds as well as the issuer can be found on the issuers' websites:
mBank Hipoteczny: http://mhipoteczny.pl/en/investor-relations/
Pekao Bank Hipoteczny: http://www.pekaobh.pl/
PKO BP Bank Hipoteczny: https://www.pkobh.pl/en/
ING Bank Hipoteczny: https://en.inghipoteczny.pl/inghipoteczny-en/investor-relations

VII. COVER POOL MONITOR AND BANKING SUPERVISION

One of the key features of Polish covered bond legislation (Article 31 LZ Act) is the monitoring role undertaken by the covered pool monitor (*powiernik*) who is appointed by KNF at the request of the mortgage bank's supervisory board. The cover pool monitor is independent and shall not be bound by instructions of the appointing body.

The cover pool monitor is responsible for an ongoing control of the appropriateness of the cover pool management. Its main tasks comprise monitoring of the cover pool (i.e. confirming the accuracy of the inclusion in or removal from the cover register of the cover assets, ensuring that the asset eligibility requirements are met, verifying the correctness of the value registered in the cover pool, etc.) as well as the issuer's compliance with specific provisions of the LZ Act and reporting any breaches of them to the KNF.

The cover pool monitor is required to perform above mentioned tasks not only on an ongoing basis, but also prior to every issuance of a mortgage bank in order to ensure that a mortgage bank provides an appropriate cover for the planned issue. The issuer is obliged to provide full cooperation to the cover pool monitor and shall give the cover pool monitor the right to review the register, loan documents, accounting books or other bank's documents at its request.

Apart from cover pool's management monitoring performed by the cover pool monitor, mortgage banks fall under the oversight of the KNF which carries out general assessment of Polish banks, including mortgage banks as a part of general banking supervision.

The KNF may commission an independent expert at the expense of the inspected mortgage bank to inspection of the appropriateness of the mortgage bank's entries to the mortgage cover register. This would also include establishing the mortgage lending value of the property was in compliance with the rules referred to in Article 22, paragraph 5 LZ Act.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Pursuant to the LZ Act and the Bankruptcy Law (which is complementary to the former in terms of the insolvency issues, containing a separate chapter: Chapter II – Bankruptcy proceedings for mortgage banks – Articles 442-450), in case of bankruptcy of a mortgage bank the receivables, claims and means entered in the cover register shall constitute a separate bankruptcy estate which may be used exclusively to satisfy claims of covered bondholders. Moreover, initiation of the insolvency proceedings does not affect *listy zastawne*, i.e. they do not automatically accelerate when the issuer becomes insolvent.

After declaring a bankruptcy of the mortgage bank, the court appoints the curator (*kurator*) who represents the rights of covered bondholders in the bankruptcy proceedings and notifies the total nominal value of outstanding covered bonds together with accrued interest to the bankruptcy estate. In order to perform these duties, the curator has the right to review the accounting books and other documents of the mortgage bank as well as to obtain all the necessary information from the receiver (*syndyk*), court supervisor (*nadzorca sądowy*) and administrator (*zarządca*).

The curator participates in the liquidation of a separate bankruptcy estate, performed by the receiver. If possible, the items of such estate may be sold to another mortgage bank. While maturities of covered bond principal are postponed automatically by 1 year further, during this period all interest payments are executed pursuant to the terms and conditions of the L.Z. The aim of that solution is to support the timely payment of covered bonds, if a mortgage bank goes insolvent. Additional amendments to the law on bankruptcy include the introduction of the asset coverage test, which verifies whether the separate insolvency estate is sufficient to fully satisfy the claims of the bondholders, as well as the liquidity test, which verifies whether the separate insolvency estate is sufficient to fully satisfy the claims of the covered bondholders on the extended redemption dates. These tests are conducted also during regular activity of the mortgage bank.

With a separate bankruptcy estate, the following categories should be satisfied successively:

> Liquidation costs of the separate bankruptcy estate, which also include the remuneration of the curator, as well as interest and other covered bonds receivables;

> Covered bonds as per their nominal value.

The Polish model, introduced in January 2016, stipulates a statutory soft-bullet-structure in case of a mortgage bank insolvency, conditional pass-through payments, as well as detailed regulated scenario for insolvency procedure with clear competences and precise legal tools for action including over-indebtedness and liquidity tests. Transition into both soft bullet and conditional pass-through structures can only be triggered by legally specified events (insolvency and failed coverage tests) with limited decision rights in this respect granted to covered bond holders (possible resolution of covered bondholders with 2/3 majority to sell the separate bankruptcy asset pool to another bank).

After satisfying the covered bondholders the surplus of the cover assets deriving from the separate estate shall be allocated to the general bankruptcy estate. In case that the separate bankruptcy estate does not fully satisfy the cover bondholders, the remaining amount shall be satisfied from the whole bankruptcy estate funds. In that case, the remaining amount shall be transferred from the bankruptcy estate funds to the separate bankruptcy estate funds. It indicates that the covered bondholders are given preference over other creditors.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

In order to apply a preferential risk-weighting for covered bonds, the instrument needs to meet the criteria laid down in the UCITS Directive and the CRR.

Polish covered bonds (*list zastawny*) already meet the criteria of Article 52(4) UCITS: in December 2008 list zastawny was notified by the European Commission (EC) as a European "eligible bond" (covered bond), i.e. the instrument with a qualified collateral and can be found on the EC's website at present (http://ec.europa.eu/finance/investment/legal_texts/index_en.htm).

Polish covered bonds also fall under the criteria of Article 129(1) of the CRR[1]:

> Substitution assets, including liquidity buffer, comply with Article 129(1)(a-b) CRR;

> Derivatives included in the cover pool may comply with Article 129(1)(c) CRR, at issuer's discretion depending of credit quality of chosen counterparty;

> Residential real estate loans comply with Article 129(1)(d) CRR, LTV limit of 80%;

> Commercial real estate loans comply with Article 129(1)(f) CRR, LTV limit of 60%;

> Portfolio information is publicly available at least on semi-annual basis.

Following recent amendment of the LZ Act, foreign investors (both private and corporate) are exempt from withholding tax both in relation to coupons and principal amount.

PLN denominated *listy zastawne* are approved by the National Bank of Poland as the instruments eligible for intraday and lombard credit as well as repo transactions. As of June 2020, the haircut level for repo amounts to 18% for *listy zastawne* up to 7 years remaining to maturity. The haircuts for intraday and lombard credit are 13.5% – 33% (depending on maturity), same as for corporate and municipal debt.

EUR denominated *listy zastawne* issued under international covered bond programmes, which are eligible for Eurosystem credit operations, but are not eligible for the CBPP.

1 For further information on the UCITS Directive and the Capital Requirements Regulation (CRR) please see: https://hypo.org/ecbc/covered-bonds/.

Polish investment regulations pertaining to investment limits for covered bonds are as follows:

> Banks – no statutory limits, internal concentration limits apply, high-quality liquid asset status depending on outstanding issue amount and rating;

> Credit Unions – up to 8% of assets per issuer;

> Insurance companies – aggregate limit up to 40% (publicly traded) or up to 10% (not admitted to trading) of technical-insurance reserves;

> Investment funds – 25% of assets under management (AuM) limit for covered bonds per issuer or group, 35% of AuM limit for total exposure per mortgage bank or group (incl. deposits, unsecured debt and OTC derivatives), 80% of AuM limit for all covered bonds in portfolio;

> Pension funds up to 40% of the total asset value, 5% per one issuer or issuer's group.

Issuers: mBank Hipoteczny S.A., Pekao Bank Hipoteczny S.A. and PKO Bank Hipoteczny S.A.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/77/Polish_Covered_Bonds

COVERED BOND LABEL : PKO Bank Hipoteczny Spółka Akcyjna (1 pool), mBank Hipoteczny S.A. (1 pool), Pekao Bank Hipoteczny SA (2 pools).

3.30 PORTUGAL

By Cláudio Domingues, Banco Comercial Português

I. FRAMEWORK

The Portuguese covered bond legislation consists of the Decree-law n.º 59/2006 complemented by secondary legislation comprising regulatory instruments published by the Bank of Portugal (*Avisos* and *Instruções*)[1], addressing matters such as asset segregation, asset and liability management, risk and use of derivatives, property valuation requirements, as well as counterparty and cover asset eligibility criteria. Legislation governs both *Obrigações Hipotecárias* (OH) and *Obrigações Sobre o Sector Público* (OSP), which are covered bonds backed by loans secured by mortgages on real estate property ("mortgage loans") or loans to, or guaranteed by, central government, regional or local authorities ("public sector loans"), respectively.

II. STRUCTURE OF THE ISSUER

Portuguese covered bonds can only be issued by credit institutions authorised to grant mortgage loans and with own funds of no less than EUR 7.5mn. Apart from banking institutions, legislation also allows issuance by specially-designated mortgage credit institutions (*Instituições de Crédito Imobiliário* or ICIs), whose business activity is limited to granting mortgage or public sector loans, for the sole purpose of issuing either OHs or OSPs.

Covered bonds issued by banking institutions are backed by eligible cover assets that remain on the issuer's balance sheet, effectively segregated from any future insolvent state ("cover pool"). There are no examples of covered bonds issued by an ICI, which can be either an independent entity or a fully-owned subsidiary of an existing credit institution.

III. COVER ASSETS

Mortgage or public sector loans are the only credits eligible to form part of cover pools. Mortgage loans must be either first *lien* mortgages, over either commercial or residential real estate property, or lower-ranking mortgage loans over the same property, provided all the associated higher-ranking mortgages form part of the same cover pool. The aggregated loan amounts secured on mortgages over the same property cannot present a loan-to-value (LTV) greater than the legal maximum of 80%, in the case of residential mortgages, or 60%, in case of commercial mortgages. Mortgaged properties must be located in an EU Member State, whereas public sector loans must be granted to, or guaranteed by, a central government, regional or local authority of an EU Member State. Loans should bear no delinquency upon assignment to the cover pool and must be removed so as to ensure no loans with more than 90 days delinquency are ever part of it.

In addition to credits, covered bond legislation allows for other assets ("substitution assets") up to 20% of the cover pool's nominal value. These can either be:

> Deposits in the Bank of Portugal, in either cash or securities eligible for Eurosystem operations; or

> Deposits in credit institutions rated at least "A-"; or

> Other low-risk and high-quality assets, as determined by the Bank of Portugal.

Substitution assets are nonetheless subject to Bank of Portugal's regulation that establishes the cover pool maximum aggregated exposure to other credit institutions, excluding exposures up to 100 days, cannot exceed 15% of the aggregate nominal value of the outstanding covered bonds.

Derivative contracts are permitted as part of the cover pool for, and only for, risk hedging purposes, namely interest rate, exchange rate and liquidity risk. Derivatives must be executed in a regulated market of an EU

1 Aviso n.º 5/2006, Aviso n.º 6/2006, Aviso n.º 8/2006, Instrução n.º 17/2018 (revoked n.º 21/2008, which in turn revoked n.º 7/2006), Instrução n.º 13/2006, Instrução n.º 3/2020 (revoked n.º 34/2018, which in turn revoked n.º 19/2005).

Member State in a legally established exchange of a full member of the OECD and entered into with a counterparty rated "A-" or above. Legal documentation should be standardised but must safeguard the preferential claim hedging counterparties share with covered bond holders. To hedge exchange rate risk, as in the case of a non-Euro issuance, exchange rate derivative contracts are mandatory.

The cover pool is dynamic while the originator is solvent, who carries the responsibility to replace with eligible assets those that cease to be so. Issuers are also required to maintain a record of all the assets in the cover pool, including derivative contracts.

IV. VALUATION AND LTV CRITERIA

Property valuation is regulated by a specific notice issued by the Bank of Portugal that lays down its fundamental principles, as well as specific rules and requirements. Accordingly, the underwriting valuation amount of mortgaged properties, meaning the property value considered during the credit decision and underwriting process, shall be its commercial value determined on a prudent basis, considering the property characteristics sustainable in the long term, normal local market conditions, based both on current and possible alternative uses. Such underwriting property value cannot be higher than its market valuation, defined as the price amount at which a property is expected to exchange, on the date of valuation, between a willing, knowledgeable and able buyer and seller, following proper and public marketing, executed within a reasonable time period considering the nature and type of the property, in a market presenting no abnormal obstacles to such transaction.

The property valuation shall be carried out by an independent, qualified and experienced property valuation expert, prior to the date the respective mortgage loan is assigned to the cover pool. Methodology should follow established approaches, such as the cost method, the income (yield) method, and the comparison method. Method choice should consider the property's specific characteristics as well as those of the local property market. The valuation should take the form of a written report including all methodological ele-ments and necessary conclusions.

The valuation amount must be verified at least every three years, in case of residential properties, or annually, in case of commercial properties. To this effect the credit institution can make use of established indexation methodologies, which are subject of a detailed explanatory report and an opinion by an independent property valuation expert submitted to the Bank of Portugal.

Notwithstanding, the valuation amount should be reviewed by an independent, qualified and experienced property valuation expert whenever there are indications the property's market value might have declined considerably. In the case of mortgage loan amounts greater EUR 500,000, if backed by residential property, or greater than EUR 1mn, in backed by commercial property (or, in any case, greater than 5% of the issuer's own funds), the underlying property value shall be reviewed by an independent valuer at least once every three years.

The valuation expert is deemed independent for as long as it is not in a position susceptible of affecting his otherwise unbiased judgement, namely if he has no specific interest in the property in question or any relationship, commercial or personal, with the borrower. Likewise, valuation won't be regarded as independent if compensation is somehow correlated with the property's valuation amount. Lastly, the valuation expert may belong to the issuer's organisation provided his action is fully independent from the credit underwriting process.

Regulation also dictates credit institutions should ensure proper diversification and rotation of property valuers. To that end they must keep an updated list of selected valuers, together with the criteria justifying such selection, as well as properties valued by these valuers. This list must be reported annually to the Bank of Portugal until the end of January each year, with reference to 31 December, indicating any changes from the last report.

Lastly and as stated above, the aggregated loan amounts secured on mortgages over the same property cannot present a loan-to-value (LTV) greater than the legal maximum of 80%, in the case of residential mortgages, or 60%, in case of commercial mortgages.

V. ASSET – LIABILITY MANAGEMENT

The Portuguese covered bond legislation addresses covered bond coverage and asset-liability mismatch by imposing the following requirements:

> the nominal value of mortgage covered bonds cannot exceed 95% of the cover pool's nominal value, considering both mortgage credits and eligible substitute assets, thus implying a legal minimum overcollateralisation of 5.26%;

> the average maturity of covered bonds can never exceed the average maturity of mortgage credits and eligible substitute assets;

> the net present value of covered bonds cannot exceed the cover pool's net present value, considering any derivative instruments in place; this needs to hold true with 200-basis-point upward and downward parallel shifts of the underlying yield curve.

For the purpose of the first coverage requirement above, legislation determines loans, deposits and covered bonds should be accounted by their nominal value plus accrued interest. Assets eligible for Eurosystem operations should be accounted by the lowest of its nominal value and that resulting from the relevant and applicable Eurosystem asset valuation rules, plus any accrued interest. ECB reference exchange rates apply whenever relevant.

Legislation also requires the total amount of interest payable to covered bond holders not to exceed the amount of interest collected from mortgage credits and eligible substitute assets. Loan collections not used in the purchase of new credits for cover pool replenishment can remain as substitute assets. Furthermore, issuers can contract a credit facility to provide for liquidity shortages, with counterparties with a minimum credit rating of "A-".

Issuers can use derivative contracts to hedge liquidity risk, as well as interest rate and exchange rate risk. These derivatives are specifically assigned to, and part of, the cover pool, and must be contracted with counterparties with a minimum rating of "A-". Hedging of exchange rate risk, when covered bonds and cover pool are in different currencies, is in fact compulsory. These counterparties will also benefit from the preferential claim over the cover pool alongside cover bond holders.

Part of the asset and liability management is ensuring all relevant legal requirements are met. Specifically, as soon as credit LTV ratios, or the above legal covered bond coverage and liquidity requirements, are not met, or there are indications they won't be, the issuer shall remedy the situation by assigning new mortgage credits, purchasing outstanding bonds in the secondary market or assigning other eligible substitute assets to the cover pool.

The Bank of Portugal establishes the terms whereby each issuer must deliver the specific and individual policies in written form for risk management, namely foreign exchange risk, liquidity risk, interest rate risk, counterparty risk and operational risk and any other procedures aimed at ensuring compliance with the applicable regulatory regime and with any devised risk limitation policies set by the issuer. It may also make use of its regulatory role to impose additional steps on this regard.

Covered bond legislation governs both mortgage covered bonds and public sector covered bonds, with essentially the same relevant requirements applying to both. Exception made for the nominal value of public sector covered bonds not exceeding 100% of the cover pool's nominal value, including eligible substitute assets.

VI. TRANSPARENCY

Portuguese covered bonds issuers ensure data consistency and transparency by adopting the European Covered Bond Label Harmonised Transparency Template ("HTT"). This template also includes the Common National Transparency Template, based on ICMA's Covered Bond Investor Council template.

The HTT templates are typically published on a quarterly basis both on the issuer's institutional website and on the Covered Bond Label website[2], complying with CRR information disclosure requirements and already essentially in line with relevant requirements of the recently approved Covered Bond Directive, which is now to be transposed into national legislation in due course.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Covered bond issuers must appoint a qualified independent auditor responsible for verifying compliance with all covered bond legal and regulatory requirements, in the best interests of covered bond holders – the "cover pool monitor". The cover pool monitor cannot therefore be in a susceptible position liable to affect their independent status, such as being closely associated or having more than 2% participation in the issuing entity, or having performed more than two consecutive mandates. The covered bond monitor will undertake an annual auditing exercise and produce a report indicating whether all legal and regulatory requirements are being observed. The issuer must submit that cover pool monitor report to the Bank of Portugal, who can then act upon any reservation or mention that might be deemed as cause of concern.

Without prejudice of the applicable provisions of the Portuguese Commercial Societies Code[3] (PCSC), the issuer must appoint a bondholders' common representative in order to represent the common best interests of bondholders, on both the issuer's mortgage or public sector covered bonds. The common representative can be an independent credit institution, or any other authorised entity based in the European Union, apart from those entities mentioned in the PCSC.

The Bank of Portugal and the Portuguese Securities Commission (CMVM) are responsible for banking and capital markets supervision. The law grants powers to the Bank of Portugal to regulate and supervise covered bond issuers. Issuers not complying with laws and regulations will be liable to fines and other sanctions and, ultimately, shall see their license to operate in the local banking and financial markets revoked.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Covered bond holders benefit from a special preferential claim (*privilégio creditório*) over all assets assigned to the cover pool for the redemption of due principal and interest. This preferential claim has precedence over that of any of the issuer's creditors, while mortgages that guarantee these credits prevail over any other real estate preferential claims. Portuguese covered bond legislation thus supersedes the national general bankruptcy regulation. This preferential claim is shared with the derivative counterparties whose contracts are part of the pool on a pari passu basis with bondholders. Consequently, their contracts are not expected to be called in case of insolvency of the originator.

In case of insolvency, dissolution or wind-up of the issuer ("insolvency event")[4], the covered bond legislation establishes the cover pool shall be segregated from the insolvency estate of the issuer and will not form part of it until the full payment of any amounts due to covered bond holders, as well as to derivative counterparties and the common representative. Also, all amounts corresponding to payments under any asset in the cover pool will not form part of the insolvency estate of the issuer.

An insolvency event does not trigger an automatic acceleration of the covered bonds. However, covered bond holders are entitled to pass a resolution approving the immediate acceleration of the covered bonds by a majority of at least two thirds of the votes of the holders of covered bonds then outstanding.

2 https://www.coveredbondlabel.com/issuers/national-information-detail/19/

3 Articles 355 and 359 of Código das Sociedades Comerciais

4 Under any applicable laws and regulations, including under Decree-Law No. 199/2006, Decree-Law No. 298/92, and/or (if applicable) under the Code for the Insolvency and Recovery of Companies introduced by Decree-Law No. 53/2004.

Upon an insolvency event the issuer presents a voluntary dissolution and wind-up plan to the Bank of Portugal[5] that will include the identification of the entity to undertake the management of the cover pool thenceforth ("cover pool administrator"). The cover pool administrator is thus appointed to (i) manage the cover pool allocated to the outstanding covered bonds and (ii) ensure that the payments of any amounts due to the holders of such covered bonds are made. This plan shall also describe the general framework and conditions under which those actions shall be taken. Otherwise, the Bank of Portugal can always revoke the issuer's licence to operate and appoint a cover pool administrator themselves.

The cover pool is then managed autonomously by the cover pool administrator, who should immediately prepare an opening balance sheet in relation to each autonomous portfolio and relevant bonds, supplemented by the necessary explanatory notes. It should perform all acts and deeds necessary for a sound management of the loan portfolio (and its guarantees) with the aim of ensuring a timely payment on the covered bonds. These may include selling credits, assuring servicing and all administrative procedures pertaining to these credits, managing relationship with the debtors, and undertake all modifying and extinguishing acts relating to their guarantees. The cover pool administrator must also carry out and keep updated a registry, in off-balance sheet accounts, the details of the cover pool in the terms set forth in the covered bond legislation.

On this premise the cover pool administrator shall provide for the liquidation of the cover pool for the benefit of covered bond holders and other cover pool preferential claimants, who will rank *pari passu* between them. If cover assets liquidation proceeds prove to be insufficient to make up for all due and payable amounts, for the remaining due amounts covered bond holders and derivative counterparties will rank *pari passu* with issuer's senior creditors in relation to all other the issuer's assets.

All assets such as mortgage loans, public sector loans and substitute assets, as well as derivative contracts assigned associated to covered bond programmes are held by the issuer in separated accounts ("cover register") and can be identified under a codified form. This information is deposited in the Bank of Portugal in the form of a code key. The Bank of Portugal regulates the terms and conditions by which the bondholders will have access to such key in case of an insolvency event.

The legal effect of this registration is to segregate those assets from the insolvent estate over which bondholders will have a special claim in case of an insolvency event. In this situation the assets pledged to one or more issues of mortgage bonds will be separated from the insolvent estate for the purpose of its autonomous management until full payments due to the bondholders have been met. Despite this, the law stipulates that timely payments of interest and reimbursements should continue. In that way, cover assets form a separate legal estate, a pool administered in favour of the covered bondholders and any other special claimant.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 CRR. Portuguese covered bonds meet the requirements of Article 129 CRR.

Credit institutions investing in covered bonds within the scope of the Portuguese jurisdiction qualifying under Article 129 of Regulation 575/2013 (CRR) can apply a 20% risk weighting. The risk-weighting of derivatives that are included in the cover pool will be 20%. Investment funds can invest a maximum of 25% of their own funds in a single issuer's covered bonds.

X. ADDITIONAL INFORMATION

The new European-wide covered bond legal framework, formed by the new Covered Bond Directive ("Directive") and a *corrigendum* to CRR's Article 129 ("Regulation"), had 2019 as its pivotal year. After negotiations between the different European official institutions, in close consultancy with market representatives such as

5 Pursuant to article 35-A of the Credit Institutions General Regime.

the ECBC, it was all approved by the European Parliament, ratified by the European Council and published in the Official Journal of the European Union, on the 18th December 2019. As a European-wide, principle-based, harmonisation exercise, it will affect each of the current domestic EU-Member States covered bond legislations, with Portugal being no exception. That much will become apparent over the 18-month transposition ending on 8 July 2021, after which Member States will have 12 months to make it enforceable.

The Portuguese legislation, however, covers almost all the essential principles and requirements of this new covered bond framework. Those that are not covered – such as the obligation of the covered bond programmes to have a dedicated 180-day liquidity buffer facility – are relatively easy to address and, according to some market agents, credit positive.

Issuers: NOVO BANCO, S.A., Banco BPI, S.A., Banco Comercial Português, S.A., Banco Santander Totta, S.A., Caixa Económica Montepio Geral, Caixa Geral Depósitos, S.A.

ECBC Covered Bond Comparative Database:
https://www.ecbc.eu/framework/39/Mortgage_CB_%28Obriga%C3%A7%C3%B5es_Hipotec%C3%A1rias%29
https://www.ecbc.eu/framework/38/Public_Sector_CB_%28Obriga%C3%A7%C3%B5es_sobre_o_Sector_P%C3%BAblico%29

Covered Bond Label : NOVO BANCO, S.A. (1 pool) , Banco BPI, S.A. (1 pool) , Banco Comercial Português, S.A. (1 pool), Banco Santander Totta, S.A. (1 pool), Caixa Económica Montepio Geral (1 pool), Caixa Geral Depósitos, S.A. (1 pool).

3.31 ROMANIA

By Romanian Association of Banks, Adrian-Stefan Sacalschi (Takarék Mortgage Bank) and Nicoleta Ruxandescu (Alpha Bank Romania)

I. FRAMEWORK

The Romanian Covered Bond Legislation includes Romanian Covered Bond Law no. 304/2015 ("CB Law") and Romanian Covered Bond Regulation No. 1/2016 ("CB Regulation") issued by the National Bank of Romania ("NBR"). The Romanian Covered Bond Legislation has been enacted with a view to, inter alia, provide a legal framework that is aligned with the best practices in this field at the European level and to ensure the development of the market for such instruments in a prudent and supervised manner.

Alpha Bank opened the covered bond market in Romania in April 2019 when it established its EUR 1 billion Global Covered Bond Program. The first issuance of EUR 200 million took place on May 16th, 2019. The issue is currently listed on the Luxembourg Stock Exchange and the Bucharest Stock Exchange.

II. STRUCTURE OF THE ISSUER

The issuer can only be a credit institution, as defined by the Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms, which falls under one of the following categories provided for in the Government Emergency Ordinance no. 99/2006 on Credit Institutions and Capital Adequacy, approved with amendments and supplements by Law. No. 227/2007, as amended and supplemented:

- banks,
- credit co-operative organisations, except for credit co-operatives, and
- mortgage banks.

The issuer must obtain an issuance approval from the National Bank of Romania (Art. 4 of the CB Law). The approval is valid for 15 months and within this timeframe and the approved issuance framework, the issuer has the possibility to make more subscription offers (Art. 7(2) of the CB regulation). The conditions for the approval of an issuance framework are set in art. 3-9 of the CB Regulation. The Central Bank is supervising the covered bond issuance activity for fulfilment of the prudential requirements.

Pursuant to the Covered Bond Law, the issuer holds the assets on its balance sheet. A direct legal link between single cover assets and covered bonds does not exist. All obligations from bonds are obligations of the issuing bank as a whole. In the event of insolvency, the cover pool is segregated by law from the general insolvency estate and is reserved for the claims of bondholders.

Asset servicing may be outsourced, but for covered bonds it is expressly regulated only in case of the issuer's bankruptcy.

The covered bonds are direct and unconditional obligations of the issuer. The claims of the holders of covered bonds are secured by a first rank security over the cover assets, which are segregated from the rest of the issuing bank's patrimony, in case of bankruptcy. Real estate receivables, eligible financial assets and financial derivatives securing the mortgage bonds are structured by the issuer into a single cover pool.

The CB Law imposes asset encumbrance limits: the total value of the cover pool cannot exceed 4%, 6% or 8% of the issuer's total assets, depending on the metrics defined by the National Bank of Romania, such as capital, liquidity, asset quality.

III. COVER ASSETS

The covered bonds issued under the CB Law can include mainly mortgage loans (i.e. residential or commercial mortgage loans) in the cover pool and, in a smaller proportion, eligible financial assets. The cover pool must be replenished with other mortgage loans if some of the pledged loans don't fulfil the eligibility criteria anymore.

Eligible financial assets (besides mortgage loans) will be used for the substitution of the assets included in the cover pool only if the issuer has no other mortgage loans that could be used for such purpose and only up to maximum 20% of the cover pool. The eligibility criteria for these assets are set forth in art. 30(1) of the CB Regulation.

The issuer can include in the cover pool, apart from real estate receivables and financial assets, financial derivatives, subject to conditions set out in art. 14 and art. 18 (8) of the Covered Bond Law. Derivatives can be included in the cover pool only for the purpose of hedging interest rate risk and foreign currency risk. Financial derivatives may be included in the cover pool only if the agreements related thereto do not contain a clause according to which the bankruptcy or the resolution of the issuer is deemed to be a termination event. The CB Regulation issued by the National Bank has further details in art. 31 on the conditions which have to be fulfilled by the derivatives included in the cover pool.

The CB Law stipulates at art. 18 that the mortgage loans must fulfil several eligibility criteria in order to be included in the cover pool:

> The funds under the mortgage loans have been made available in full to the beneficiaries of the respective loans;

> The mortgage loans have been granted for real estate investment purposes in Romania or in the European Union or European Economic Area member states, or for real estate investment purposes in third countries. However, in the latter case, the threshold of real estate receivables which can be included in the cover pool cannot exceed 10% of the real estate receivables included in the pool;

> The loans should not be subject to any mortgage or legal or contractual privilege;

> The rights in rem created to secure the repayment of the real estate receivables have been created solely in favor of the issuer;

> The mortgaged real estate must hold an all-risk insurance for an amount at least equal to the market value of the real estate as of the execution/renewal of the insurance policy, the rights under the insurance agreement have been assigned in favor of the issuer and the insurance has been maintained valid throughout the secured period of the mortgage bonds issues;

> At the time of its inclusion in the cover pool, each loan must not incur delayed payments, and subsequently, it should not record a delay in payment of more than 15 days while being part of the cover pool;

> The debtor under such loan must have been notified, pursuant to the provisions of art. 10 par. (1) of the CB Law, that the loan is to be included in the cover pool which will serve as security for the issuance of mortgage bonds;

> The debtor of the relevant loan has not notified the issuer that it maintains the right to claim compensation against the issuer (right to set-off the issuer), within 45 days of receipt of the notice above, according to art. 10 par (2) of the Law;

> Throughout their inclusion in the cover pool, the loans must comply with any potential additional eligibility conditions provided in the prospectus or, as applicable, in the offering document attesting the conditions of the issue.

> The cover pool shall include the mortgage loans for which the ratio, determined at the date each loan is granted, between the nominal value of each loan and the reference value of the immovable property serving as collateral does not exceed 80% for the residential real estate loans and 60% for other real estate loans.

> The value of loans secured with mortgages over land without buildings and of those secured with mortgages over immovable property under construction cannot exceed the threshold established by the CB Regulation, i.e. 10% of the accounting value of the cover pool.

> The accounting value of the loans against a single debtor (either separately or together with the claims of the Issuer against affiliated persons of the debtor), must not exceed 5% of the accounting value of the cover pool.

> Re-evaluation of immovable properties securing real estate receivables included in the cover pool is made in accordance with art. 208 par. (3) of the Regulation (EU) no. 575/2013.

> Financial derivatives may be included in the cover pool only if the agreements related thereto do not contain a clause according to which the bankruptcy or the resolution of the issuer is deemed to be a termination event.

> Issuers may establish additional eligibility conditions in their internal regulations, stricter than those specified in par. (1) to (8) of the CB Law and will be made public through the prospectus or, as applicable, are mentioned in the offering document attesting the conditions of the issue.

The CB Law stipulates that the cover pool is dynamic. The replacement/supplementation of the mortgage loans included in the cover pool is compulsory when certain mortgage loans no longer comply with the eligibility criteria, have become non-performing in the meaning of the CB Law, the weighted average maturity of the mortgage loans included in the cover pool decreases below the weighted average maturity of the corresponding covered bonds, or the value of the mortgage loans included in the pool declines below the thresholds provided by the CB Law (as required by art. 8, 13 and 16).

The value of the residential loans included in the cover pool cannot exceed 80% of the value of the issuer's total residential loans that are eligible for the cover pool. For commercial loans this ratio is 60%.

IV. VALUATION AND LTV CRITERIA

Property valuation is regulated and is required to be undertaken by an authorised real estate appraiser. Details about the valuation process and the qualifications of evaluators are regulated by the Romanian Association of Evaluators (ANEVAR).

Re-evaluation of immovable properties securing real estate receivables included in the cover pool is made in accordance with art. 208 par. (3) of the Regulation (EU) no. 575/2013. The asset monitor will check the fulfilment of this issuer's obligation.

V. ASSET – LIABILITY MANAGEMENT

The CB Law stipulates an asset coverage test, an overcollateralisation test, and a liquidity coverage test. Under the asset coverage test, the value of the cover pool must at all times exceed the value the bonds and any other obligations to be paid from the cover pool. In calculating the value of the cover pool, the receivables are weighted according to the lower of: the accounting value of that receivable; the value of the principal of that mortgage together with any previous mortgage rights; and 80% of the value of that mortgaged property, in the case of residential loans, or 60% of the value of that mortgaged property in the case of commercial loans.

Under the overcollateralisation test, the net present value of the outstanding assets must exceed at all times 102% of the net present value of the bonds (and other obligations that are paid from the cover pool). The overcollateralisation test is calculated under certain stress scenarios as well, where the net present value of assets must be at least 100% of the net present value of obligations. The stress tests include: shocking the yield curve (+/-) by 350 basis points, shocking the EUR-RON exchange rate (+/-) by 35.5%, stressing the level of arrears in the cover pool, taking into account a decrease in real estate prices and the loss given default in real estate enforcements.

Under the liquidity coverage test the issuer must calculate liquidity deficits that might arise over the following 180 days and cover them with liquid assets eligible for liquidity operations with NBR.

The liquidity coverage test is performed daily, while the overcollateralisation tests under stress scenarios are performed at least monthly.

VI. TRANSPARENCY

Issuers shall prepare and publish on their own websites quarterly reports, no later than the 15th day of the month following the end of the quarter for which they are drafted, as regards the risks related to the cover pool, the total volume of the issued mortgage bonds and the structure of the cover pool, including the nominal value of the receivables in the pool, their residual value and the structure of the maturities of the receivables in the pool.

In addition, the issuer shall make available on its website updated information from the cover pool registry, for each loan included in the cover pool and update it regularly.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Under the CB Law, the activity of a covered bond issuer is supervised by the NBR. As a mandatory pre-requisite for the issuance of mortgage bonds, an asset monitor (in Romanian "agent") must be appointed by the issuer, as independent auditor of the cover pool. The agent has to be authorised by the NBR.

The agent's main role is to monitor the cover pool, to certify the issuer's reports to NBR and to report its findings on the observance of the legal requirements to NBR. Its monitoring obligations shall be performed regularly, based on the documentation provided by the issuer. The agent has to observe the issuer's compliance with the law and prospectus requirements. Based on the documentation provided by the issuer, the agent shall issue a certificate attesting the issuer's compliance with the provisions of the law and with the prospectus regarding the cover pool structure.

A representative of the covered bondholders must be appointed by the bondholders in the first covered bondholders meeting, his role being to exercise, in its own name, but on the account of bond- holders, the bondholders' rights, except for the voting rights.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The issuer has the obligation to keep an internal cover register, which allows for the identification of the cover assets. Registration in the cover register reflects the structure and dynamic of the portfolio at any time throughout the life of the issue. The cover register shall have separate sections for each category of assets included in the cover pool, i.e. real estate receivables, eligible financial assets and derivatives. For each loan in the cover pool, the registry shall include at least the identification number and the value of the amount borrowed plus the interest to be received throughout the life of the loan, calculated at the origination date. The cover register is kept by the issuer and subject to checks by the agent.

Pursuant to the Romanian Covered Bond Legislation, the issuer is required to create a movable mortgage over the cover pool assets pursuant to the terms of a movable mortgage agreement to be attached to the base prospectus. The movable mortgage will be registered with the National Register in the name of the asset monitor (in Romanian, "*agent*"), but on behalf of the covered bondholders, prior to the offering of the covered bonds for subscription, by means of a global registration form. The movable mortgage will be transferred in the name of the covered bondholders' representative after its appointment by the general meeting of the covered bondholders. According to the Romanian Covered Bond Law, such movable mortgage is not required to be registered in the relevant land register of the immovable assets securing the loans.

Asset segregation

By registration of the movable mortgage over the cover assets and the entry into the internal cover register of the mortgage loans or other assets included in the cover pool, such assets are segregated from the other assets of the issuer. In case of issuer's bankruptcy, the segregation of the cover assets from the insolvent estate of the issuer is thus a consequence of the movable mortgage over the cover assets and the operation of the CB Law.

In order to fulfil all the obligations of the issuer towards bondholders under the CB Law the cover pool securing the mortgage bonds represents an autonomous estate, separate from the estate of the issuer subject to the liquidation procedure, and shall not be subject to any liquidation procedure of the issuer's assets. The sale-purchase agreements concluded in breach of these legal provisions are null and void (art. 48 of the CB Law).

In case of an event of default under the cover bonds programme, the NBR can appoint a cover pool administrator, acting under the NBR's supervision.

The Romanian Covered Bond Law also provides that, in case bankruptcy proceedings are initiated against the issuer, the syndic judge shall appoint, following consultations with the NBR, a cover pool administrator upon whose appointment the mandate of the cover pool administrator appointed by the NBR shall terminate by operation of law. At any stage of the bankruptcy proceedings, the syndic judge may replace the cover pool administrator for justified reasons, with the consent of or upon motion made by the NBR.

Upon appointment of the cover pool administrator, the elements of the cover pool, registered with the internal cover pool register and the amounts collected in relation to them by the issuer starting with the date of such an appointment, shall be under the exclusive control of the cover pool administrator.

For the purpose of satisfying the obligations towards bondholders in the amount and at the dates provided in the prospectus or, as applicable, in the offering document attesting the conditions of the issue and of the distribution of the amounts owed to them, the cover pool administrator may:

> continue to collect the amounts owed by the debtors of the cover pool, including by way of restructuring or enforcement of receivables in the event of default by the relevant debtors;

> transfer the obligations undertaken by the issuer to bondholders to another issuer, together with the related cover pool; and

> perform any other activities necessary for the satisfaction of the receivables included in the cover pool.

The cover pool administrator is bound to consult the NBR prior to committing to perform the following operations:

> postponement of mortgage bonds maturity;

> partial or total sale of the cover pool;

> procurement of new financing to cover the temporary liquidity deficit based on the cover pool securing the mortgage bonds; and

> acceleration of mortgage bond payments.

Preferential treatment of covered bond holders

According to Article 29(8) of the Romanian Covered Bond Law, no other creditor of the issuer may initiate enforcement procedures in relation to the cover pool or any part thereof before the covered bondholders.

Pursuant to the movable mortgage, the covered bondholders shall have the right to satisfy their claims against the issuer with priority over any other creditor, except the hedging counterparties under any financial derivative instruments included in the cover pool which shall rank *pari passu* with the covered bondholders. In addition, the Romanian Covered Bond Law provides that the cover pool administrator, the asset monitor, as well as lenders that have financed the issuer's temporary liquidity shortfall shall enjoy priority over the covered bondholders in satisfying their claims against the issuer with respect to the cover pool.

There are no specific regulations expressly addressing the issue of voluntary overcollateralisation in insolvency. It may be argued that voluntary overcollateralisation is part of the cover pool with all legal consequences regarding segregation in the event of bankruptcy applicable to the respective pool.

Sale and transfer of mortgage assets to other issuers

The cover pool administrator may in accordance with art. 46 and 47 of the CB Law propose to the approval of the general meeting of bondholders the acceleration of the payment of the mortgage bonds and, in this respect, the assignment of the receivables to a third party, that is permitted by law to grant mortgage loans as a professional activity.

The distribution of the amounts resulted from the assignment of receivables shall be made in the following order of preference:

- receivables representing expenses incurred by the pool manager with the sale, its remuneration and the remuneration of the trustee;
- receivables under the financing granted to the issuer with the view to covering the temporary liquidity deficit;
- receivables resulting from the holding of mortgage bonds, pro rata, irrespective of the seniority and maturity of the mortgage bonds issue and receivables held by counterparties under the agreements underlying the financial derivatives included in the cover pool; and
- receivables of the issuer's creditors, according to art. 49 par (3) of the CB Law, not paid in full upon the temporary closing of the bankruptcy proceedings.

If the amounts resulting from the assignment of receivables are insufficient to pay the obligations of the issuer, as recalculated to date, to the bondholders, for the remaining balance they may satisfy their claims against the issuer's estate, together with the other unsecured creditors.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR).[1] The covered bonds issued under the Covered Bond Law comply with Article 129(1) CRR and fulfil the UCITS 52(4) criteria. The law requires such bonds to be issued by a credit institution, which is subject by law to special public supervision designed to protect bondholders (i.e. supervision by the National Bank of Romania and respectively by the capital markets supervision) and provides coverage by law of the claims attaching to the bonds in the event of failure of the issuer, on a first priority basis for the reimbursement of the principal and payment of the accrued interest.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/99/Obligatiuni_Ipotecare_-_Mortgage_Covered_Bonds

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.32 RUSSIA

By Tim Lassen, PFP Group Ltd., Representative Office, Moscow

I. FRAMEWORK

This article will give an overview over the current Russian legal framework for mortgage obligations. Legal basis is the Law on Mortgage Securities[1]. This law is supported by rules in the Mortgage Law, the Bankruptcy Law, and the Securities Market Law.[2]

In addition the Central Bank of the Russian Federation (CBRF) issued the Mortgage Cover Mandatory Requirements Instruction[3]. The former Federal Financial Markets Service (FSFR) released:

> The Mortgage Cover Determination Order[4],

> A joint order containing (i) the Special Depositor Decree and (ii) the Register Maintenance Rules and

> The Mortgage Cover Administrator[6].

Further rules are in general regulations of the CBRF in its role as regulator of the financial market[7].

During the last years the former Agency for housing mortgage lending (AHML, in Russian AIZhK) has been restructured into the "Unified Development Institute in the Housing Sphere", since 2 March 2018 renamed into "Dom.RF Russia Housing and Urban Development Corporation".[8] The institute is still hold by the Russian Govmernment. Its task is the deveolpment of the Russian housing market.

On 20 September 2019 the Government of the Russian Federation approved an "Action plan ("road map") for the development of the mortgage obligatins' market".[9] Aim is to enhance marketability, efficiency and liquidity of mortgage obligations. The structure foreseen for this is a mortgage agent, set up by Dom.RF and a suretyship of Dom.RF[10] for the issued mortgage obligations. Some measures around the morgage obligations shall be improved (e. g. repo transactions, abolishment of rights of the morgage borrowers to challange payments under the mortgage obligations). This system has correctly been criticized as "Remake of the american morgage crises".[11]

In connection with the corona virus pandemic the President of the Russian Federation published a "List of delegtions based on the results of a meeting with the Government regarding questions of the development of the construction sector".[12]

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1 Federal law dated 11 November 2003 No 152-FZ "On Mortgage Securities", latest amendment: Art. 2 of the Federal law dated 01 May 2019 No. 76-FZ (SZ RF, 06.05.2019, no. 18, item 2200); Art. 1 of the Federal law dated 02 August 2019 No. 261-FZ (SZ RF, 05.08.2019, N 31, ст. 4420); Art. 4 of the Federal law dated dated 01 April 2020 No. 97-FZ (www.pravo.gov.ru, 01.04.2020); Art. 3 of the Federal law dated 03 April 2020 No. 106 (www.pravo.gov.ru, 03.04.2020).

2 The legal environment, in comparison to other countries and to the MBS model is described in Lassen, Tim: Banking mortgage securities (Covered Bonds) in Russia and abroad (Bankovskiye ipotechnye tsennye bumagi (Covered Bonds) v Rossii i za rubezhom); Statut Publishers, Moscow 2019. Pledge backed securites have a long history in Russia, going back to the early modern ages: Rybalov, A. O.: Oborot zakladnych kabal v russkom prave XVI v. (Turnover of Pledge Prescriptions in Russian law in the 16th Century); Herald (Vestnik) of Civil Law, no. 3 2008 volume 8; p. 90 – 106.

3 Instruction of the CBRF dated 31 March 2004, No 112-I "On mandatory requirements for credit organisations, issuing securities with mortgage cover".

4 Order dated on 1 November 2005 No 05-59/pz-n "On confirmation of the Decree on the method of determination of the mortgage cover".

5 Order dated 01 November 2005 No 05-60/pz-n "On confirmation of the Decree on the activity of the special depositar for the mortgage cover and the Rules of the maintenance of the register of the mortgage cover".

6 Order dated 15 December 2009 No 09-57/pz-n "On confirmation of the Decree on data reporting of the administrator of the mortgage cover and the Decree on data reporting of the specialised depositor of the mortgage cover".

7 See ECBC Fact Book 2017, p. 437, footnote 6.

8 Homepage of the institution (in cyrillic letters): дом.рф. Dom.RF has published a "Standard on mortgage lending" (Information letter of the CBRF dated 11.11.2019 no. ИН-06-59/82; published: Herald (Vestnik) of the Bank of Russia, no. 73, 20.11.2019).

9 The CBRF on 23.01.2020 published on its home page a document on the „Main directions of the development of the finance market of the Russian Federation in the time period 2019 – 2021".

10 In a Clarification, published 04.07.2019 the CBRF gave instructions on risk weighting of mortgage obligations, secured by a Dom.RF suretyship.

11 Borzov, Nikita: Kak v Rossii gotovyat remejk amerikanskogo ipotechnogo krizisa; Forbes Russia (online edition) 30.09.2019.

12 Approved by the President 22.04.2020 no. Пр-699.

II. STRUCTURE OF THE ISSUER OF COVERED BONDS

The Russian Law on Mortgage Securities foresees two types of "mortgage obligations"[13] (Art. 7, sec. 1[14]): obligations[15] issued (i) by a credit organisation (covered bonds) or (ii) by a SPV ("mortgage agent") (MBS)[16].

Obviously the mortgage obligations issued by credit organisations, are oriented on the European covered bond model, those mortgage obligations issued by SPVs on the MBS model.[17]

For new issues (new series of issues) new cover pools need to be set up. The cover pool for every issue can be modified in cases, stipulated by the law, to ensure that there is always enough cover for the outstanding mortgage securities.

Credit organisations (Art. 7, sec. 2)

A credit organisation has to comply with the Banking Law and the rules, set up by the Central Bank for credit organisations. If the credit organisation does not fulfil the statutory requirements, the licence can be revoked (Art. 20, sent. 1, no 10 of the Banking Law).

By pt. 1.1 and 2.4 of the Mortgage Cover Mandatory Requirements Instruction, the CBRF has set up a special regulation[18] for the minimal ratio between the volume of the cover pool and the volume of the issued mortgage obligations (N18): 100 % (pt. 1.1, sec. 3 and 2.4 of the Mortgage Cover Mandatory Requirements Instruction).

For credit organisations the excess amount of the cover pool shall not be more than 20% (Art. 13, para. 3, sec. 2).[19]

Protection of terms

Due to Art. 6, the words "obligation with mortgage cover" (in Russian *obligatsiya s ipotechnym pokrytiem*), mortgage participation certificate (*ipotechnyj sertifikat uchastiya*), mortgage cover (*ipotechnoe pokrytie*), mortgage agent (*ipotechnyj agent*) and "mortgage specialized organisation" (*ipotechnaya spezializirovannaya organisatsiya*)[20] may be used only for the purposes of the Law on Mortgage Securities.

III. COVER ASSETS

Eligible assets under the Russian Law on Mortgage Securities are mortgage secured claims under a loan or credit agreement, including interest (Art. 3, sec. 1) or pledged claim rights of a participant in shared construction[21] (art. 3 sec 3.1 and 7)[22].

13 Language of the Law: "Obligations with mortgage cover".

14 Law citations without link are citations of the Law on Mortgage Securities.

15 "Housing mortgage obligations" are a special type of mortgage obligations (in Russian *zhilishchnaya obligatsiya s ipotechnym pokrytiem*): Their cover pool consists only of claims, secured by mortgages over housing premises (Art. 3 sec. 5). "Mortgage obligations secured by a pledge of rights of claim of a participant in shared construction" (*obligatsiya s ipotechnym pokrytiem, obespechennoy zalogom prav trebovaniya uchastnika dolevogo stroitel'stva*) are secured by a pledge over a contract for participation in shared construction that meets the requirements of Federal Law of 30 December 2004 no. 214-FZ (art. 3 sec 3.1).

16 Another mortgage security under the Law is the "mortgage participation certificate" (Art. 17 – 31), an instrument similar to investment fund certificates. Due to their different structure in this article we will not look after them. In 2018 a discussion started to abolish this instrument.

17 Cover rules for Covered Bonds and MBS are nearly the same. The issuing SPVs ("mortgage agents", art. 8) are described in detail in the ECBC Fact Book 2011, p. 413 and 2015, p. 393.

18 On the bases of Art. 7, sec. 2.

19 Banks enjoying only a basic banking licence are allowed to run capital market operations with mortgage securities (pt. 1 sec. 5 Direction of the CBRF dated 27.11.2018 no. 4979-U (registered by the Ministry of Justice 19.12.2018, no. 53056, published Herald (Vestnik) of the CBRE, no. 97, 28.12.2018) in connection with Art. 24 sec 5 Federal Law dated 02.12.1990 no. 395-1 "On Banks and Banking Activities" (SZ RF, 05.02.1996, no. 6, item. 492). Art. 5.1 Banking Law sets limitations for activities of banks with a basic license.

20 "Mortgage specialized organization" is another allowed name for "mortgage agent" (Art. 8, sec. 1, para. 5).

21 Arising from a contract for participation in shared construction that meets the requirements of Federal Law of 30 December 2004 no. 214-FZ "On participation in shared construction of apartment buildings and other real estate and on amendments to some legislative acts of the Russian Federation". Introduced into the Law on Mortgage Obligations by Art. 1 of the Federal law dated 02 August 2019 No. 261-FZ.

22 These "pledged claim rights" are eligible, if (art. 3 sec 3.1)
- the contract of participation in shared construction fits to the Ferderal Law dated 30 December 2004 no. 214-FZ;

Eligible are also money in Russian and foreign currency, state bonds and real estate (Art. 3, sec. 1).[23]

Requirements for eligible mortgage secured claims are:

> The mortgage shall content a prohibition on sale of the mortgaged property by the mortgagor without consent of the mortgagee (Art. 3, sec. 2, pt. 2).

> The property has to be insured to the benefit of the mortgagee for the whole term of the loan to an amount not less than the mortgage secured claim (Art. 3, sec. 2, pt. 3).

> The share of mortgage secured construction claims is limited to 10% of the cover pool (Art. 3, sec. 3, para. 3). For housing mortgage obligations, mortgage secured construction claims are not eligible (Art. 3, sec. 3, para. 1, sent. 2).

> Claims, secured by a second ranking mortgage are eligible, as far as they do not exceed the LTV limit of 70% (Art. 3, sec. 3, para. 2).

> In the moment of distribution (razmeshcheniye) or delivery (vydacha) of the mortgage obligations the cover cannot sustain of mortgage secured claims, pledged to secure other obligations (Art. 3, sec. 3, para. 1).

One asset may only be used for one cover pool (Art. 3, sec. 5).

The Federal Law dated 01 May 2019 No. 76-FZ introduced additional rules for cover assets (art. 13 sec. 7; 14 sec. 1 para 4): changes to the Consumer Credit Law allow under certain circumstances for "mortgage holiday" – for a time period up to 6 months a consumer may take "holiday" from paying for the mortgage. After this period he will step in at the same stage of credit, where he took holiday. This shall not be seen as a deterioration of the cover quality or as a breach of cover rules. Further similar rules are introduced by art. 1 in connection with art. 6 and 7 of the Federal law dated 03 April 2020 No. 106.

In Moscow a state project for renovation of old buildings has started. Part of this program is the relocation of the residents of such buildings to newly built houses and demolition of the old building. If a resident as owner has mortgaged his flat in the old building the Federal law dated 1 July 2017 No. 141-FZ sets – for this special case – a mechanism to transfer the mortgage to the new flat of the resident. Within six months from the change of the mortgage object the mortgagor has to insure the flat against loss and damage. Otherwise the claim secured by this mortgage has to be deleted from the cover register (art 3 sec 2.1). As valuation – as a market valuation might not be available – the official cadastre value may be used (art 3 sec 2.2).

- the contract of participation in shared construction contains a clause, by which the pledgor cannot give an order to the bank, holding the pledged account, where as a result of fulfilling this order, the amount of money on the account will be lower, than an amount equivalent to the pledged claim rights.
- pledged claim rights are only eligible up to 80 per cent of all pledged claim rights under the contract. This amount has to appriased by an independent valuer;
- item of the pledged claim rights can only be money claims;
- share of secured claim rights shall not be more than 40 per cent of the cover pool.
- When the pleged claim right converts into a mortgage secured claim, this mortgage secured claim has to fit to the Law on Mortgage Obligations to be eligible. In particular the mortgaged real estate object has to be insured not later than 6 month after state registration of its ownership.

The pleged claim right has to be proofed by (art 3 sec 7):

- Excerpt from the Unified State Register of Immoveables, showing the registration of the contract of participation in shared construction;
- Credit of loan agreement, from which the pledged claim right is origination;
- A document of transfer of the creditors and pledgees rights (if any).

23 Real estate can only be used as cover, if it is purchased in foreclosure of a cover mortgage (Art. 3, sec. 1; Art. 13, sec. 1, para. 3) and for not longer than two years since the acquisition (pt. 27.3 Statute on Standards for Issues of Securities, Procedure of State Registration of the Issue (Additional Issue) of Issuing Securities, State Registration of Reports on Results of the Issue (Additional Issue) of Issuing Securities and Registration of Securities' Prospectus' (confirmed by the Bank of Russia, 11.08.2014, No. 428-P)(registered by the Ministry of Justice, 09.09.2014, No. 34005; published: Herald (Vestnik) of the Central Bank, No. 89-90, 06.10.2014)(here following: Statute CBRF No. 428-P).

IV. VALUATION AND LTV CRITERIA

Due to art. 3, sec. 2, para. 2, the LTV limit is 80% of the market value of the property. If a second ranking mortgage is used for cover, the LTV limit is 70%[24] of the market value (Art. 3, sec. 3, para. 2). In both cases, the valuation has to be made by an independent valuer[25].

The Law does not contain special regulations on valuation for the purpose of mortgage securities.

V. ASSET-LIABILITY MANAGEMENT

Art. 3, sec. 4 stipulates that the amount of the cover is defined by summing up the mortgage secured claims, amount of money in the cover and value of other assets. Details are set up by the FSFR in the Mortgage Cover Determination Order.

The following claims shall not be encountered by summing up the mortgage cover:

> No payment made on the claim for more than six month;

> Loss of the mortgage object, including if the mortgage was declared void by a court;

> Secured obligation declared void by a court;

> Bankruptcy of the debtor; and,

> No insurance of the mortgage object for more than 6 month.

> The cover asset does not fit to the general rules for eligible claims; cover assets can be replaced by other assets (Art. 14, sec. 1; Art. 3, sec. 2 and 4).

For proper performance of the obligations under the mortgage bonds[26] the amount of the cover pool for the whole maturity of the bonds shall not be lower than the aggregate outstanding nominal value of the bonds (Art. 13, sec. 2, para. 2, sent. 1).

One cover pool can secure two or more tranches of mortgage obligations (Art. 11, sec. 2, para. 1; Art. 13, sec. 2). In this case the rules on calculation of the necessary cover for one tranche apply similarly (Art. 11, sec. 2, para. 1). If mortgage securities are issued in several tranches on the bases of one cover pool, the volume of the cover pool has to be either not less than the nominal value of each tranche together with other tranches with similar or foregoing ranks or at least not less than the amount of the mortgage cover, set up in the decision on issue of covered bonds of the respective and the foregoing ranks[27] (Art. 13, sec. 2, para. 3). Among the two or more tranches the issuer may define an order of priorities: The performance of claims of one tranche is only allowed after proper performance of the claims of the higher ranking tranche(s) (Art. 11, sec. 2, para. 2 and 3). The rule, that for all tranches at any time the cover rules are fulfilled, can be excluded for the junior tranche by the decision on the issue (Art. 11, sec. 2, para. 1; Art. 13, sec. 6).

Money received from the repayment of the mortgage secured claims has to be included into the cover pool as far as this is necessary to fulfil the legal stipulations on the volume of the cover pool (Art. 13, sec. 4). Only at the moment of formation of the cover pool, it has to sustain for 100% of mortgage loans. After issuing the bonds, due to amortisation of the cover pool, this share will reduce. To avoid the consequence of necessary prepayment of the issue, and the risk that potential new cover mortgage loans will not fit to the parameters, the money from regular repayments of the mortgages has to be included into the cover pool.[28]

24 Including the first ranking mortgage.

25 The valuers' profession and independence of the valuer is regulated in the Valuation law.

26 In Russian "nadlezhashchoe ispolnenie obyazatel'stv po obligatsiyam s ipotechnym pokrytiem".

27 The second possiblity has been stipulated by the law to change the Mortgage Securities Law in 2018 (see footnote 1, this amendment in force since 28 December 2018).

28 See pt. 5 Explanatory Memorandum of the authors of the draft dated 19 August 2011.

The mortgage securities' holders have the right to claim for prepayment of the mortgage securities in the following cases (Art. 16, sec. 1): Breach of the rules regarding:

> Volume of the cover pool;

> Replacement of cover assets;

> Proper fulfilment of obligations under the mortgage securities;

> The issuer is active in fields not allowed for it; and,

> Other reasons stipulated by the decision on issuing mortgage obligations.

A time frame to claim for prepayment has to be set up in the decision of the issue and shall not be less than 30 days from discovery or disclosure by the issuer of the prepayment right to the mortgage securities' holders (Art. 16, sec. 3, sent. 1). After this term the right to claim for prepayment ends (Art. 16, sec. 1, sent. 2). If the prepayment right arose in connection with a breach of the rules for the volume of the cover pool and/or the proper fulfilment of obligations under the mortgage securities as described in Art. 13, the right to claim a prepayment ends on the date of discovery or disclosure of information by the issuer of elimination of the breaches (Art. 16, sec. 3, sent. 2).

The issuer has to inform the mortgage securities' holders, that the right to claim for prepayment has arisen, the value of the securities, the procedure of prepayment and the termination of this right (Art. 16, sec. 2).

VI. TRANSPARENCY

The Law on Mortgage Securities stipulates a wide range of publishing information on the mortgage obligations by the issuer (Art. 37 – 41). In addition to the main rules according to the Securities Market Law (Art. 37, para. 1; Art. 40, sec. 1), important information is an accounting report on performance of the cover assets (Art. 40, sec. 4, para. 2). Credit organisations issuing mortgage obligations have special reporting duties to the Central Bank (Art. 7, sec. 1, para. 3; pt. 3.1 – 3.5 of the Mortgage Cover Mandatory Requirements Instruction).

Main points for publishing information are:

> If the mortgage obligations are rated by a rating agency, this rating has to be published (Art. 37, para. 2).

> Interested persons have the right to get knowledge of the cover register (Art. 39, para. 1).

> The regulator set up further special rules for mortgage obligation issuers in the general regulations on disclosure of information[29].

VII. COVER POOL MONITOR, COVER REGISTER AND BANKING SUPERVISION

Cover pool monitor

The cover pool is controlled by a cover monitor (the "specialized depositor of the mortgage cover"[30]), Art. 33, sec. 1. The cover monitor has to be a commercial organisation[31], licensed for (i) activity as special depositor for investment funds, share investment funds and non-state pension funds as well as for (ii) performance of depositary activities on the securities' market (Art. 32, para. 2). The FSFR has published the Special Depositor Decree.[32]

The duties and tasks of the cover pool monitor are described in the ECBC Fact Book 2012, pp. 418 – 419.

29 Statute on Dislcosure of Information by the Issuers of Issuing Securities (confirmed by the Bank of Russia, 30..2014, No. 454-P) (registered by the Ministry of Justice, 12.02.2015, No. 35989; published: Herald (Vestnik) of the Central Bank, No. 18-19, 06.03.2015) (here following: Statute CBRF No. 454-P). Special rules for mortgage securities are foreseen in Section VIII, chapter 76 – 78, Annex 2 Part B pt. 8.12.3 and 9.4.1, Annex 3 Part B pt. 8.4.1.

30 In Russian "spetsializirovannyj depozitariy ipotechnogo pokrytiya".

31 Not affiliated with the issuer (Art. 33, sec. 3, para. 2).

32 In the letter „On procedure of work of the specialized depositor" dated 30.08.2017 no. 54-2-3-5/1943 the CBRF gave some explanations regarding the duties of the cover pool monitors.

Cover register

Cover assets have to be registered in a "register of mortgage cover"[33] (Art. 5). The FSFR has adopted Register Maintenance Rules[34].

Details are described in the ECBC Fact Book 2012, pp. 419 – 420.

Supervision

Since 2013 the whole financial and banking system is supervised by the Central Bank of the Russian Federation.

Concerning mortgage securities the state regulation of issuing mortgage securities (Art. 42 – 46) as well as the supervision of banks, issuing mortgage securities, is done by the Central Bank (Art. 7, sec. 2).

Issuing of mortgage obligations

For details of this process see ECBC Fact Book 2012, pp. 420 – 421.

For issuing securities, Russian law foresees a five step process[35]: (i) Taking the decision on issue, (ii) approval of the decision, (iii) state registration of issue, (iv) placement of securities and (v) state registration of the report or notification on results of the issue. For these general steps, the CBRF has set up special requirements for the issue of mortgage securities.[36] Due to art. 12 sec 3.3 mortgage secured bonds can be issued as stock exchange bonds under the Securities' Market Law.

If in the decision on issue of mortgage securities an issuing program is foreseen, the law stipulates several rules regarding content of this program (Art. 12 para 3.2).[37] In this case the decision on the issue shall sustain of two parts. The first part will describe the rights of the bond holders and other general conditions of one or several issues of the program. The second part will contain concrete conditions of single issues. In addition to the rules of the Securities Market Law for bond issuing programs, housing mortgage obligation issuing programs shall contain information on the securing pledge over the cover pool and some other information. The CBRF is entitled to set up further rules, which it has not done yet.

Covered bonds can be issued only as uncertificated securities (Art. 16 sec. 2 Securities Market Law).[38]

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF MORTGAGE OBLIGATIONS

The claims of the mortgage securities' holders are secured by a pledge over the cover pool (Art. 11, sec. 1).

Asset segregation

In case of bankruptcy the cover pool is excluded from the bankruptcy estate of the issuer (Art. 16.1, para. 1 of the Law on Mortgage Securities; Art. 131, sec. 2, para. 3; Art 189.91, sec. 2 para 1, sec 4 of the Bankruptcy Law).

The insolvency administrator is obliged to open two special bank accounts for the cover pool to collect the money paid on the mortgage secured claims or from realisation of these claims and to make payments to the mortgage

33 In Russian "reestr ipotechnogo pokrytiya".

34 The cover register contains information on the mortgage claims on the loan-level basis (Art. 5).

35 Art. 19 Securities' Market Law; Pt 1.1 Statute CBRF No 428-P. The CBRF prepared a new Statute "On standarts of issuing securities" (19.12.2019, no. 706-П), which has not come into force yet.

36 Special rules for mortgage securities are foreseen in section VII, chapter 27 – 30 and Annex 16 of this Statute CBRF No 428-P. Until 01 January 2020 registration of the prospectus under some circumstances could be replaced by assignment of a registration number by a stock exchange (art. 5 of the Federal law dated 02 August 2019 No. 261-FZ).

37 The special rules for housing mortgage obligations in art. 12 para 3.1 – 3.3 have be changed or abolished since 1 January 2020.

38 Introduced by the law changing the Mortgage Securities Law in 2018 (see footnote 1, this amendment in force since 28 December 2018). Accordingly Art. 2 sec. 2 regarding certificated covered bonds will be rescinded on 1 January 2020 (as well stipulated in the amendment in 2018).

obligations' holders (Art. 133, sec. 4 of the Bankruptcy Law). A special administrator of the cover pool, different from the insolvency administrator of the general bankruptcy estate is not foreseen.[39]

Impact of insolvency proceedings on mortgage obligations

The Law on Mortgage Securities stipulates two possibilities of realisation of the cover pool in case of bankruptcy of the issuer (Art 16.1, para. 2):

> Change of the issuer ("zamena ėmitenta obligaciy s ipotechnym pokrytiem"): The cover pool will be sold with the obligation for the buyer to fulfil all conditions of the decision on issuing the mortgage obligations. Details have to be stipulated by a federal law. This federal law has not been enacted yet.

> Selling of the cover pool ("prodazha ipotechnogo pokrytiya"): The cover pool assets will be sold and the money received will be distributed among the mortgage obligations' holders. The mortgage obligations accelerate.[40]

The rules for the change of the issuer foresee the following: the claims of the holders of the mortgage securities will not be included into the general creditors' register under the bankruptcy law, but they will be registered in a separate register. The representative of the bond holders or the central depositor[41] for rights connected with bonds will be entered in the creditors' register for claims of mortgage securities' holders[42], if they are appointed. If not, the mortgage securities' holders will be registered as creditors (Art. 16.1 para 1 sec. 2).

A list of the mortgage securities' holders shall be prepared by the holder of the register of mortgage securities' holders on demand of the bankruptcy receiver and shall be in line with the according rules of the Securities Markets Law (Art. 16.1 para 5).

If a representative of a central depositor is appointed, the bankruptcy receiver shall transfer the money, received from realization of the cover pool to a special account of the representative or depositar (Art. 16.2 para 3 sec 3 and sec 5).

Preferential treatment of mortgage obligations' holders

Mortgage obligations' holders enjoy preferential treatment as the Russian law stipulates the separation of the cover pool from the general insolvency estate of the issuer (Art. 16.1, para. 1).

In case they are not satisfied in the realisation of the cover pool, the mortgage obligations' holders may ask for satisfaction from the general bankruptcy estate of the issuer (Art. 16.1, sec. 1 para. 3).

They are also enjoying a preferential treatment against deposit holders, as the cover pool – securing mortgage obligations – is excluded from the general bankruptcy estate, which in turn secures depositors on preferential bases[43].

For details to access to liquidity in case of insolvency and sale and transfer of mortgage assets to other issuers, see ECBC Fact Book 2012, p. 423.

39 Due to art. 16.2, sec. 3, para. 3 and 4 in case if one (or severeal) bond holders' representatives are appointed for the covered bonds secured by one cover pool (for several tranches secured by one cover pool) the bankrupcy receiver will transfer the money to a special account of the representative. The representative will distribute the money among the the bond holders. Regarding the bond holders' representative, see ECBC Fact Book 2014, p. 395, footnote 28. Some details regarding beginning of office of the representative have been clearified by the CBRF in the Information letter dated 10.10.2018 no. IN-06-28/65 (published Herald (Vestnik) of the Central Bank, no. 78, 17.10.2018).

40 Moody's assigned a timely payment indicator (TPI) of "Very Improbable", as covered bonds under Russian law accelerate, if the issuer becomes insolvent. Due to Moody's the Law on Mortgage Securities offers limited support for timely payment to the covered bond holders, after issuer default. (Moody's Investors Service: Pre-Sale Report: DeltaCredit Bank Mortgage Covered Bonds, 20 November 2012 and 19 July 2013, in both reports p. 2).

41 Depositor's activity is foreseen in Art. 7 Securities Market Law for uncertificated securities.

42 In Russian: "Reestr trebovaniy kreditorov – vladelcev obligaciy s ipotchnym pokrytiem".

43 See the Explanatory Memorandum of the authors dated 01 February 2011, the Official Opinion of the Government of the Russian Federation dated 6 July 2011 and the Conclusions of the Financial Markets' Committee of the State Duma as of 20 September 2011 and 24 January 2012 to draft law no 495103-5 (enacted as Federal law dated 25 June 2012 No 83-FZ).

Enforcement into the cover pool

Russian Covered Bond Law allows for enforcement of the covered bond holders into the cover pool (Art. 15). The general realisation rules of the Mortgage Law will apply. In case of different issues with different ranking, the ranking has to be kept in distribution of the receipts (Art. 15, sec. 3).

If an issue sustains of several tranches, the foreclosure in one tranche is only allowed upon an application of the bond holders' representative (Art. 15, sec. 1, para. 3).

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION; ECBC LABEL CONVENTION

Russian mortgage obligations (mortgage obligations, issued by credit organisations) comply with the requirements of Art. 52, sec. 4 UCITS and the ECBC Label Convention (see ECBC Fact Book 2012, pp. 424 – 426). The CRR is fulfilled for mortgage obligations, issued by banks, where the cover pool sustains only of housing mortgage loans (e.g. housing mortgage obligations).[44]

Mortgage obligations still enjoy a privileged risk weighting compared to other non-public securities: Mortgage obligations are weighted with 50% instead of 100%.[45] Up to the amount secured by a guarantee of the development institute Dom.RF the risk weighting is 20%.[46]

By implementing Basel III rules, in 2015 the CBRF adopted the "Statute on the Order on Calculation of the Amount of Market Risk by Credit Organisations"[47]. In pt. 2.1 sec. 9, 10 this Statute CBRF No. 511-P contains for this Statute a definition of securitisation: Securitisation instruments are securities, performance of which is partly or in full secured by the cash inflow from pledged assets, which in turn are no securitisation instruments (or which are securitisation instruments itself, if it is a multiple securitisation). Due to the double recourse character of covered bonds – the covered bond gives a claim towards the bank, which the bank has to fulfil also in case, if there are no payments on the cover assets, the cover pool acts as security in case of bankruptcy of the issuing credit institute – the Statute CBRF No. 511-P seems not to be applicable to covered bonds.

For calculation of sufficiency of equity of investments of a bank in mortgage securities and shares of a mortgage agent (and other assets) the CBRF set up a new formula of accounting the credit risk.[48]

X. ADDITIONAL INFORMATION

Investment regulations

The EU investment regulations for mortgage obligations are not transferred into Russian law. Nevertheless, different investment rules and privileges for mortgage securities do exist. E. g. in 2017 the Central Bank has set up new rules for investing pension deposits of non-state pension funds in different asset classes.[49]

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44 For mortgage obligations, secured by commercial mortgage loans, the CRR requirements (Art. 129, sec. 1, lit. f) are not fulfilled, as a loan up to a value of 80% of the market value is allowed under Russian law as cover asset (see ECBC Fact Book 2014, pp. 399 – 403).

45 This privilege is based on pt. 2.3.28. and pt. 2.3.3., Schedule 1 Designation code "8887.K" of the Instruction CBRF "On mandatory requirements for banks" dated 28.06.2017 No 18-I (Herald (Vestnik) of the Central Bank, no. 65-66, 04.08.2018, registered by the Ministry of Justice 12.07.2017, no. 47383)(following: Instruction CBRF No. 18-I).

46 Pt. 2.3.2 lit d, para 9, Schedule 1, designation code 8943.1 of the Instruction CBRF No. 18-I.

47 Statute approved by the Central Bank on 03.12.2015 No. 511-P (registered by the Ministry of Justice, 28.12.2015, No. 40328; published: Herald (Vestnik) of the Central Bank, No. 122 (1718), 31.12.2015, p. 50 – 70, here following: Statute CBRF No. 511-P. The Statute came into force 1 January 2016 (pt. 5.1).

48 Art. 2 sec 2 and 7 of the Statute approved by the CBRF on 04.07.2018 no. 647-P "Statute of accounting of the amount of credit risk by banks in transactions, outcome of which is the attraction of monies through issue of bonds, settlement of each of it is in full or in part secured by return of monies from assets, used as security" (registered by the Ministry of Justice dated 10.10.2018 no. 52392; published: Herald (Vestnik) no. 79, 24.10.2018).

49 Statute approved by the Central Bank on 01.03.2017 No. 580-P (published: Herald (Vestnik) of the Central Bank, No. 56, 10.07.2017, here following: Statute CBRF No. 580-P). See pt. 1.1.2. of Statute CBRF No. 580-P.

> Figure 1: Overview over the issues of bank mortgage obligations (covered bonds)[50]

	Date of issue	Issuer	Tranches	Volume[51]		Interest rate	Maturity
				RUB	EUR		
1	21.09.2011	VTB 24		5,000.0	116.5		26.11.2043
			A	3,333.3	77.7	9.00%	
			B	1,666.7	38.8	3.00%	
2	14.09.2012	VTB 24		6,000.0	147.9		
			A	4,000.0	98.6	9.00%	15.09.2044
			B	2,000.0	49.3	3.00%	15.09.2044
3	23.05.2013	VTB 24		6,000.0	148.7		01.09.2044
			A	4,000.0	99.2	9.00%	
			B	2,000.0	49.6	3.00%	
4	18.12.2013	VTB 24		12,300.0	271.7		18.09.2046
			A	8,200.0	181.2	9.00%	
			B	4,100.0	90.6	3.00%	
5	27.03.2014	DeltaCredit[52]		5,000.0	102.1	12.00%	27.03.2024
6	25.06.2014	VTB 24		6,000.0	129.8		14.08.2043
			A	4,000.0	86.5	9.00%	
			B	2,000.0	43.3	3.00%	
7	01.10.2014	Delta Credit		7,000.0	140.1	11.1%	01.10.2024/ 22.10.2021
8	10.10.2014	Delta Credit		5,000.0	98.1	11.92%	10.10.2024
9	10.12.2014	Gazprombank		7,000.0	104.7		27.04.2048
			A	4,666.7	69.8	9.00%	
			B	2,333.3	34.9	3.00%	
10	10.12.2014	VTB 24		5,800.0	86.7		06.12.2044
			A	3,800.0	56.8	9.00%	
			B	2,000.0	29.9	3.00%	
11	23.09.2015	Unicredit		4,000.0	54.1	12.25%	16.09.2020
12	26.02.2016	Gazprombank		15,000.0	178.1	10.90%	19.02.2021
13	24.11.2016	DeltaCredit		7,000.0	102.9	10.29%	24.11.2021
14	28.12.2017	Delta Credit		7,000.0	100.7	7.82%	28.12.2022
Total outstanding				**98,100.0**	**1,782.2**		
							Date of redemption
1	16.12.2009	VTB 24		15,000.0	341.3	9.70%	10.12.2014
2	11.10.2007	MIA		2,000.0	56.7	12.50%	01.10.2015
3	12.02.2015	Investtorgbank		2,500.0	33.4	15.35%	12.02.2020
4	14.09.2011	Unicreditbank		5,000.0	121.3	8.20%	07.09.2016
5	02.04.2013	DeltaCredit		5,000.0	125.6	8.50%	02.04.2016
6	09.11.2011	DeltaCredit		5,000.0	119.2	8.33%	02.11.2016
7	11.12.2012	DeltaCredit		5,000.0	125.5	9.15%	05.12.2017
8	04.02.2015	DeltaCredit		5,000.0	65.1	8.50%	04.02.2018
9	10.07.2013	DeltaCredit		5,000.0	117.3	8.65%	04.07.2018
10	05.09.2013	DeltaCredit		5,000.0	113.4	8.45%	30.08.2018
11	30.03.2016	DeltaCredit		5,000.0	65.1	10.57%	30.03.2019
Total redeemed				**59,500.0**	**1,283.9**		
Total issued				**157,600.0**	**3,066.1**		

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/41/Mortgage_Obligations_

50 Details of the issues can be found on www.cbonds.info and Encyclopedia of Russian Securitization, 7th ed. Saint Petersburg 2020, pp. 181, 182.
51 CBRF exchange rate as of date of issue.
52 Since 1 June 2019 AO CB Delta Credit has been reorganized by incorporation into PAO Rosbank (as mortgage center Rosbank-Dom).

3.33 SINGAPORE

By Colin YS Chen, DBS Bank & Chairman of the ECBC Global Issues Working Group and Franz Rudolf, UniCredit

I. FRAMEWORK

On 31 December 2013, the Monetary Authority of Singapore ("MAS") published its regulations regarding the issuance of covered bonds by banks incorporated in Singapore (MAS Notice 648)[1]. The regulations became effective 31 December 2013 and were amended in June 2015. The requirements set out in the notice are mandatory for Singapore's banks as MAS Notice 648 is part of The Banking Act in Singapore. The regulation outlines MAS' rules relating to the issuance of covered bonds by banks incorporated in Singapore and it will enable Singapore's banks to gain access to longer term, stable funding options as well as to facilitate the diversification of funding sources for the banking and financial markets in Singapore.

DBS Bank Ltd was the first to establish its USD 10 bn Covered Bond Programme under these new regulations on 16 June 2015 and on 30 July 2015, issued the inaugural Singapore covered bond, pricing USD1 bn, fixed rated covered bonds due 2018. Following then, United Overseas Bank Ltd. also launched its USD8 bn Covered Bond Programme on 23 November 2015. The first series of EUR500 mnn fixed-rate covered bonds was subsequently issued on 3 March 2016. The third issuer was Oversea-Chinese Banking Corporation, which issued a EUR500 mn fixed rate covered bonds due 2022 on 15 March 2017, as part of its USD10 bn Covered Bond Programme.

Singapore's covered bonds are based on contractual agreements and governed by the law of contracts under common law, which applies to all elements of the covered bond structure. This, together with the implemented specific covered bond regulations, creates a framework comparable with that of other European jurisdictions, e.g. in the UK, via a more prescriptive regulatory framework.

Singapore's legal system is similar to the legal system in the UK in that the covered bond structure is fundamentally based on statutes or acts, which have been formally enacted by the legislative authority of the Republic of Singapore. It is considered a primary authority and source of law and determines the applicable legislation. The MAS guidelines arising from the MAS Notice 648 and its amendment provide clarity on the characteristics of a Singapore covered bond.

Singapore covered bonds are direct and unconditional obligations of the issuer and in the event of a default or insolvency of the issuer, the covered bond investors will have dual recourse: an exclusive senior secured claim on the pool of cover assets and also a senior unsecured claim on the issuer. The cover pool assets will be held in a special purpose entity, which, in turn, will provide a guarantee in respect of the principal and interest payments under the covered bonds' outstanding. A bond/security trustee is appointed to hold the security over the cover pool for the benefit of the covered bond investors.

II. STRUCTURE OF THE ISSUER

In the MAS Notice 648 covered bonds are defined as "bonds, notes or other debentures issued by a bank or an SPV (Special Purpose Vehicle) where the payments of the liabilities to the holders of such covered bonds and any liabilities arising from the enforcement of the rights of the holders of the covered bonds are: (a) secured by a cover pool; and (b) recoverable from the bank whether or not the cover pool is sufficient to pay off such liabilities." This implies the dual recourse nature of covered bonds with a claim of covered bond holders against the cover pool as well as the issuing bank. The cover pool, in this context, comprises the eligible assets owned by the bank or an SPV for the purpose of securing the liabilities to the holders of the covered bonds only. MAS Notice 648 is applicable to all banks incorporated in Singapore. In order to issue covered bonds, the bank has to notify MAS at least one month prior to the issuance of covered bonds. In addition, issuers will have to submit to the MAS a Memorandum of Compliance, confirming that the guidelines with respect to the program and issuances for covered bonds have been adhered to and complied with.

1 MAS Notices can be found on MAS website at www.mas.gov.sg.

III. COVER ASSETS

The cover pool may consist of the following assets, according to Paragraph 6 of Notice 648:

> Mortgage loans secured by residential property ("residential mortgage loans"), whether in Singapore or elsewhere (no geographic limitation to mortgage loans); the loan-to-value (LTV) limit is set at 80% ("soft limit"), taking into account the current market value of the residential property;

> Any other loans secured by the same residential property as the residential mortgage loans;

> Assets, including intangible properties, that form part of all the security provided for the residential mortgage loans, such as guarantees and indemnities;

> Any interest held by the bank as trustee or a replacement trustee for the SPV in relation to the residential mortgage loans or the assets referred to in paragraphs (a) and (b);

> Derivatives held for the purpose of hedging risks arising from the particular issuance of covered bonds;

> Cash (including foreign currency);

> Singapore Government Securities, and

> MAS Bills.

The aggregate value of substitute collateral (cash, Singapore Government Securities and MAS Bills) is limited to 15% of the cover pool. The 15%-limit can be temporarily exceeded in order to allow the issuer to build up the necessary liquidity to meet payments in the upcoming 12 months or to account for operational timing differences.

MAS imposed to limit the amount of collateral in the cover pool at 4% of total assets of an issuer. Total assets of the bank include assets of the branches but does not include assets of the subsidiaries of the bank. For the purpose of determining the total assets of a bank, the bank shall exclude assets it uses to meet regulatory requirements under sections 38, 39 and 40 of the Banking Act, section 8 of the Deposit Insurance and Policy Owners' Protection Schemes Act and other regulatory requirements as may be prescribed or specified by MAS. Commercial mortgage loans or public sector loans are not eligible.

IV. VALUATION AND LTV CRITERIA

The legal framework sets an 80% loan-to-value (LTV) limit for the eligibility of residential mortgage loans. The LTV limit is a soft limit, meaning that in case a mortgage loan exceeds 80%, the loan can still be included in the cover pool, but only the value up to 80% is given credit to when determining the value of the cover pool. The value of the underlying collateral is determined by the current market valuation of the residential property that is used to secure the residential mortgage loan. A valuation of residential properties used to secure the loans shall be conducted on an annual basis.

V. ASSET – LIABILITY MANAGEMENT

MAS Notice 648 Paragraph 6(h) stipulates a mandatory minimum overcollateralisation (OC) of 3% on a nominal basis as "... the value of assets in a cover pool shall be at least 103% of the outstanding nominal amount of the covered bonds secured by the assets at all times." Covered Bond issuers shall in accordance with MAS Notice 648 Paragraph 8(a) perform regular asset coverage tests (ACTs) to ensure collateral quality and the proper level of overcollateralisation. In addition, regular stress tests on risks related to default, prepayment, currency, interest rate, counterparty and liquidity have to be performed. Details regarding these tests will be addressed in the respective covered bond programs of Singapore issuers.

VI. TRANSPARENCY

Covered bond issuers shall disclose to the covered bond holders the results of asset coverage tests (ACTs) performed and cover pool characteristics on a regular basis and in any event, at least every quarter, according to MAS Notice 648 Paragraph 8(e).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

According to Paragraph 8(b), a cover pool monitor shall be appointed. The cover pool monitor, who has to be an external third party qualified to be an auditor under the Companies Act (Cap 50), has to verify the compliance of the covered bond issuer with Notice 648 regulations and report these to MAS. A certified report has to be submitted to the Authority annually in the first quarter following the end of the bank's financial year. The duties of the cover pool monitor explicitly include to:

> Verify annually that the bank complies with covered bond-specific regulations (asset cap, eligible assets, LTV limits, overcollateralisation, et al. as defined in Paragraph 6(a) to (h));

> Verify annually that the bank or SPV, as the case may be, keeps an accurate register of the assets in the cover pool;

> Assess the adequacy of the bank's or SPV's, as the case may be, risk management process and internal controls relating to the covered bond program annually, including an independent review of ACTs performed by the bank of SPV, as the case may be;

> Submit a certified report to MAS annually on compliance with covered bond regulations; and

> Report to MAS immediately if it becomes aware that the bank or SPV has breached any of the conditions imposed.

Singapore's covered bond regulations stipulate that the issuing bank shall ensure adequate risk management processes and that internal controls are in place to manage the risks arising from the issuance of covered bonds, including appropriate governance arrangements and regular stress tests on risks arising from issuing covered bonds such as default, prepayment, currency, interest rate, counterparty and liquidity risks. This also includes having governance processes in place with respect to the authority to approve any issuance of the covered bond. Finally, regulations state that the board and senior management of the issuer are responsible for conducting due diligence in assessing the risks associated with issuing covered bonds and ensuring that risk management processes that are put in place for covered bonds are adhered to.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Given that Singapore's legal system is based on Commonwealth Common Law, a similar structure applies as used for the issuance of covered bonds in the UK, Canada, Australia, or New Zealand. Thus, covered bonds will be issued by a bank, with the cover pool collateral sold by way of an equitable assignment or by declaring a trust over the collateral to a Special Purpose Vehicle (SPV). The covered bond will benefit from dual recourse on the issuer and the cover pool. This structure ensures the segregation of the cover assets from the insolvency estate of the issuer in the case of an issuer default. The contractual agreements for the issuance of covered bonds are structured within the general legislation in Singapore.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Singapore covered bonds are not UCITS 52(4) or CRR Article 129 compliant given that Singapore is not a Member State of the European Union. As such, it is unlikely that Singapore covered bonds will benefit from preferential risk weighting for regulatory capital purposes. However, given the revised release of the Basel III framework containing preferential risk weights explicitly for covered bonds and the definition of minimum standards, the framework could have a positive impact for covered bonds outside the European Union when it comes into force on 1 January 2022. Covered bonds are LCR eligible in Singapore if they have a long-term credit rating of at least AA- from a recognised external rating agency, and have a proven record as a reliable source of liquidity in the markets even during stressed market conditions.

Issuers: DBS Bank Limited, United Overseas Bank Limited, Oversea-Chinese Banking Corporation.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/111/Singapore_Covered_Bonds

COVERED BOND LABEL **:** DBS Bank Ltd (1 pool), United Overseas Bank Limited (1 pool), Oversea-Chinese Banking Corporation Limited (1 pool).

3.34 SLOVAKIA

By Slavomíra Páleníková, Andrej Zeher, Všeobecná úverová banka, Slovak Republic
and Matej Krčmár, National bank of Slovakia

I. FRAMEWORK

Effective from 1 January 2018 a new legislation regulating covered bonds was adopted.

Covered bonds are regulated by the Act on Bonds (Act No. 530/1990 Coll., Part Four, Article 20b); by the Act on Banks (No. 483/2001 Coll., Part 12); by the Insolvency Act (Act No. 7/2005 Coll., Part 6); by five Decrees of the NBS for covered bonds programme, for example: stipulating the details of an application for prior approval of the NBS and the Decree of the NBS stipulating Covered Bond Register, reporting and disclosure.

According to the Act on Banks, a covered bond is a secured bond under a special regulation (Act on Bonds) the nominal value and aliquot interest income of which are fully covered by assets or asset values in a cover pool and correspond to the value of assets which, for the whole period of validity of the covered bond, are preferentially intended to satisfy claims arising from this covered bond and these assets, in case the bank issuing these bonds, is not able to properly and timely pay its liabilities arising from them, will be preferentially used to pay the nominal value of the covered bond and aliquot interest income. The covered bond can be issued only by a bank with granted prior approval from NBS to perform activities related to covered bonds programme and the title must include the words "covered bond" ("krytý dlhopis").

Cover pool consist of primary assets representing residential mortgage loans with a maximum loan-to-value (LTV) of 80% of the value of the mortgaged real estate, substitution assets amounting maximum of 10% of the total value of the cover pool, hedging derivatives and buffer of liquid assets.

The coverage ratio, calculating the value of the cover pool and the total of the values of liabilities of covered bonds and operational costs over the next year incurred by the issuing bank, must be kept at the minimum level of 105%. In individual terms and conditions of the issuance of the covered bonds, the bank can determine a higher coverage ratio than 105% and from this moment the bank is obligated to maintain such a higher coverage ratio until the full repayment of the covered bond issuance for the entire relevant covered bonds programme. If the bank determines several higher coverage ratios for different issuances, it is obligated to maintain the highest coverage ratio for the entire relevant covered bonds programme until the full repayment of the covered bonds issuance with such highest coverage ratio, while the bank is also obligated to immediately replenish and continuously replenish the cover pool to the extent corresponding to such highest coverage ratio.

The bank is obligated to calculate the coverage ratio as of the last day of the relevant month.

Covered bond holders have recourse to the issuer as well as a preferential claim on the cover pool. The collateral in the cover pool is recorded in a special register of covered bonds and overseen by a cover pool administrator. The special public supervision is divided between the special administrator and banking supervision performed by the NBS.

II. STRUCTURE OF THE ISSUER

The covered bond in Slovakia can be issued only by a bank with granted prior approval from the NBS to perform activities related to covered bonds programme.

The issuer of covered bonds owns the cover assets and keeps them on its balance sheet. The holder of the covered bond has a direct recourse to the issuing bank.

III. COVER ASSETS

Covered bond is a secured bond the nominal value and aliquot interest income of which are fully covered by assets or asset values in a cover pool.

Mortgage loan according to Act on Banks is a loan secured by a lien or other security right to real estate, including building under construction, apartment, including apartment under construction or non-residential premises, including non-residential premises under construction (hereinafter the "real estate"), a part of real estate or future real estate and granted by a bank, foreign bank or a branch of a foreign bank.

Cover pool consists of the following parts:

a) primary assets – consist of the receivables of the issuing bank from mortgage loans with a maturity period not longer than 30 years granted only to retail consumers under a special regulation which are secured by liens to real estate and which are registered by the bank in the register of covered bonds at its discretion. The primary assets include, in addition to the receivables also the liens to real estate used to cover these receivables. The primary assets must account for at least 90% of the total value of the cover pool which, for this purpose, excludes the value of liquid assets. The value of the primary assets is calculated on the basis of a residual nominal value of individual receivables together with aliquot interest income. The primary assets, or any part thereof, in relation to which the debtor is considered defaulted (under Article 178 (1) of Regulation (EU) No. 575/2013) must be deleted from the register of covered bonds.

b) substitution assets – must meet conditions under a special regulation (Article 129 (1)(c) of Regulation (EU) No. 575/2013). The substitution assets can account for not more than 10% of the total value of the cover pool which, for this purpose, excludes the value of liquid assets. The value of the substitution assets will be determined on the basis of their real value.

c) hedging derivatives – consist of derivatives the purpose of which is to manage and mitigate currency risk or interest rate risk connected with issued covered bonds. The hedging derivatives are included into the calculation of the value of the cover pool as follows:

   i) the hedging derivatives used to mitigate the currency risk are measured at fair value,

   ii) the hedging derivatives used to manage and mitigate the interest rate risk of the substitution assets are measured at fair value,

   iii) the hedging derivatives used to mitigate the interest rate risk of the primary assets and the covered bonds are not included into the calculation of the value of the cover pool.

d) liquid assets – consist of assets of level 1 assets, level 2A assets (under Articles 10 and 11 of Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 supplementing Regulation (EU) No 575/2013) except own covered bonds issued by the bank issuing the covered bonds and exposure toward institutions (Article 129 (1)(c) of Regulation (EU) No. 575/2013).

If the bank has not aligned the maturities of positive and negative cash flows within the covered bonds programme in every moment during the following 180 days then, in order to cover all expected negative cash flows from the covered bonds programme, it is obligated to cover them from a buffer of liquid assets at least in the value of uncovered negative cash flows. These assets are a part of the cover pool. The value of securities entering the buffer of liquid assets shall be determined on the basis of their fair value including an aliquot interest income. The value of the buffer of liquid assets is a part of the coverage ratio.

Assets and other asset values become a part of the cover pool when registered in a register of covered bonds and are a part of the cover pool until they are deleted from the register.

The cover pool can be used to cover only:

a) the liabilities of the issuing bank in order to pay the nominal value and aliquot interest income from all covered bonds issued by this bank until they are fully repaid,

b) the estimated liabilities or costs of the issuing bank (operational cost of covered bonds programme) which arise and are immediately connected with the management thereof and settlement toward persons that conduct activities under the Act, or arising from issuance conditions especially toward the administrator of the covered bonds programme, payment service agents, administrators, representatives of the owners of the covered bonds and other persons performing similar activities at least for twelve months,

c) the liabilities of the issuing bank which arise from the hedging derivatives included in cover pool.

Assets and other asset values constituting a part of the cover pool are used by the bank preferentially to cover the bank's liabilities mentioned above and the bank must not dispose of them or use them to secure other liabilities until they are deleted from the register of covered bonds.

IV. VALUATION AND LTV CRITERIA

The legislation sets an 80% loan-to-value (LTV) limit for the eligibility of residential mortgage loans. The LTV limit is a soft one, meaning that in case a mortgage loan exceeds 80%, the loan is included into the primary assets only up to the amount that does not exceed 80% of the value of the pledged property. If the value of the pledged property drops below the amount of the outstanding principal of the mortgage loan, such mortgage loan must be immediately deleted from the register of covered bonds.

The value of the property will be determined by the bank based on an overall assessment of the property and the bank is bound solely by own assessment of the property. The bank is obligated to continuously monitor and regularly reappraise the value of the pledged property according to Decree of NBS No.10/2016 at least once in three years.

The lien on the real estate securing the mortgage loan is established by its recording in the Land Register (Act No. 162/1995 Coll.; Cadastre Law) on the basis of a proposal of the bank and owner of the real estate.

V. ASSET – LIABILITY MANAGEMENT

There is a mandatory minimum overcollateralisation of 5% stipulated by the law.

The bank is obliged to keep liquidity buffer in order to cover the liquidity gap for the following 180 days. If the principle of the covered bond issuance becomes due during the following 180 days, the difference between positive cash flows and negative cash flows shall be calculated as follows:

a) for the period of the following 30 days the calculation includes positive cash flows and negative cash flows in full amount,

b) for the period of the following 31 to 180 days the calculation includes positive cash flows and negative cash flows from interests and principal in full amount with three year adaptation period:

   (i) as from 1 January 2018, the calculation includes positive cash flows and negative cash flows from interests in full amount and negative cash flows from principal multiplied by a coefficient of 0.6;

   (ii) as from 1 January 2019, the calculation includes positive cash flows and negative cash flows from interests in full amount and negative cash flows from principal multiplied by a coefficient of 0.8;

   (iii) as from 1 January 2020, the calculation includes positive cash flows and negative cash flows from interests in full amount and negative cash flows from principal in full amount.

Liquid assets that are a part of the buffer of liquid assets can be included for the purposes of the fulfilment of liquidity requirements during the period of thirty days under a special regulation (Articles 10 and 11 of Commission Delegated Regulation (EU) 2015/61, supplementing Regulation (EU) No. 575/2013) only to the extent of coverage of uncovered negative cash flows from covered bonds during the period of the following thirty days.

If the bank makes transactions in order to mitigate the currency or the interest rate risk arising from a net open currency position or an interest rate position between the issued covered bonds and the assets making up the cover pool, it is obligated to include these hedging derivatives and financial flows from them, together with their security, into the cover pool. The hedging derivatives must meet qualification criteria of an effective hedging relation.

The bank shall carry out yearly stress tests as part of its covered bonds programme. The stress test shall be set in line with the stress test performed to evaluate the appropriateness of the internal capital and include test for credit risk, interest rate risk, currency risk, liquidity risk, counterparty risk, operational risk and immovable property prices decline risk. The bank is required to prove in the stress test that it is able to keep the coverage ratio also during the stress test period.

VI. TRANSPARENCY

The bank issuing covered bonds shall publish:

a) the structure of covered bonds, maturity thereof, the number and volume of the covered bond issuance, the currency and the interest rates thereof,

b) the value, type and asset ratio in the cover pool and important changes in it,

c) the volume according to the currency of the monetary nominal value, weighted average residual maturity, weighted average interest rate and weighted average value of primary assets security indicator in the cover pool,

d) the proportional geographical distribution of the primary assets and real estate which secure them and constitute the cover pool,

e) other documents and information related to the covered bonds programme.

Duties of the administrator:

Until 30 April of a current calendar year, the administrator shall submit to the NBS a report on the covered bonds programme covering the preceding year and containing:

a) number, volume, revenues and maturity dates of the issued covered bond issues,

b) volume of assets in the cover pool and covered bonds issued in euros or foreign currency,

c) structure of the cover pool,

d) coverage indicator,

e) average value, maturity of the primary assets, as well as the fixation period and weighted interest rate,

f) volume of failed and eliminated mortgage loans from the cover pool,

g) reasons of material changes in replenishing, or elimination of assets from the cover pool,

h) structure of immovable property securing the primary assets, broken down by family houses, flats, building land and unfinished structures,

i) the relative situation of immovable properties securing the primary assets according to the territorial division of the Slovak Republic and the LTV ratio,

j) method for calculation and amount of the estimated liabilities or costs incurred by the bank,

k) methodology and results of stress tests,

l) activities of the administrator, and the supervision carried out by the NBS in relation to the covered bonds programme,

m) other factors related to the activities of the bank.

The bank shall publish this report on its website.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The NBS shall appoint the covered bonds programme administrator and his deputy, who shall supervise compliance with the conditions related to the covered bonds programme set out in the Act on Banks and other generally binding legal regulations.

The administrator shall perform his activities individually, independently and impartially. Prior to any issue of covered bonds, the administrator is required to prepare a written certificate evidencing that coverage of those covered bonds is secured in line with the legislation.

The administrator checks and verifies whether:

a) the aggregate nominal value of the issued covered bonds, and the corresponding interest revenues, is covered by the assets comprising the cover pool at least at the coverage indicator value,

b) the bank complies with the requirements for structure of the cover pool,

c) the assets comprising the cover pool and registered in the register of covered bonds comply with the Act on Banks,

d) the agreement dealing with the securing derivatives comprising the cover pool contains provisions pursuant to Section 73(5),

e) the estimated liabilities are justified,

f) the immovable property securing the primary assets meet the legal requirements,

g) the bank keeps the register of covered bonds and documentation serving as basis for making entries in the register separately from other documents, and whether the bank has secured the same against misuse, destruction, damage, theft or loss,

h) the bank keeps in its accounting records separate analytical records of related transactions.

The bank must allow the administrator to perform his activities; in particular to allow him to inspect accounting records, documents relating to the cover pool and covered bonds programme. Activities of the administrator and his deputy are subject to supervision by the NBS.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

In the event the bank issuing covered bonds is declared bankrupt (such declaration being made in form of a resolution of a bankruptcy court and made known to all creditors via publication in the Official Journal), the assets and asset values comprised in the cover pool are fully segregated from the general insolvency estate of the bankrupt bank. The trustee of the bankrupt bank is obliged to manage those assets and asset values as a special separate bankruptcy estate for the benefit of the covered bond holders having, by operation of law, a preferential claim and first priority perfected security interest in the cover pool. A segregated nature of the cover pool is further emphasised by the legislation in two more aspects.

Firstly, only the assets and asset values included in the covered bond register may serve as collateral for the benefit of the covered bond holders and be used to satisfy their claims in the event of the issuing bank's bankruptcy.

Secondly, special procedures must be observed by the bankruptcy trustee regarding the administration and management of the overall covered bonds programme upon declaration of the issuer's bankruptcy. These procedures seek the ultimate purposes of extending the original maturities of the covered bonds in the event of bankruptcy as well as postponement of immediate acceleration of the covered bonds upon the declaration of bankruptcy. In particular, it is the responsibility of the bankruptcy trustee to asses, with a due and professional care, whether further administration of the covered bonds programme is feasible and does not result in reduction of the covered bond holders' claims.

Once the trustee ascertain that a possible reduction may threaten, he shall cooperate with the special covered bonds programme administrator in the process of notification to the NBS regarding the intention to transfer the entire covered bonds programme to one or more solvent banks. The performance of the transfer of the covered bonds programme is subject to the prior approval by the NBS and must be completed within one year following the date of its notification. The NBS may grant extension to the original period by additional one year in case the transfer has failed to be executed within the original one year's period and it can be presumed that its later performance will result in higher degree of satisfaction of the covered bond holders' claims. During both original as well as additional period for the transfer, the issuer is obliged to make postponement of payments of principals and is allowed to make only yield payments pertaining to the covered bonds within their original maturities.

The payments of principals are allowed only in respect of the issuances with original maturities falling due within the first month of the original period for the transfer of the covered bonds programme. For the issuances which mature later but still anytime during the original or additional period for the transfer of the covered bonds programme, the payments of principals are postponed until the expiry date of the relevant period. In addition, there is also no acceleration of the issuer' liabilities relating to the covered bonds during the period for the transfer. The mechanics of the transfer adopts the features identical to the sale of the company's enterprise or its part on a solvent basis ("predaj podniku") and shall include the transfer and assumption of the whole portfolio of claims and liabilities pertaining to the covered bonds and to the assets in the cover pool from the bankrupt issuer to one or more transferee banks. If the trustee has failed to successfully transfer the entire portfolio within the relevant period, then the acceleration of the issuer's liabilities relating to the covered bonds is triggered immediately following after the trustee has terminated the operation of the covered bond issuer's business.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Slovak "Krytý dlhopis" comply with the requirements of Article 52(4) UCITS as well as of Article 129 of Regulation (EU) No. 575/2013.

The listed covered bonds are eligible for repo transactions with the central bank.

X. ADDITIONAL INFORMATION

Issuers: Československá obchodná banka, Prima banka Slovensko, Slovenská sporiteľňa, Tatra banka, VÚB – Všeobecná úverová banka, Unicredit Bank – UniCredit Bank Czech Republic and Slovakia.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/42/Slovakian_Covered_Bonds

Covered Bond Label : Prima banka Slovensko, a.s.

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.35 SLOVENIA

By Franz Rudolf, UniCredit Bank AG

I. FRAMEWORK

Since 2012, covered bonds in Slovenia are governed primarily by the Mortgage Bond and Municipal Bond Act (Official Gazette of the Republic of Slovenia no. 10/12 and no. 47/12; "the Covered Bond Act"). In addition, general rules of the Financial Instruments Market Act (Official Gazette of the Republic of Slovenia no. 67/07 and amendments), the Banking Act (Official Gazette of the Republic of Slovenia no. 25/15, 44/16 and 77/16), the Resolution and Compulsory Dissolution of Credit Institutions Act (Official Gazette of the Republic of Slovenia no. 44/16 and 71/16) and the Consumer Credit Act (Official Gazette of the Republic of Slovenia no. 77/16) are to be applied (Article 6 of the Covered Bond Act).

The Bank of Slovenia[1] ("BoS") issued further relevant by-laws, namely the Regulation on the Conditions for Obtaining an Authorisation for Issuing Mortgage and Municipal Bonds, the Regulation on Matching the Cover Pool with the Outstanding Mortgage and Municipal Bonds, the Regulation on the Conditions for Inclusion of Derivative Instruments in the Cover Pool of Mortgage and Municipal Bonds and the Regulation on the Documentation for Proving the Fulfilment of Conditions for the Cover Register Administrator Appointment (all four regulations published in the Official Gazette of the Republic of Slovenia no. 17/2012). In addition, the Governing Board of the BoS adopted Recommendations for Managing the Records of the Cover Register as of 28 February 2012.

Although the Covered Bond Act altogether with the Regulations of the BoS represents a modern and suitable legal framework for the issuance of covered bonds in Slovenia, there have been no covered bond issuances from the Slovenian market yet.

II. STRUCTURE OF THE ISSUER

Covered bonds can be issued by banks holding a valid banking license and which are authorised from the Bank of Slovenia to issue mortgage covered bonds or public sector covered bonds.

In order to obtain a special license for the issuance of covered bonds, an issuing bank must prove that it fulfils the following conditions, set out in Article 9 of the Covered Bond Act:

> Suitable risk management procedures and instruments associated with the issuance of covered bonds as well as with the cover pool assets;

> Adequate number of qualified staff and ability to be organisationally and technically qualified to issue mortgage or public sector covered bonds and to finance the real property, owned by entities, governed by public law, and other legal entities;

> Separation of services related to the issuance of covered bonds and to the covered assets from the bank's other operations;

> Rules for maintaining the cover register;

> Rules for property valuation and at least one independent valuer.

III. COVER ASSETS

Only receivables from mortgage loans and loans that are secured by an eligible state or a local community, that are compliant with provisions of the Covered Bond Act, can be considered as the cover assets for covered bonds.

1 The Central Bank of the Republic of Slovenia.

The cover assets of mortgage covered bonds can consist of receivables arising from (i) loans secured by a mortgage on residential property that is located in the EEA or Switzerland, (ii) loans secured by a mortgage on commercial property that is located in the EEA or Switzerland (up to 20% of the cover assets).[2]

The cover assets of public sector covered bonds can consist of receivables arising from (i) loans granted to or debt securities issued by an eligible state[3] or an eligible local community[4], (ii) loans granted to or debt securities issued by another legal entity provided that the obligations in respect to such loans or securities are irrevocably and unlimitedly guaranteed by an eligible state.

Up to a maximum of 20% of the cover pool can be provided by substitute cover assets. Eligible assets are (i) balances on the accounts with the BoS, (ii) investments in marketable debt securities issued or guaranteed by an EEA member state and Switzerland or their central banks or ECB, or (iii) investments in other debt securities issued by EIB, EBRD or any other bank, provided that they are used as the collateral for receivables in accordance with the ECB's criteria, published in the Articles of Association governing the European System of Central Banks (Article 20 of the Covered Bond Act).

Additionally, an issuer can also include derivative financial instruments in the cover pool (up to 12%) in order to reduce/hedge the market risks on its assets, in particular the risks associated with interest rate and currency mismatch.

Finally, an issuer must take into account also the following limitations according to Article 25:

> Up to 5% of the cover assets can consist of mortgage loans secured by a mortgage on residential property under construction;

> Up to 10% of the cover assets can consist of mortgage loans secured by a mortgage the registration of which is still pending, provided that the process of registration in the Slovenian land register is completed within 12 months from the date of filing the application;

> Up to 20% of the cover assets can consist of mortgage loans granted to an individual or to legal entities which are considered as a group of related parties in accordance with the Banking Act; nevertheless, the bank's exposure to these entities must not exceed the maximum admissible exposure set out in the Banking Act.

IV. VALUATION AND LTV CRITERIA

The level of receivables from mortgage loans that can be taken into consideration for the cover assets must not exceed: (i) 80% of the mortgage lending value of mortgaged property or, in case the general market value is used, 50% of the general market value of property for loans secured by mortgage on residential properties; (ii) 60% of the mortgage lending value of mortgaged property for loans secured by mortgage on commercial properties. When the level of receivables from mortgage loans exceeds the above restrictions, only an appropriate portion of the loan can be considered as eligible cover assets (Article 28 of the Covered Bond Act).

Generally, a valuation of residential and commercial property is based on the mortgage lending value.[5] However, if the latter cannot be determined, the market value is used instead. It is important to note that a valuation must be performed by an independent property valuer and in compliance with the international property valuation standards, adopted by the IVSC (Article 26 (4) of the Covered Bond Act).

2 As stipulated in Article 19 (3) of the Covered Bond Act, only receivables from first ranking mortgage loans or lower ranking mortgage loans provided that the issuer also holds the prior-ranking claims are eligible for mortgage cover pools.

3 An eligible state is (i) the Republic of Slovenia and (ii) an EEA member state and (iii) Switzerland, whose credit rating is equal to or higher than the Eurosystem's credit rating threshold, established by the BoS.

4 An eligible local community is a local community (i) in the Republic of Slovenia and (ii) in an EEA member state and (iii) Switzerland, whose credit rating is equal to or higher than the Eurosystem's credit rating threshold, established by the BoS.

5 The methodology for determining the mortgage lending value is established by property valuation rules, adopted by each individual issuer (Articles 26 and 29 of the Covered Bond Act).

However, as regards residential property, also the general market value, estimated by using the mass appraisal methods, can be used (Article 27 of the Covered Bond Act).

A value of property is determined individually for each real property. During the property mortgage loan term, an issuer must regularly monitor the value of mortgaged property and re-assess this value at least once a year for commercial property and at least once every three years for residential property. In addition, a need for a new valuation of the property also arises when a value of real property and/or general market prices of real properties in the area where the real property is located drop substantially (by more than 20%), or when a borrower is late in meeting his obligations under the mortgage loans by more than 90 days (Article 30 of the Covered Bond Act).

V. ASSET – LIABILITY MANAGEMENT

Article 22 of the Covered Bond Act states, that covered bonds can only be issued to the level that still ensures full coverage of liabilities stemming from outstanding bonds and derivative financial instruments by means of cover assets at all times and in at least the same aggregate nominal amount. Additionally, the matching of cover assets with the liabilities stemming from covered bonds and derivative financial instruments must be at all times ensured also according to the present value principle[6]. In this case, the cover assets' present value must exceed the present value of liabilities stemming from covered bonds by the minimum legal overcollateralisation requirement of 2%. Furthermore, cover assets need to be matched with liabilities stemming from issued covered bonds and derivative financial instruments also in terms of maturities, interest rates and currency exposure.

The compliance with the above–mentioned conditions must be verified at least once a month. In addition, stress tests (e.g. tests of the impact of a change in interest rates and foreign exchange rates) must be performed monthly too. If the present value of cover assets does not exceed the present value of covered bonds by at least 2%, an issuer must immediately start with the activities to increase cover assets accordingly (Articles 4-7 of the Regulation on Matching the Cover Pool with the Outstanding Mortgage and Municipal Bonds).

Additionally, an issuer must compare the amount of matured receivables from the cover assets entered in the cover register with the amount of matured liabilities stemming from the issued covered bonds and from the derivative financial instruments entered in the cover register over the next 180-day period on a daily basis. Subsequently it must provide the coverage in a form of the substitute cover assets following the comparison of the largest calculated difference between the matured liabilities and the matured receivables (the so-called cover assets reserves) (Article 23 of the Covered Bond Act).

VI. TRANSPARENCY

According to the Covered Bond Act (Article 52), issuers are obliged to report to the Bank of Slovenia an extract from the cover register on a quarterly basis. In addition, the issuer's annual report shall also contain information on the cover pool assets, e.g. the number and category of mortgage loans or the area in which the real estate property is located.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Cover register

Each issuing bank needs to keep a cover register (Article 37 (1) of the Covered Bond Act). In case of issuing both mortgage and public sector covered bonds, a bank must keep two separate cover registers (Article 51 (2) of the Covered Bond Act).

6 In case of the derivative financial instruments the fair value principle is used instead of the present value principle (Article 3 (3) of the Regulation on Matching the Cover Pool with the Outstanding Mortgage and Municipal Bonds).

The cover register contains the receivables and investments that represent cover assets for the issued mortgage and municipal bonds (public sector covered bonds) as well as the record of all mortgage and municipal bonds issued, all of them clearly individualised. Moreover, it must reveal the nominal value of the cover assets and mortgage/municipal bonds in circulation at all times (Article 37 (2-4) of the Covered Bond Act).

Cover register administrator

A cover register administrator ensures that the cover register is maintained in accordance with the provisions of the Covered Bond Act and its related Regulations. Only a person that is a certified auditor or an otherwise qualified expert that was previously being granted a licence from the BoS to perform the tasks of a cover register administrator can be appointed as a cover register administrator. Moreover, such a person must also be independent from the issuer (Articles 39 and 40 of the Covered Bond Act).

The duties and obligations of a cover register administrator are as following (Articles 38 (1-3), 41 and 42 of the Covered Bond Act):

- To ensure that the cover assets provide a sufficient coverage for the total value of the covered bonds in circulation and liabilities stemming from derivative financial instruments and to notify the BoS without any delay if he considers such a coverage to be unsatisfactory;
- To ensure that the assets are recorded in the cover register in accordance with the Covered Bond Act;
- Prior to the issuance of covered bonds, to confirm that the cover assets provide a sufficient and adequate coverage for covered bonds;
- To give consent to the issuer's request for a cancellation of a mortgage in the Slovenian land register that serves as a security for the claims, entered as a coverage in the cover register;
- To regularly notify the BoS of its findings pursuant to the Covered Bond Act;
- To examine the books of account and other documents of the issuer that could be in any way associated with covered bonds and cover assets;
- To require from an issuer to keep him regularly informed of the performance of the cover asset-related repayments and any other changes, associated with these assets.

Replacement of inadequate assets

A cover register administrator must require from an issuer to replace receivables from inadequate mortgage loans with receivables from other mortgage loans or other suitable assets if (i) during the term of the mortgage loan the value of real property declines to such an extent that the value of the outstanding mortgage loan exceeds the legally prescribed level of mortgage lending value or the real property's general market value; (ii) the borrower falls behind in meeting its payment obligations under the loan agreement for more than 90 days; or (iii) the time limit for entering the mortgage in the Slovenian land register expires.

In case of a decline in the real property's general market value an issuer may nonetheless supplement existing receivables from mortgage loans by receivables from other mortgage loans or other suitable assets to the minimum extent of the deficit in the cover assets resulting from a decline in the real property's value (Article 31 of the Covered Bond Act).

Role of the BoS

The BoS carries out a constant supervision on the implementation of the Covered Bond Act (Article 53 of the Covered Bond Act). In addition, it grants and withdraws the licence, given to a bank prior to the issuance of covered bonds, as well as it grants and withdraws the license granted to a cover register administrator.

An issuer is required to send to the BoS an extract from the cover register, signed by a cover register administrator, every three months (Article 52 (1) of the Covered Bond Act). Similarly, a cover register administrator and a cover assets trustee have to report to the BoS both on a regular basis and on request.

VII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Segregation of cover assets

Cover assets, entered in the cover register, remain the property of an issuer and are intended primarily for the payment of obligations under covered bonds and derivative instruments that are included in the cover assets (Article 3 (1) of the Covered Bond Act). Moreover, (substitute) cover assets must be free from any encumbrances and cannot be used or pledged for any other purpose (Articles 19 (4) and 20 (2) of the Covered Bond Act).

The issuer must further ensure that services related to granting mortgage loans and loans to entities governed by public law as well as services related to the issuance of mortgage and municipal bonds are conducted separately from the bank's other operations. This encompasses also separate keeping of the books of account, other records and documents (Articles 9 (1) and 10 of the Covered Bond Act).

Only the obligations of the issuer under covered bonds and derivative financial instruments can be enforced against the cover assets (Article 37 (5) of the Covered Bond Act). The law also limits the type of claims that can be – under certain conditions – subject to set-off rights of debtors and their guarantors whose liabilities are included in the cover pool (Article 37 (6) of the Covered Bond Act).

Bankruptcy remoteness of covered bonds

Cover assets are part of the general estate of a bank as long as an issuer is solvent. Upon the commencement of the issuer's insolvency proceedings[7], the cover assets are automatically separated from the issuer's general insolvency estate. Moreover, covered bond holders and creditors under derivative financial instruments have a primary secured claim (costs included) against all assets in the cover pool. However, in their mutual relationship holders of covered bonds and creditors under derivative financial instruments have the same order of priority (i.g. rank pari passu) (Articles 44 (1, 3) and 45 (1, 2) of the Covered Bond Act).

It is important to note that covered bonds and derivative financial instruments do not automatically accelerate as soon as an issuer is insolvent. On the contrary, they are repaid at the time of their contractual maturity. On the proposal of the BoS the insolvency court appoints a cover assets trustee (who must not be the same person as an issuer's insolvency administrator) and he deals with the management and disposal of the cover assets to the extent that is necessary for the continuous timely payment of obligations under covered bonds and derivative financial instruments. Moreover, a covered assets trustee is entitled to obtain liquidity loans in order to ensure continuous compliance with the payment obligations under covered bonds and derivative financial instruments for what no approval of the insolvency court is needed. Only if the redemption of covered bonds prior to their maturity will result in better terms for repayment of the issuer's obligations under covered bonds and derivative financial instruments, a cover assets trustee may ask the insolvency court for approval on the acceleration (Articles 18 and 47 (1-3) of the Covered Bond Act).

In case that the cover assets prove insufficient to ensure the continuous payment of obligations under covered bonds and derivative financial instruments, a separate insolvency proceeding is initiated against the cover assets on the request of the BoS. Moreover, if such separate insolvency proceedings still do not result in a full payment of the obligations under covered bonds and derivative financial instruments, the holders of covered bonds and the creditors under derivative financial instruments are entitled to lodge a claim for the remaining part of their receivables in the issuer's general insolvency proceedings (Article 49 (1-3) of the Covered Bond Act).

7 Similarly, in case of the withdrawal of the licence to issue covered bonds (Article 15 of the Covered Bond Act).

It should be added that an issuer's insolvency administrator is entitled to request the cover assets trustee to transfer to the issuer's insolvency estate a certain part of the cover assets that will, beyond any doubt, not be required for the payment of obligations under covered bonds and derivative financial instruments, included in the cover pool. The final decision on the transfer is made by the insolvency court. Furthermore, when all the obligations under covered bonds and derivative financial instruments have been paid, a cover assets trustee nevertheless transfers the remainder of the cover assets to the issuer's insolvency estate (Article 47 (5-7) of the Covered Bond Act).

Finally, the cover assets trustee can transfer the entire cover pool and all obligations arising out of the issued covered bonds to other issuer by a way of contract. A full transfer must be authorised by the BoS (Article 48 of the Covered Bond Act).

VIII. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

With the new Banking Act, adopted in May 2015, the Regulation on the Calculation of Capital Requirements for Credit Risk under the Standardised Approach for Banks and Savings Banks and the Regulation on the Calculation of Capital Requirements for Credit Risk under the Internal Ratings Based Approach for Banks and Savings Banks (both published in the Official Gazette of the Republic of Slovenia no. 135/06) ceased to be valid. Since then, the risk-weighting of covered bonds in Slovenia is regulated directly by Capital Requirements Regulation (CRR).

The provisions of the Covered Bond Act fall within the criteria of Article 129 (1) CRR as well as within the criteria of Article 52 (4) of the UCITS Directive.[8]

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/110/Slovenian_Covered_Bonds

8 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.36 SOUTH KOREA

By Hoin Lee, Kim & Chang and Frank Will, HSBC & Chairman of the ECBC EU Legislation Working Group

I. FRAMEWORK

Efforts to create a covered bond market in Korea

The Covered Bond Act of Korea (the "Covered Bond Act") was passed by the National Assembly on 19 December 2013 and came into effect on 15 April 2014. Prior to the enactment of the Covered Bond Act, domestic banks in Korea had been looking at covered bonds as a potential alternative source of funding and the Korea Federation of Banks, a major association of banks in Korea, set up a task force team in 2008 to pursue the introduction of covered bonds in Korea, including by way of a dedicated covered bond statute. Even prior to the Korea Federation of Banks task force team, market participants were looking into alternative structured covered bond structures utilising Korea's Act on Asset-Backed Securitisation (the "ABS Act").

Such efforts eventually led to Kookmin Bank's offshore covered bond issuance in May 2009 (the "KB Structured Covered Bonds"). Kookmin Bank developed a structure on the basis of the securitisation techniques under the ABS Act and the Trust Act that enabled the relevant asset pool to be "ringfenced" and effectively granted dual-recourse to its investors through contractual arrangements. The KB Structured Covered Bonds were the first covered bonds issued out of Korea and the Asia-Pacific region.

Separately, in July 2010, the Korea Housing Finance Corporation ("KHFC") issued the second covered bond out of Korea and the first statutory covered bond transaction out of Asia. KHFC utilised the "mortgaged-backed bonds" (the "KHFC Covered Bonds") under the Korea Housing Corporation Act (the "KHFC Act") in issuing the covered bonds. Mortgaged-backed bonds are economically similar to covered bonds because the bond holders have a statutory priority right over a pool of assets segregated from the other assets of KHFC.

The successful issuance of the KHFC Covered Bonds in 2010 stimulated new interest for covered bonds in Korea, with KHFC Covered Bonds being considered as a potential alternative to traditional residential mortgage backed securities (RMBS) transactions as a funding source for Korean mortgage lenders. Several follow-on transactions have been completed that utilise KHFC as the issuer and the dual recourse feature of mortgage-backed bonds under the KHFC Act. KHFC issued (i) EUR 500mn of euro denominated social covered bonds in October 2018, (ii) EURO 500 mn of ECBC Covered Bond-labeled social covered bonds with a AAA rating in June 2019 and (iii) EUR 1 bn of ECBC Covered Bond-labeled social covered bonds with a AAA rating in February 2020. KHFC's June 2019 social covered bond offering was the first Euro denominated social bond issued by a Korean issuer.

Following the enactment of the Covered Bond Act, on 12 June 2015, Kookmin Bank became the first bank in Korea to set up a global covered bond programme pursuant to the Covered Bond Act, which it listed on the Luxembourg Stock Exchange. The KB Covered Bond Programme was the first covered bond programme by an Asian financial institution to be listed and obtained ratings of AAA and Aaa from Fitch and Moody's, respectively. These ratings were higher than Kookmin Bank's ratings (A1 at that time) and even Korea's sovereign ratings (AA, Aa2). This enabled Kookmin Bank to procure funds from the offshore market at reduced costs in subsequent issuances. In October 2015, Kookmin Bank issued the first covered bonds under the KB Covered Bond Programme followed by a second transaction in February 2016 and a third transaction in December 2018. In light of the successful issuances by Kookmin Bank, other commercial banks began showing increased interest in covered bonds as an alternative, long-term funding source.

On January 31, 2019, the Financial Service Commission ("FSC") announced several measures to stimulate the use of covered bonds as a means to stabilise household debts. The measures included the following: 1) reducing covered bond issuance expenses by exempting registration fees payable to the Korean Financial Supervisory Service, 2) expanding the current limit of 1% in recognising funds raised from covered bond issuances with a maturity of five years or more as Korean-won deposits when calculating loan-to-deposit ratios, 3) reducing the contribution fee to the Housing Credit Guarantee Fund on the issuance of covered bonds, and 4) (effective in 2022) applying lower risk weights in calculating BIS or RBS when a bank or an insurance company invests in covered bonds. These governmental efforts appear to have further catalysed the domestic covered bond market. For example, on 14 May 2019, Kookmin Bank issued a KRW 400 bn covered bond with a five-year maturity and a KRW 100bn covered bond with a seven-year maturity pursuant to the Covered Bond Act, both of which represented tenures previously not seen in the domestic covered bond market. Four Korean commercial banks issued to date Korean won covered bond in a total amount of KRW 3,720 bn. Besides these banks, other domestic banks are also in the process of issuing covered bonds.

II. STRUCTURE OF THE ISSUER

1. KHFC Act

Eligible issuer

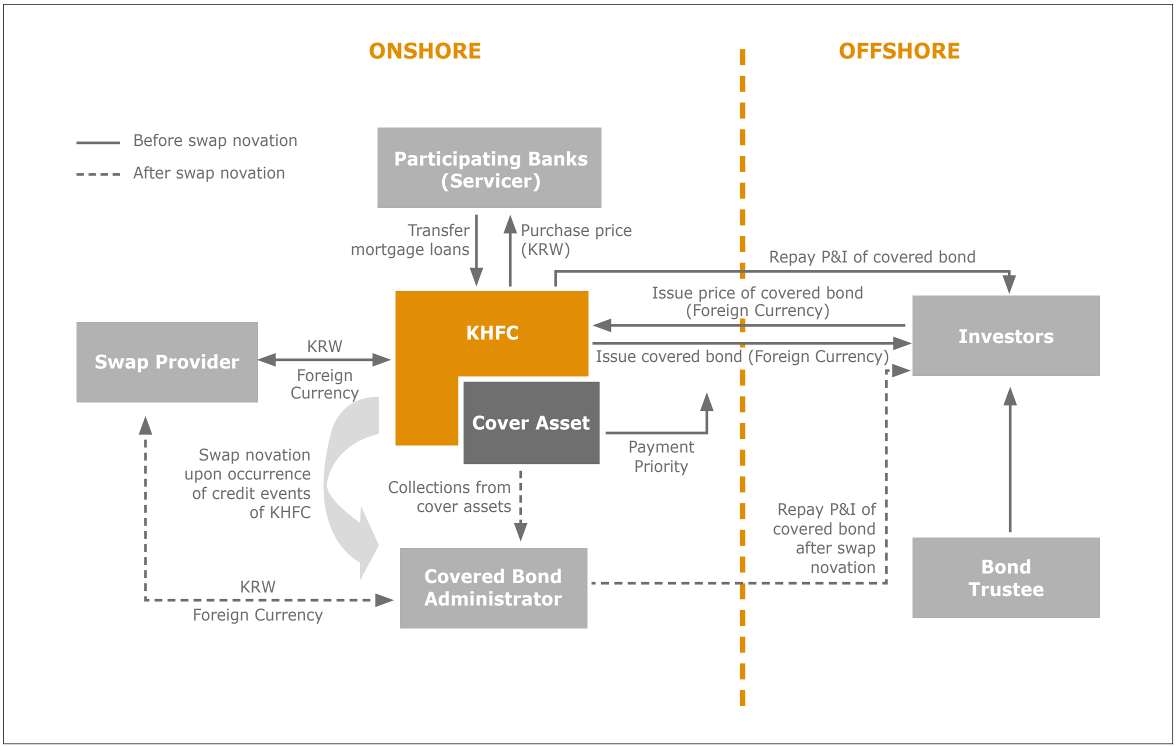
KHFC, which is wholly owned by the Korean government and the Bank of Korea, is the only eligible issuer of KHFC Covered Bonds. Pursuant to Article 31 of the KHFC Act, the holders of KHFC Covered Bonds have a statutory priority right of payment from a separately managed pool of mortgage loans designated as the underlying collateral for KHFC Covered Bonds (the "KHFC Cover Pool"). In addition, if principal and interest on a KHFC Covered Bond are not fully paid out of the KHFC Cover Pool, it can be paid from the general assets of KHFC. KHFC issues these bonds without transferring the cover assets to a separate legal entity and the bankruptcy remote cover assets are left on KHFC's balance sheet. The investors have dual recourse in respect of the KHFC Covered Bonds: (a) a senior unsecured claim to KHFC prior to the occurrence of an issuer event of default or at maturity; and (b) a statutory priority right of payment over the KHFC Cover Pool upon the occurrence of an issuer event of default.

In the case of KHFC Covered Bonds issued offshore, KHFC enters into a cross currency swap agreement and an interest rate swap agreement with the swap providers, pursuant to which KHFC will deliver KRW interest periodically and principal at maturity to the swap providers in exchange for foreign currency payments. The swap providers pay foreign currency denominated interest periodically and principal at maturity. The swap agreement is subject to an automatic swap novation mechanism (the "Swap Novation") in which the swap providers, KHFC, and the swap delegate entered into a tripartite automatic novation agreement at the closing date, which states that the swap agreement will be automatically terminated with KHFC and novated to the swap delegate upon the occurrence of certain events of default regarding KHFC, and that the mark-to-market valuation of the swap agreement as of the novation date will not be exchanged between KHFC and the swap providers or between KHFC and the swap delegate.

Subsequent to such events of default, the swap delegate will pay KRW generated from the KHFC Cover Pool to the swap providers in exchange for the foreign currency denominated payments, and the swap providers will pay the foreign currency denominated interest periodically and principal at maturity.

The following diagram illustrates the structure of the KHFC Covered Bonds transaction.

FIGURE 1: KHFC COVERED BONDS TRANSACTION STRUCTURE



Source: Kim & Chang

Issuance limit

KHFC may issue KHFC Covered Bonds up to 50 times of its paid-in equity capital.

2. Covered Bond Act

Eligible issuer

Eligible issuers of covered bonds under the Covered Bond Act (the "Covered Bonds") include (i) banks licensed and established under the Bank Act of Korea, (ii) the Korea Development Bank, (iii) the Export-Import Bank of Korea, (iv) the Industrial Bank of Korea, (v) Nonghyup Bank, (vi) Suhyup Bank, or (vii) KHFC. Eligible issuers of Covered Bonds, however, must have equity capital of not less than KRW 100 bn, BIS ratio of not less than 10%, and appropriate funding and operation structures and risk management procedures, etc.

Issuance limit

The Covered Bond Act prescribes that eligible issuers may issue Covered Bonds up to the ceiling set by the Presidential Decree of the Covered Bond Act (the "Presidential Decree") which shall not exceed 8% of its total assets as of the end of the fiscal year immediately preceding the scheduled date of issuance and the Presidential Decree limits this to 4% of its total assets as of the end of the fiscal year immediately preceding the scheduled date of issuance. The FSC, as the Korean financial regulator, reserves the right to restrict this further to 2% of its total assets taking into consideration various factors, such as collateralisation ratio and financial condition including liquidity position.

III. COVER ASSETS

1. KHFC Act

The mortgage loans in the KHFC Cover Pool are acquired from certain Korean financial institutions that function as the originating banks. The individual mortgage loans included in the KHFC Cover Pool may change from time to time as a result of substitutions by KHFC, and KHFC is responsible for ensuring that the mortgage loans are properly serviced and delegates its servicing responsibility to the originating banks, with each originating bank servicing those mortgage loans originated and sold by it to KHFC.

2. Covered Bond Act

The cover pool (the "Cover Pool") shall comprise of (1) the Underlying Assets, (2) the Liquid Assets and (3) Other Assets. The "Underlying Assets" shall include (i) residential mortgage loans with 70% or lower loan-to-value (LTV) ratio and first priority mortgage, obligors of which are not subject to insolvency proceedings, (ii) loan receivables against the government, a local government or a corporation incorporated under the special laws, Korean Treasury bonds, municipal bonds or bonds issued by a corporation incorporated under the special laws, (iii) mortgage loans secured by ships or aircraft with 70% or lower LTV ratio and is insured for an amount in excess of 110% of the sum of (a) the aggregate outstanding balance of the relevant loan and (b) any other outstanding debt of the issuer that are at least *pari passu* with such loan and (iv) asset backed securities issued under the ABS Act and KHFC Covered Bonds and residential mortgage backed securities issued pursuant to the KHFC Act. The following limitations are applicable to the residential mortgage loans comprising the Underlying Assets: (x) at least 20% must have a debt-to-income (DTI) ratio of 70% or less, (y) at least 30% must be fixed rate loans, and (z) if there are residential mortgage loans of which 50% or more of their outstanding principal balance may be set off against the relevant issuer, such residential mortgage loans should comprise 10% or less of all residential mortgage loans. The "Liquid Assets" shall comprise of cash, certificates of deposit with a maturity of no more than 100 days issued by financial companies other than the issuer of the Covered Bonds, bonds issued by any government as prescribed by the FSC, financial instruments issued by foreign financial companies as prescribed by the FSC similar to the certificates of deposit referred to above and deposits and term deposits at either domestic or foreign financial companies with maturity of 3 months or less. Finally, "Other Assets" shall comprise of collections and other property rights acquired from the Underlying Assets and the Liquid Assets and the claims acquired from derivatives transactions executed in order to hedge foreign exchange rate or interest rate risks and other risks associated with the cover pool pursuant to the Covered Bond issuance plan.

IV. VALUATION AND LTV CRITERIA

1. KHFC Act

There is no statutory standard for valuation of residential mortgage loans that are included in KHFC Cover Pool. Instead, the valuation methods are set forth in individual transaction documents for the KHFC Covered Bonds which value residential mortgage loans between 100% and 0%, depending on the length of delinquency.

2. Covered Bond Act

LTVs for residential mortgage loans as well as loans secured by ships or aircrafts in the Cover Pool shall be 70% or lower. Valuation shall be carried out by reference to the closing market price of the relevant day on the securities exchange. In cases where no reliable market prices are available on the relevant day, book value, par value, purchase price, transaction price and price provided by an entity which satisfies statutory requirements shall be taken into account, alongside the prevailing exchange rate at the time of valuation. Where derivative transactions have been entered into for the purpose of hedging exposure to movements in foreign currency exchange rates, the exchange rates as specified in such derivative transactions themselves shall be used, and non-eligible assets and derivative transactions shall be valued at "0".

V. HEDGING AND ASSET – LIABILITY MANAGEMENT

1. KHFC Act

In the case of KHFC Covered Bonds issued offshore, the underlying residential mortgage loans are denominated in KRW but the KHFC Covered Bonds are issued in foreign currency and KHFC entered into swap agreements to hedge the resulting currency risk. This swap agreement is subject to the Swap Novation described above. There are no statutory regulations on overcollateralisation or excess yield of collateralised assets. However, the transaction documents in previous KHFC Covered Bonds have required the KHFC Cover Pool to satisfy an asset coverage test and the failure for the KHFC Cover Pool to satisfy the foregoing test for a certain period of time becomes an issuer event of default which in turn triggers the management of the KHFC Cover Pool to be transferred to a separately appointed swap delegate, in addition to the above-mentioned Swap Novation.

2. Covered Bond Act

The total value of the Cover Pool shall be equal to or more than 105% (the "Required Overcollateralisation Ratio") of the total value of the covered bonds and the liquid assets shall not exceed 10% of the total outstanding amount of the Cover Pool. The details of the valuation standard and method, etc. for each type of assets comprising the cover pool are prescribed by the Presidential Decree. The issuer shall prepare and maintain separate books for the management of the Cover Pool. If the total value of the Cover Pool is likely to fall below the Required Overcollateralisation Ratio or cover assets fail to satisfy the Cover Pool eligibility criteria set forth in the Covered Bond Act (the "Cover Asset Eligibility"), the issuer shall add or substitute the Underlying Assets and Liquid Assets without delay in order to comply with the Required Overcollateralisation Ratio and the Cover Asset Eligibility. Unlike the KHFC Act, the claims acquired from derivatives transactions executed in order to hedge foreign exchange rate or interest rate risks and other risks associated with the Cover Pool pursuant to the Covered Bond issuance plan are included in the Cover Pool as described above and the swap provider also has a priority right of payment from the Cover Pool under the Covered Bond Act. As such, we do not expect there to be a particular need to novate the relevant swap agreement to a third party.

VI. TRANSPARENCY

1. KHFC

To issue KHFC Covered Bonds, KHFC must register a securitisation plan with the FSC and this securitisation plan is available to the public on the FSS website. Amendments to the securitisation plan after the terms and conditions of the KHFC Covered Bonds are confirmed must also be registered with the FSC.

2. Covered Bond Act

Any eligible issuer that intends to issue Covered Bonds must register the Covered Bond issuance plan and details of the Cover Pool with the FSC. The issuer must also register amendments to the issuance plan or the matters concerning the Cover Pool, while minor changes shall be reported to the FSC within seven days from the date of such change.

The issuer is required to establish and monitor at least on a quarterly basis separate risk management standards and procedures relating to the issuance and redemption of the Covered Bonds. The issuer is also obligated to disclose on its website on a quarterly basis the result of risk management monitoring, the report prepared by the Cover Pool monitor and other information necessary. The FSC may request data concerning business or properties of the issuer and its administrator and the Cover Pool monitor, or investigate such business and properties if necessary, for protecting the Covered Bond investors.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

1. KHFC Act

There are no explicit provisions in the KHFC Act on the KHFC Cover Pool monitor but independent third parties are appointed to supervise and monitor KHFC's management of the KHFC Cover Pool. For example, an accounting firm has been appointed as the cover pool monitor in previous KHFC Covered Bond issuances to be responsible for confirming whether the KHFC Cover Pool minimum maintenance requirements have been satisfied. In addition, the KHFC Covered Bond administrator is appointed in advance for the management of the Cover Pool in order to protect the KHFC Covered Bond holders upon occurrence of any issuer event of default including a bankruptcy event of KHFC.

2. Covered Bond Act

The issuer shall appoint with the approval from the FSC a Cover Pool monitor to monitor the eligibility of the Cover Pool independently. The Cover Pool monitor shall be (i) a person who qualifies as a bond administrator under the Korean Commercial Code, (ii) KHFC (excluding the case where the issuer is KHFC) or (iii) a corporation with equity capital of KRW 1 bn or more that has five or more administration personnel necessary for the performance of duties as a Cover Pool monitor including two or more experts such as lawyers, certified public accountants or certified public appraisers and one or more persons with experience in business related to Covered Bonds.

The Cover Pool monitor is authorised to take any actions in court or otherwise necessary for the management, maintenance and disposition of the Cover Pool. The Cover Pool monitor is obligated to submit on a quarterly basis a report to the FSC within 30 days of the end of each quarter on the performance of its duty as a Cover Pool monitor and provide it to the issuer and, upon request, the Covered Bond investors and other parties, as described below, who have a priority right of payment from the registered Cover Pool.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

1. KHFC Act

Articles 30 and 31 of the KHFC Act state that (i) KHFC may issue the KHFC Covered Bonds with a statutory priority right of payment over the mortgage loans separately managed in accordance with the applicable KHFC Act securitisation plan, and (ii) if mortgage loans in the KHFC Cover Pool are separately managed according to the applicable KHFC Act securitisation plan, the investors will have a priority right of payment against such mortgage loans unless otherwise prescribed in other laws. Considering the legislative intent and history of these provisions, the statutory priority right of payment over the mortgage loans owned by KHFC was considered as having been granted to the investors through the registration with the FSC of the applicable KHFC Act securitisation plan without taking any other actions necessary for the establishment or perfection of the statutory priority right.

KHFC is required to separately manage the mortgage loans included in the Cover Pool from its other assets on the basis of the applicable KHFC Act securitisation plan.

2. Covered Bond Act

Article 13 of the Covered Bond Act states that (i) holders of Covered Bonds, (ii) swap providers, (iii) claimholders relating to the redemption/maintenance and management of the Covered Bonds and management/disposal and execution of the Cover Pool, and (iv) the Cover Pool monitor have a priority right of payment on the registered Cover Pool over third parties. Article 12 of the Covered Bond Act states that, in case of an issuer's insolvency, the Cover Pool shall not be subject to the issuer's insolvency proceedings, including compulsory execution, preservative measures and stay orders. If the principal of the Covered Bonds is not fully repaid, Covered Bond holders have the right to payment from other assets of the issuer in addition to the Cover Pool.

With the consent of the holders of at least 75% of the aggregate outstanding principal amount of the Covered Bonds, FSC may issue an order to transfer relevant contracts to another eligible issuer.

The issuer is required to separately manage the mortgage loans included in a Cover Pool from its other assets on the basis of the applicable issuance plan. The books for the Cover Pool must also be separately maintained and any violation may be subject to criminal sanctions.

IX. RISK-WEIGHTING AND COMPLIANCE WITH EUROPEAN REGULATION

The Covered Bonds under the Covered Bond Act and the KHFC Covered Bonds under the KHFC Act are not compliant with Article 52(4) UCIT and do not benefit from the higher investment limits because neither KHFC nor any of the potential South Korean issuers of the covered bonds is a credit institution with its registered office in a EU member state. These covered bonds cannot be CRD compliant without meeting the requirements of Article 52(4) UCITS.[1] Thus, the covered bonds cannot benefit from special treatment in terms of risk weighting.

Issuers: Korea Housing Finance Corporation and Kookmin Bank.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/107/South_Korean_Covered_Bonds

COVERED BOND · LABEL · **:** Korea Housing Finance Corporation (1 pool).

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.37 SPAIN

By Gregorio Arranz, Spanish Mortgage Association

I. FRAMEWORK

The legal framework for Spanish covered bonds – "Cédulas hipotecarias" (CHs) – is determined by the Law 2/1981 of 25 March on the regulation of the mortgage market (hereinafter, "Law 2/1981"), Law 41/2007 of 7 December, by which Law 2/1981 of 25 March, regulating the mortgage market and other rules of the mortgage and financial system are modified, reverse mortgages and long-term care insurance are regulated and certain tax regulations are established (hereinafter, Law "41/2007") and the Royal Decree 716/2009 of 24 April, which develops certain aspects of Law 2/1981 and other rules of the mortgage and financial system (hereinafter, "RD 716/2009").

As regards consumer protection, firstly in May 2013, a Law on protection of mortgage debtors, restructuring of mortgage debt and rented social housing was approved and partially affected mortgage and procedural laws and some very specific points of Law 2/81 referred below. On 15 March 2019 it was finally approved the Law 5/2019 in order to incorporate Directive 2014/17/EU relating to residential immovable property. The new regulation was subsequently developed by secondary legislation, namely Royal Decree 309/2019 and Ministerial Order ECE 482/2019 both of 26 April. More recently, and due to the Covid-19 pandemic, a mortgage debt moratorium was approved by Royal Decree-Law 8/2020 of 17 March (amended by Royal Decree-Law 11/2020 of 31 March).

Regarding bankruptcy regulation, Article 14 of Law 2/1981 (modified by the 19th final provision of Law 22/2003 of 9 July, hereinafter the "Insolvency Law", and by Law 41/2007) provides for a special treatment for the holders of the CHs in case of insolvency of the issuer. According to this article, CH holders have special privileged claims (*créditos con privilegio especial*) as established in Article 90 of the Insolvency Law.

Article 12 of Law 2/1981 defines that the capital and interests of the CH are secured by the entire mortgage loan book registered in favour of the CH issuer (excl. loans used in securitisations or loans securing mortgage bonds).

Moreover, Article 14 of Law 2/1981 determines that in case of issuer insolvency claims of CH holders shall be treated as privileged claims against the insolvency estate (*créditos contra la masa*). It shall be considered as credits against the mass: all the payments which correspond to the repayment of the capital and interest of the issued *cédulas hipotecarias* and, if any, to the substitution assets which backup the *cédulas hipotecarias* and the economic flows generated by the financial instruments linked to the issues (Article of 14 Law 2/1981). Pursuant to Article 84(2)(7), in combination with Article 154 of the Insolvency Law, claims against the insolvency estate have to be paid on their respective due dates without delay of payment, regardless of the status of the bankruptcy proceedings.

In addition, the second additional provision of the Insolvency Law, modified by Royal Decree – Law 3/2009 of 27 March, establishes that in case of insolvency of credit institutions, their specific legislation, specifically Article 10, Article 14 and Article 15 of Law 2/1981 of the mortgage market, shall be applicable. As a result, the mortgage market law supersedes the Insolvency Law.

II. STRUCTURE OF THE ISSUER

Issuers of CHs have to be credit institutions, entitled to participate in the mortgage market and thus, to grant the mortgage credits or loans that comply with the requirements of the Spanish mortgage market legislation. In practice, issuers of CHs are mainly: commercial banks, saving banks and cooperative banks.

The issuer of the CHs holds the cover assets on his balance sheet and they are not transferred to a different legal entity.

The CHs, in addition to being direct, unconditional obligations of the issuer and without prejudice to the unlimited universal nature of the liability, comprise a special privileged credit right of its holder against the issuer, and if any, against the substitution assets which backup the *cédulas hipotecarias* and the economic flows generated by the financial instruments linked to each issue. This right is guaranteed by the entire mortgage loan book registered in favour of the issuer. The effectiveness of this right is also guaranteed by the existence of mandatory over-ollateralisation.

Although in 2019 and until April 2020 no changes to the covered bonds legal framework were introduced, it is worth to mention that the Spanish Treasury launched on March 2 of 2020 a public consultation on potential changes to the legal regime of CHs in order to transpose the new Directive 2019/2162 on Covered Bonds into national Law.

The consultation was not only referred to the best way to fill in the "national discretions" the Directive contemplates, but also to other changes the Spanish legislation needs, such as aspects related to the bankruptcy legislation.

The consultation period ended on March 17 and all the Spanish issuers responded through the Spanish Mortgage Association.

In their response there is clear preference for implementing all the measures the Directive envisages that can contribute to enhance the future regulation of the CHs even if they are not compulsory (e.g. cover pool monitor, maturity extensions…).

Returning to the current regime, although there is no direct link between the covered bonds and the underlying mortgaged properties, there is a direct link between CHs and the cover assets.

Due to the status of the issuer as a credit institution, one of the requirements to conduct business is to have adequate human and material resources pursuant to the credit institution legislation.

The degree of outsourcing covered bond issuance activities is quite low, almost irrelevant. Usually, the outsourced service has to be provided by a well-known servicer with an adequate rating. In any case, the issuer is responsible and liable for the performance of the service.

It is important to point out that there is another Spanish covered bond called *Cédulas Territoriales* (CTs) with the same special privilege claim status as CHs. In this case, the cover asset pool consists of all loans to the Spanish State, its autonomous communities and local authorities, as well as their entities and dependent public companies and entities of a similar nature in the European Economic Area. The credit institutions may issue CTs up to 70% of the eligible public loan portfolio, resulting in a minimum overcollateralisation of 43%. Later on, the Law 14/2013 of 27 September on support for and the internationalisation of entrepreneurs created the so-called *Cédulas de Internacionalización* and *bonos de internacionalización* which are covered bonds very similar to *cédulas hipotecarias* and *bonos hipotecarios* (see below) where the cover asset pool consists of loans and credits associated with the financing of export agreements. Secondary legislation was approved by Royal Decree 579/2014 of 4 July but no significative issuances has taken place yet. The total amount cannot exceed 70% of the eligible amounts. Last but not least, a last type of covered bonds is the Bonos Hipotecarios that, although contemplated in Law 2/1981, have not been used for the time being. These bonds have specific mortgages as collateral and not the whole portfolio.

III. COVER ASSETS

A distinction shall be made between cover assets and eligible assets.

Cover assets consists of the entire mortgage loan book registered in favour of the issuer. The special privileged claims of the holders of CHs are guaranteed by the cover asset pool and if any, by the substitution assets which backup the *cédulas hipotecarias* and the economic flows generated by the financial instruments linked to each issue.

The Law 2/1981 does not establish specific requirements for mortgage loans that constitute the cover asset pool.

For issuance purposes and their limits, it shall be considered as eligible assets in order to determine the maximum amount of CHs issued and outstanding for a particular issuer.

All mortgage loans which comply with the following criteria are considered for the calculation of the maximum amount of CHs issued and outstanding:

> The object of the loan or credit must be the financing of the construction, reconstruction, or acquisition of residential premises, zoning works and social equipment, construction of agrarian buildings, tourist, industrial and commercial and any other activity or work and any other loan, regardless its purpose.

> The mortgage that guarantees the loan or credit must be a first-ranked mortgage.

> The loan or credit guaranteed may not exceed 60% (Article 5 of Law 2/1981 modified by Law 41/2007) of the mortgage lending value of the mortgaged asset, except for the financing of the construction, reconstruction or acquisition of residential premises, in which case it may reach 80% of such value.

> The 80% limit in the ratio between the guaranteed loan or credit and the value of the mortgaged home mentioned in the previous section can be exceeded, without under any circumstances exceeding 95%, if the mortgage loan or credit has a bank guarantee provided by a different credit institution to the creditor or is covered by credit insurance. The bank guarantee or insurance shall be direct and will cover at least the amount of the guaranteed loan or credit which exceeds 80% of the valuation of the mortgaged asset and interests (Article 5 of RD 716/2009). Although the latter is a theoretical possibility as a matter of fact Spanish issuers have never utilized it. Any possible usage should be under the stringent control of Bank of Spain.

  Notwithstanding, mortgaged loans or credits that initially exceed these percentages can be used as cover assets for the issuance of CHs when, as a consequence of the repayment of their principal amount or the modification of the market value of the mortgaged properties the values do not exceed said LTV, in relation to the initial or revised valuation of the mortgaged asset.

  The mortgaged properties must have been valued previously by the so-called "Sociedades de Tasación" or by the valuation services of the issuer.

> The mortgaged assets must be insured against damages.

> Residential mortgage loan cannot exceed 30 years.

Excluded from cover asset pool are special types of mortgage credits or loans, such as:

> Those documented by way of registered securities, either to the order or bearer securities.

> Those which are partially or totally due.

> Those which have already been the subject of mortgage participations (*Participaciones Hipotecarias*, i.e. loans used in securitisations).

> Those subject to senior mortgages or seizure.

The cover asset pool is defined as a dynamic cover pool. ABS/MBS or other assets are not allowed in the cover pool, but mortgages are allowed.

It has been a common practice for the issuer to hedge the interest rate risk by using the corresponding derivative instrument.

The institution issuing the *cédulas hipotecarias* will keep a special accounting register of the loans and credits that serve as collateral of the issues of *cédulas hipotecarias* and, if any, of the substitute assets fixed that cover them, as well as the derivative financial instruments linked to each issue. The annual accounts of the issuing institution shall contain the essential details of said register (Article 12 of Law 2/1981, Article 21 of RD 716/2009 and Circular 7/2010 of 30 November of the Bank of Spain).

In order to guarantee the transparency of the cover assets, the issuers have to provide the Bank of Spain with a monthly cover pool report. Moreover, there is a general duty of disclosure as a result of the continuous supervisory power of the Bank of Spain.

IV. VALUATION AND LTV CRITERIA

According to mortgage market legislation, the value of the mortgaged property has to be appraised prior to the issuance of the CHs by specialised companies, the so-called "Sociedades de Tasación" or by the valuation services of the issuers.

As said before, for eligible assets, the loan or credit guaranteed may not exceed 60% (Article 5 of Law 2/1981 modified by Law 41/2007) of the mortgage lending value of the mortgaged asset, except for the financing of the construction, reconstruction or acquisition of residential premises, in which case it may reach 80% of such value.

The mortgage markets legislation also determines the regulation for the appraisal service and the requirements with which the specialised companies have to comply, such as, an exclusive corporate object, minimum corporate capital requirement, registration with the corresponding registry at the Bank of Spain. The last legal reform as of May 2013 prevents credit institutions from owning more than a 10% of appraisal companies' capital. Moreover, those entities are supervised and subject to inspection by the Bank of Spain. These rules were developed by the Ministerial Order of 27 March of 2003 in relation to the appraisal of real estate goods.

V. ASSET – LIABILITY MANAGEMENT

The volume of CHs issued and outstanding by a particular Issuer cannot exceed 80% (Article 16 of Law 2/81) of the sum of the unpaid principal amounts corresponding to all the mortgage credits or loans included in the Issuer's portfolio that comply with the requirements mentioned above under section III on cover assets. The issuer cannot issue CHs beyond these percentages at any time.

The *cédulas hipotecarias* can be backed up to a limit of 5% of the issued capital by substitution assets (fixed income securities issued by the State and other EU Member States, *cédulas hipotecarias*, mortgage bonds, securities issued by Mortgage Securitisation Funds or Asset Securitisation Funds and other fixed-income securities listed on an official secondary market or on a regulated market, with a credit rating equivalent to that of the Kingdom of Spain – Article 15 and Article 17 of Law 2/1981)

Notwithstanding this general statement, if the limit is surpassed due to increases in the redemption of the Eligible Assets or any other event whatsoever, the Issuer shall re-establish due balance by means of any of the following actions:

> Cash deposit or deposit of government paper in the Central Bank of Spain.

> Acquisition of CHs in the relevant marketplace.

> Execution of new mortgage loans or acquisition of mortgage participations provided that they are eligible to cover CHs.

> Redemption of CHs by the pertinent amount until balance has been reinstated, which, if necessary, can be executed through early redemption and drawing the number of securities to be redeemed by lot.

As a general remark it should be noted that it has been a common practice for the issuer to hedge interest rate risk.

Concerning foreign exchange risks, there is no legal provision in relation to it.

Other risks such as early repayment, reinvestment, etc. are also mitigated by the 25% overcollateralisation as well as by the dynamic nature and structure of the cover pool.

VI. TRANSPARENCY

As mentioned above (Section III, Cover Assets) Spanish legislation obliges Spanish issuers of covered bonds to keep a special and very complete register of their loans and credits. The annual accounts have to contain additionally the essential details of said register.

On top of that, main Spanish issuers of CHs, coordinated by the Spanish Mortgage Association, and since the end of 2011, have created a transparency template, consistent with the guidelines of the ECBC Label Initiative. This last version meets the requirements of Article 129(7) of the Capital Requirements Regulation (CRR).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The Spanish legislation does not require a special pool monitor other than the supervision on a continuous basis by the Bank of Spain which includes the periodic disclosure of information regarding cover assets by credit institutions.

The Bank of Spain beyond its regular prudential supervision is responsible for specifically supervising compliance with the limits and regulatory requirements and is entitled to adopt measures in order to mitigate any breach or deviation from the regulation, including sanctioning such breach or failure.

A "special" supervision is also carried out by the Comisión Nacional del Mercado de Valores (hereinafter, "CNMV"). The CNMV may also monitor and supervise compliance with statutory requirements and limits upon approval of the issuance and clearly supervise the placing process.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Identification of the cover assets

Any mortgage that is originated in Spain must be registered in the Land Registry. Consequently, the Land Registry is the cover registry which records all the mortgages serving as the collateral for the CHs.

Asset segregation from the insolvency estate

Article 14 of Law 2/1981 of the regulation of the mortgage market stipulates that the institution issuing the cédulas will keep a special accounting register. This provides the legal framework regarding the position of the rights of the holders of the CHs in case of insolvency of the Spanish issuer.

In this respect, it is worth pointing out the following relevant issues:

1. According to Article 14 of Law 2/1981 claims of CH holders have to be treated as privileged claims against the insolvency estate (*créditos contra la masa*). Article 84(2)(7) and Article 154 of the Insolvency Law require that claims against the insolvency estate have to be paid by the insolvency administrators on their respective due dates without delay of payment, regardless of the status of the bankruptcy proceedings.

   In the case of CH, the claims of the CH holders are secured by the entire mortgage loan book registered in favour of the CH issuer (Article 12 of Law 2/1981) and if any, by the substitution assets which backup the *cédulas hipotecarias* and the economic flows generated by the financial instruments linked to each issue. The definition as stated by the Insolvency Law implies the application of the special rule of payment without enforcement of the collateral.

   The Insolvency administration is not entitled to adopt any decision against said legal provision and has to use the proceeds from the issuer's mortgage loan book to satisfy CH principle and interest payments on their respective due dates without delay of payments.

2. The Insolvency administrators are obliged to pay such amounts as long as the cash flows produced by the cover assets are sufficient to meet the CHs payments pursuant to Article 84(2)(7) of the Insolvency Law.

In this respect, the Insolvency Law provides a clear definition of the claims of CH holders as special privileged claims without enforcement of the collateral. It also provides an unequivocal classification of the claims of CH holders, as claims against the insolvency estate and clear identification of the cover assets, which are reserved to meet the claims of the CH holders.

All of the holders of *cédulas hipotecarias*, whatever their date of issue, shall have the same preference over the loans and credits covering them and if any, to the substitution assets which backup the *cédulas hipotecarias* and the economic flows generated by the financial instruments linked to each issue.

3. The payments to be effected by the debtor comprise all those deriving from principal and interest of the issued and outstanding CHs on the date on which the Insolvency is declared. All CH payments have to be met on their respective due dates, regardless of the status of the bankruptcy proceedings. In the case where the cover assets are insufficient to meet the CH payments, the claims of the CH holders will be realised. The payment to all of the *cédulas hipotecarias* owners shall be done on a pro rata basis, regardless of the issue date of their securities. (Article 14 of Law 2/1981). In the case of insufficient cover assets, all CH holders' claims will be met on a pro-rata basis together with ordinary claims (Article 157(2) of the Insolvency Law).

   A judicial stay (moratorium) on the insolvency's estate cannot delay the cash flows from the cover assets and, therefore, endanger the timely payment of interest and the principle on CHs. In case of insolvency of the issuer, liquidity is ensured by the means discussed above, by the flows derived from the cover assets.

   In order to comply with the payment obligations to the holders of the *cédulas hipotecarias* in the event of a temporary gap in the revenue received by the debtor, payments shall be made by means of liquidating the substitution assets serving as collateral of the issue. If this was insufficient, payments shall be made by means of funding operations via subrogation of the debtor in the position of the holder of the cédulas (Article 14 of Law 2/1981).

Administration of the cover assets

In case of insolvency, it is the normal insolvency administrator who administrates the cover assets. In this respect, under Spanish Insolvency Law, the bankruptcy is directed by commercial court of competent jurisdiction and managed by a specific body called the "bankruptcy authority" (*administración concursal*) normally comprising a single person.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The legislation when taken together with the practices, processes and procedures across the industry should fall within the criteria of Article 129 of the Capital Requirements Regulation (CRR). The Spanish covered bonds fulfil the criteria of Article 52(4) UCITS and Article 129 CRR.[1]

Finally, the CHs upon being listed or applied for listing are eligible for: i) investment by insurance companies of their technical provisions obligations; ii) the investment by mutual guarantee companies; iii) investment by Pensions Funds.

Issuers: ABANCA Corporación Bancaria, S.A., Banco de Sabadell, S.A., Banco Santander S.A., Bankia, Bankinter, S.A., BBVA, CaixaBank SA, Caja Rural de Navarra, Credit Cooperative, Eurocaja Rural, Grupo Cooperativo Cajamar, Ibercaja Banco S.A., Kutxabank S.A., Unicaja Banco SA.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/45/C%C3%A9dulas_Hipotecarias_-_CH

Covered Bond Label: Banco de Sabadell, S.A. (2 pool), Bankia (1 pool), CaixaBank SA (2 pool), Banco Santander S.A. (2 pool), Kutxabank S.A. (1 pool), Unicaja Banco SA (1 pool), BBVA (2 pool), Bankinter, S.A. (1 pool), Ibercaja Banco S.A. (1 pool), Eurocaja Rural (1 pool), Caja Rural de Navarra, Credit Cooperative (1 pool), ABANCA Corporación Bancaria, S.A. (1 pool), Grupo Cooperativo Cajamar (1 pool).

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

3.38 SWEDEN

By Jonny Sylvén, Association of Swedish Covered Bond Issuers (ASCB)

I. FRAMEWORK

In Sweden, the issuance of covered bonds is governed by the Swedish Covered Bonds Issuance Act ('CBIA'), which came into force on 1 July 2004[1]. The CBIA prevails over the general bankruptcy regulation and grants covered bond investors a priority claim on the eligible cover assets. A regulation and guidelines from Finansinspektionen, the Swedish Financial Supervisory Authority ('SFSA'), complement the legislation. In the SFSA regulation and guidelines, the detailed criteria for obtaining authorisation to issue covered bonds, the cover pool requirements, the coverage requirements and the requirements regarding the cover register are specified.

II. STRUCTURE OF THE ISSUER

The CBIA allows for all banks and credit institutions to issue covered bonds, provided that they have obtained a special authorisation from the SFSA. The issuer has to meet certain criteria to qualify for the authorisation. These criteria include the submission of a financial plan showing the issuer's financial stability for the coming three years, the conversion of any outstanding mortgage bonds into covered bonds and the conduct of business in compliance with the CBIA. The SFSA has the right to withdraw the authorisation should the institution be in material breach of the CBIA or have failed to issue covered bonds within one year of receiving the authorisation (Figure 1). If the SFSA withdraws an authorisation, the SFSA may lay down a plan to wind down the operation.

> Figure 1: Authorisation required to issue covered bonds

Requirements for authorisation to issue covered bonds:

> The institution's articles of association, by laws or regulations must comply with the CBIA.
> The issuer must conduct the covered bonds business according to the CBIA and related regulatory provisions.
> Any outstanding mortgage bonds must be converted into covered bonds or administered in an equivalent manner with respect to the creditors.
> A financial plan for the next three fiscal years, confirmed by auditors, showing that the issuer is sufficiently stable and that the interest of other creditors is not jeopardised when it issues covered bonds.
> The issuers have to submit an operational plan that shows sound management and supervision of the covered bond business (including information on the IT operations).

The SFSA may withdraw an authorisation if:

> The institution is in material breach of its obligations pursuant to the CBIA; and/or
> The institution has failed to issue any covered bonds within one year of receiving the authorisation.

Source: Lag 2003:1223, FFFS 2013:01

The cover assets correspond to the covered bond investors claims on the issuer and remain on the balance sheet, i.e. there is no transfer of the cover assets to a separate legal entity. The covered bonds are direct, unconditional obligations on the part of the issuer. The cover pool is dynamic and the outstanding covered bonds are secured by the whole cover pool; the individual cover bonds are not linked to any specific cover assets. In the event of insolvency of the issuer, the cover pool is bankruptcy-remote and not included in the general insolvency estate of the issuer but is exclusively available to meet outstanding claims of covered bond holders.

1 Lag (2003:1223) om utgivning av säkerställda obligationer (the Covered Bonds Issuance Act).
2 FFFS 2013:01 Finansinspektionen's Regulations and Guidelines regarding covered bonds.

Moreover, covered bond investors enjoy ultimate recourse to the insolvency estate of the issuer, ranking *pari passu* with senior unsecured investors.

III. COVER ASSETS

Eligible cover assets are mortgage loans and loans to the public sector. There is no requirement for separate cover pools for mortgage and public sector cover assets; both asset classes can be mixed in a single cover pool. However, most of the cover assets are mortgages (more than 95% of the cover pools).

For mortgagees to be eligible as cover assets they should be secured by:

> real property intended for residential, agricultural, office or commercial use;

> site-leasehold rights intended for residential, office or commercial use;

> a pledge against tenant-owner rights; or

> similar foreign collateral (EEA).

Mortgages to offices and commercial property are limited to 10% of the total value of the cover pool. The collateral for the mortgage loans has to be located in Sweden or the European Economic Area (EEA)[3]. Neither asset-backed nor mortgage-backed securities are eligible as cover assets. The mortgage loans have to meet valuation criteria and certain loan-to-value ratios specified in the CBIA and the SFSA regulation (see section IV).

Eligible public sector assets are securities and other claims:

> issued or guaranteed by the Swedish state, a Swedish municipality or a similar public body;

> issued or guaranteed by a foreign state or central bank, where the investment is in the foreign state's national currency and is refinanced in the same currency[4];

> issued or guaranteed by the European Communities, or any of the foreign states or central banks prescribed by the Swedish government; or guaranteed by a foreign municipality or public body that has the authority to collect taxes.

Non-performing loans due over 60 days cannot be included for the purpose of meeting the matching requirements set forth in the CBIA.

Derivative contracts

The CBIA provides for the use of derivatives for hedging of interest and currency risk. The derivatives must be structured so that an early termination is not triggered by an issuer default or on the counterparty's demand. Derivative counterparties must have a minimum long-term rating of A3/A-/A- (Moody's/S&P/Fitch) at the time the agreement is entered into. The law stipulates asymmetrical collateralisation. Collateral, a guarantee or replacement language is required from the counterparty in the event of the rating falling below the minimum rating level. There is no reciprocal requirements on the covered bond issuer, but the derivative counterparty has a priority claim on the cover pool. The derivatives are not included in the nominal coverage calculation and are not limited to a maximum percentage of the cover pool. The derivative contracts are however included in the net present value coverage calculation, the purpose of which is to ascertain a good balance between the value of the assets and the liabilities in the covered bond programme.

Substitution assets

Certain types of highly liquid assets can serve as substitution assets for up to 20% of the value of the cover pool. Eligible substitution assets include public sector assets and cash and qualify for a 0% risk weight. The SFSA can temporarily raise the limit up to 30% and expand the universe of eligible substitution assets.

3 Countries belonging to the European Economic Area are the EU countries plus Norway, Iceland, Liechtenstein.

4 The law does not provide for any explicit geographic restriction.

IV. VALUATION AND LTV CRITERIA

The principles for the valuation of collateral for the mortgages in the cover pool are specified in the CBIA. The valuation relating to residential properties may be based on general price levels. The value of any other eligible property class must be based on the market price and determined on an individual basis by qualified professionals. The market value should reflect the price achievable through a commercial sale, without time pressure and excluding any speculative or temporary elements. Issuers are required to monitor the market value of the property regularly, and in the case of a significant decline review the valuation and ensure that the loan to value (LTV) of the related mortgage loan remains within the limit. The valuer can be an employee of the issuer or external.

For the various mortgage types eligible as cover, the following maximum LTV ratios apply:

> 75% of the value for real estate, site-leasehold rights and tenant-owner rights where the property is intended for residential use;

> 70% of the value for real estate intended for agricultural purposes;

> 60% of the value for real estate, site-leasehold rights and tenant-owner rights where the property is intended for office or commercial use.

The LTV limits are relative, not absolute. A loan with a higher LTV ratio can be included in the cover pool up to the legal threshold. The balance is refinanced through other funding instruments (e.g. senior unsecured funding).

The issuer is required to test and analyse how changes in property values may affect LTV ratios and the value of the cover pool at least once a year. The tests should be based on conservative assumptions.

V. ASSET – LIABILITY MANAGEMENT

The CBIA requires the nominal value of the cover assets to at all times be greater than the aggregate nominal value of claims arising from outstanding covered bonds. The cover assets, including derivatives, should, on a net present value (NPV) basis, always be greater than the corresponding value of the interest and principal of outstanding covered bonds, taking into account the effects of stress-test scenarios on interest and currency risks set by the SFSA. The stressed scenario that should be tested regarding interest-rate risk is a sudden and sustained parallel shift in the reference swap curve by 100 bps in an unfavourable direction, and a twist in the swap curve. The currency risk should be tested for a 10% sudden and sustained change in the relevant foreign exchange rate for the currency of the covered bonds and the currency of cover assets. There is a minimum overcollateralisation (OC) requirement of two percent. Both the statutory OC and any additional OC for structural enhancement purposes are bankruptcy-remote and protected in the event of issuer insolvency.

The issuer shall ensure that the cash flow with respect to the assets in the cover pool, any derivative agreements and the covered bonds are such that the issuer is always able to meet its payment obligations towards the bondholders and derivative counterparties. The issuer should be able to account for these funds separately.

VI. TRANSPARENCY

The issuers disclose information regarding their cover pool and outstanding covered bonds every quarter (some more frequently) in line with the harmonized transparency template (‘HTT’, posted on the Covered Bond Label website[5]) and a national transparency template (NTT). The information is published on each issuer’s website. The uniform reporting makes it easy for investors to compare data across issuers’ cover pools and to extract data for further analysis.

In addition to the publicly disclosed information, the issuers are required to give their respective independent inspector (see section VII) additional information, specified in the SFSA regulation.

5 https://www.coveredbondlabel.com/issuers/national-information-detail/24/.

VII. COVER POOL MONITORING AND BANKING SUPERVISION

The covered bond issuers are subject to special supervision by the SFSA. The SFSA supervises the issuers' compliance with the CBIA and related regulatory provisions. If an issuer is in material breach of its obligations under the legal framework, the SFSA can issue a warning or revoke the authorisation to issue covered bonds altogether. The SFSA may also revoke an authorisation if the issuer waives the license or if the institution has failed to issue covered bonds within a year from the date of the authorisation.

For each issuer, the SFSA appoints an independent and suitably qualified cover pool inspector (cover pool trustee), who is remunerated by the covered bond issuer. The duties of the cover pool inspector are to monitor the register and verify that the covered bonds, the derivative agreements and the cover assets are correctly recorded. The inspector also ensures compliance with calculation of coverage and market risk limits in accordance with the CBIA. The inspector is also required to monitor the revaluations of underlying collateral that has been conducted during the year. The issuer is obliged to provide the covered bond inspector with any information requested relating to its covered bond operations. The inspector submits a report of his or her assessment to the SFSA on an annual basis and is required to notify the SFSA as soon as he or she learns about an event deemed to be significant.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Cover register

The issuer is required to keep a register of the cover assets, substitution assets, derivative contracts, and outstanding covered bonds. The law specifies the form and content of the register, which shall be easily accessible for the SFSA and the cover pool inspector. The registration ensures that the covered bondholders and derivative counterparties have a legally enforceable priority claim on the cover pool in the event of issuer insolvency. Prior to an issuer being declared insolvent, cash flow accruing from the cover assets must be accounted for separately by the issuer. In the event of issuer default, covered bond investors and derivative counterparties have the same priority claim on such cash flow as they have on the cover pool. Any cash flow accruing from the cover assets after issuer insolvency should also be recorded in the cover pool register.

Issuer insolvency

In the event of issuer insolvency, the registered cover assets and the covered bonds are segregated from the general insolvency estate. Covered bonds are not accelerated as long as the cover pool fulfils the requirements set out in the CBIA, which also allows for "temporary, minor deviations"[6]. An issuer default does not trigger early termination of any registered derivative contracts. Covered bond holders and registered derivative counterparties have a priority claim on the cover pool and cash that derives from the pool, ensuring timely repayment to original agreed terms, as long as the cover pool is compliant with the CBIA. The cover pool does however not constitute a separate legal estate. According to a legal opinion, the bankruptcy of the issuer should not lead to a debt moratorium on the covered bonds.[7]

Under the Swedish Bankruptcy Code, the insolvency of the parent company does not automatically trigger the insolvency of a subsidiary.

Cover pool default and preferential treatment

In the event of the cover pool being incompliant with the eligibility criteria, the covered bonds would be accelerated. Covered bond investors and derivative counterparties would have a priority claim on the proceeds from the

6 According to the legislative history of the Act, this would be, for example, "temporary liquidity constraints".

7 There are no means in the Act that could disrupt or delay payment to covered bondholders. However, the Act does not explicitly derogate from the general provision of the Code of Procedures 1948 or the Bankruptcy Act 1987, of which neither explicitly ensures the integrity of payments on covered bonds.

sale of the cover assets, ranking pari passu among themselves but prior to any other creditors. If the proceeds are insufficient to repay all liabilities on the outstanding covered bonds, covered bond investors and derivative counterparties would have an ultimate recourse to the insolvency estate of the issuer, ranking pari passu with senior unsecured investors.

Survival of OC

Any OC present in the cover pool at the time of the issuer's insolvency is bankruptcy-remote provided that it is recorded in the cover pool register. Full repayment of outstanding claims related to the covered bonds and registered derivatives is required before the cover assets would be available to satisfy any claims from unsecured creditors.

The law does not provide for the appointment of a special cover pool administrator. The receiver-in-bankruptcy represents the interests of both the covered bond investors and the unsecured investors. The receiver can use the OC to pay advance dividends to other creditors of the bankrupt issuer, if the pool contains more assets than necessary.[8] If the cover assets later prove to be insufficient, these advance dividend payments can be reclaimed.

Access to liquidity in case of insolvency

In the cases of the issuer's insolvency, the law does not enable the receiver-in-bankruptcy to refinance maturing covered bonds by issuing new covered bonds. The receiver cannot substitute ordinary cover assets for other assets. However, the receiver can utilise available liquid assets included in the cover pool and is allowed to sell assets from the cover pool to create the necessary liquidity.

The receiver-in-bankruptcy also has an express mandate to, on behalf of the bankruptcy estate enter into loan agreements and other contracts for the purpose of maintaining sufficient coverage and liquidity and managing the currency and interest rate risks. The receiver should only enter into agreements if, on the date of execution of the agreement, the agreement is deemed to be in the bondholders' and derivative counterparties' interest and if the assets in the cover pool are deemed to fulfil the legal requirements. When the receiver enters into an agreement, the counterparty has a claim on the bankruptcy estate that ranks ahead of the secured creditors and creditors with rights of priority.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The covered bonds issued on the Swedish market comply with the criteria of UCITS Directive article 52 and with the covered bond criteria in article 129 in CRR. Since the bonds are compliant with CRR article 129, the applicable risk-weight for the Swedish covered bonds will be ten percent for those banks that use the standard method. The CBIA explicitly lists mortgages against property for agricultural purposes and mortgages against the pledging of tenant-owner rights as eligible cover assets, while the CRR does not. However, the general opinion of the parties involved is that the term "Commercial Real Estate" in the CRR should be interpreted to include agricultural property mainly for commercial use. Swedish covered bonds are eligible for repo transactions with the Riksbank (the Swedish Central Bank). The Riksbank's collateral requirements are harmonised with those applied within the Eurosystem.

Covered bonds issued in other jurisdictions enjoy the same preferential capital treatment in Sweden, subject to the relevant foreign supervisory authority having assigned the covered bonds preferential risk-weights (principle of mutual recognition).

The Swedish UCITS Act (Lag (2004:46) om värdepappersfonder) allows for Swedish UCITS to invest up to 25% of their assets in Swedish covered bonds, instead of the 5% generally applicable to other asset classes.

8 According to a legal opinion, the receiver-in-bankruptcy would have to take into account a substantial safety margin to ensure that the cover pool's integrity and compliance with the Act is not jeopardized, which would be difficult to prove unless outstanding covered bonds were due to mature imminently.

X. ADDITIONAL INFORMATION

Issuing and trading of Swedish domestic covered bonds

Normally the Swedish covered bonds are registered at Nasdaq Stockholm (a Nasdaq Inc. subsidiary), although no actual bond trading takes place there. The base prospectuses used follow the standard of and are compliant with the Prospectus Directive (superseded by the Prospectus Regulation as of 21 July 2019) and are approved by the SFSA. The normally used technique for issues is "on tap".

To ensure a good market liquidity, the large issuers issue their bonds as benchmarks which in the Swedish market mean large issues (SEK 3 billion and more) and that a number of dealers show both bid and offer prices. Only benchmarks are deliverable in the future contracts. When a new benchmark bond is issued, the issuer makes sure that the amount issued meets the requirements for a benchmark sized deal. After the initial day of issuance, the issuer can, without further notice, issue "on tap" the size required to fund the lending. At the peak of the life of the bond it typically has a volume of SEK 50 to 70 bn. After that the volume decreases due to active repurchase operations by the issuer. With one year to go to maturity a loan is no longer of benchmark status. This paves the way for a controlled redemption of the remaining part of the loan.

The bonds are sold into the primary market through banks acting as agents for the issuer. These banks also act as market makers in the secondary market. Currently, there are five banks that act as market makers in covered bonds: Danske Bank, Nordea, SEB, Svenska Handelsbanken and Swedbank. The market for government and domestic covered bonds, as well as treasury bills, is a telephone and screen-based over-the-counter market. Market makers display indicative two-way prices on an electronic information system which is instantaneously relayed by Reuters. Fixed prices are quoted on request and most deals are concluded via telephone. Trading in the secondary market takes place on all business days between 09.00 and 16.15 (local time). The number of bonds to be quoted is regulated in an agreement between the issuer and the market-maker.

Bonds are quoted on a yield basis with bid and ask spreads of (under normal market conditions) 2 bp for the liquid benchmark bonds. The settlement day for bonds is three business days after the trading date. Treasury bills are quoted on a simple yield basis and are settled two business days after the trading day. The normal trading lot in government securities and liquid covered bonds is SEK 200-500 m.

Sweden has a liquid repo market with almost all banks and broker firms involved in the trading. The repo market in Sweden started in the late 1980s and developed fast. The Swedish Debt Office offers a repo-facility in government bonds and treasury bills and the covered bond issuers offer their market makers a repo-facility in their own covered bonds. The repo transactions are viewed as 'sell-buy back' or 'buy-sell back' deals and the ownership of the security must be transferred. There are no standard conditions for a repo transaction and the counterparties agree on maturity, settlement day and delivery for each deal. Mostly, repos are settled two banking days after the trading day. Repo rates are quoted as a spread vs the Riksbank repo rate. Because of quantitative easing there is currently a lack of government bonds in the repo market, which has negative effects on the functionality of the repo market.

Almost all publicly listed securities in Sweden are in book-entry form, registered and settled via Euroclear Sweden's system. Domestic settlement requires a securities account or a custody account with one of the Swedish banks or investment firms. Foreign investors can either have a custodian service with a Swedish bank or investment firm or settle via Euroclear or Clearstream.

Accrued interest is calculated from the previous coupon date to the settlement date. The interest rate is calculated by using ISMA's 30E/360-day count – "End-of-month" convention.

Swedish government bonds and covered bonds have five ex-coupon days, hence there is a negative yield when settlement occurs within five business days before the coupon date.

Swedish krona bonds redeem at par upon maturity and most of them pay coupon annually. All domestic banks act as paying agents.

The ASCB

The Association of Swedish Covered Bond issuers (ASCB), which was established in 2009, performs ongoing work to further improve the conditions for the Swedish covered bond market. More information about the Swedish covered bond market can be found at www.ascb.se.

Essential terms and conditions of a typical Swedish market maker agreement

Typically, the larger issuers have 5-8 covered bond series with benchmark status. For the benchmark issues, the market maker typically has a duty to:

> Help the issuer sell bonds via taps of the benchmark loans in the market;

> Actively support trading of these bonds in the secondary market; and

> Continuously quote indicative rates in the information systems used.

The obligations of a market maker are conditional upon a number of things, inter alia:

> that no change in the economic, financial or political conditions, which in the reasonable opinion of the market maker would create a major obstacle to the fulfilment of the obligations, have occurred;

> that the bonds, in the reasonable opinion of the market maker, cannot be placed in the primary or secondary market on normal market conditions.

If the obligations cannot be fulfilled, the market maker shall notify the issuer and may withdraw from the duties wholly or in part for a shorter or longer time.

The issuer has an obligation to, under normal market conditions, offer a limited repo facility in the outstanding benchmark bonds to the market maker.

Issuers: Stadshypotek, Swedbank Mortgage, Nordea Hypotek, Swedish Covered Bond Corporation (SCBC), SEB, Skandiabanken, Länsförsäkringar Hypotek, Landshypotek, Danske Hypotek, Bluestep Bank and Sparbanken Skåne. The market is dominated by the first five of them and the majority of their exposure is to domestic residential mortgages, with the remainder consisting of commercial property loans and public-sector loans.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/47/Swedish_Covered_Bonds

COVERED BOND LABEL: Länsförsäkringar Hypotek AB (1 pool), Skandinaviska Enskilda Banken AB (SEB) (1 pool), Stadshypotek AB (publ) (3 pools), Swedbank Mortgage AB (1 pool), The Swedish Covered Bond Corporation (1 pool), Nordea Hypotek (1 pool).

3.39.1 SWITZERLAND – SWISS PFANDBRIEFE®

By Robert Horat and Markus Müller, Pfandbriefbank schweizerischer Hypothekarinstitute AG

I. FRAMEWORK

The legal framework for the Swiss Pfandbrief system is the Pfandbrief Act ('Pfandbriefgesetz', 'PfG'). It is complemented by the Pfandbrief Ordinance ('Pfandbriefverordnung', 'PfV'), the articles of association of the Pfandbrief institutes and the valuation regulations ('Schätzungsreglement'). The latter two have to be authorised by the Swiss Federal Council.

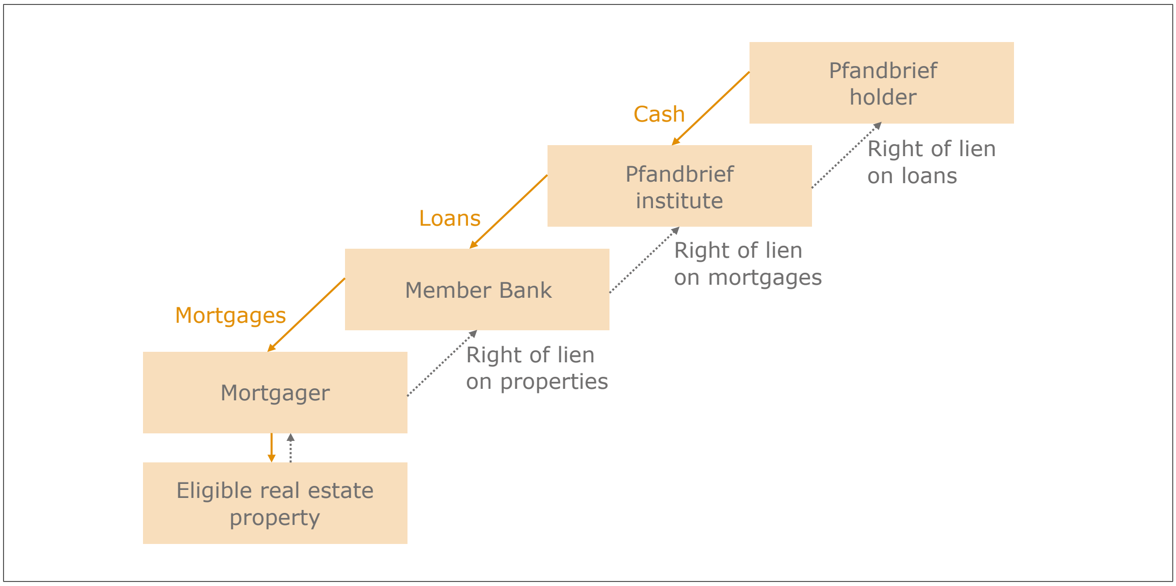
According to the PfG, the issuance of Swiss Pfandbriefe is reserved to two specialised Pfandbrief institutes, namely the 'Pfandbriefzentrale der schweizerischen Kantonalbanken AG' (PZ) and the 'Pfandbriefbank schweizerischer Hypothekarinstitute AG' (PB). They issue Swiss Pfandbriefe to refinance their member banks' Swiss mortgage business. As of article 1 of the PfG the purpose of the Pfandbrief institutes is to enable mortgages for real estate owners at interest rates which are as constant and favourable as possible. The 'Swiss Pfandbrief®' is a registered trademark. The reputation of this brand shall underpin its uniqueness within the world of covered bonds.

The Swiss Pfandbrief system is an indirect one: The Pfandbrief institutes raise money by issuing Swiss Pfandbriefe in order to grant Pfandbrief loans to their member banks. Sourced volume, currency and interest terms must be equal within each series of issuance. To get a loan, each member bank has to pledge first class Swiss mortgages to the Pfandbrief institute as a cover in advance. The Pfandbrief investors have a lien on the granted loans. The investors' lien on the loans as well as the issuers lien on the mortgages in the member banks' cover pool are determined by the Pfandbrief Act.

PfG came into effect in 1930. Its 52 articles are well balanced and the PfG had to be modified only marginally in the meantime. The fact that the Swiss Pfandbrief has a special legal basis, provides legal certainty as well as stability and predictability.

Pfandbrief institutes have a strictly limited scope:

> FIGURE 1: THE SWISS PFANDBRIEF® FRAMEWORK

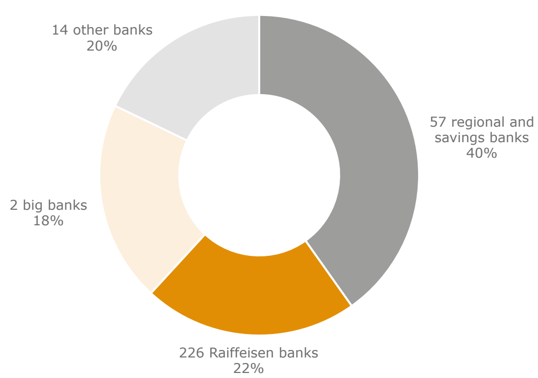


Source: Credit Suisse AG

II. STRUCTURE OF THE ISSUER

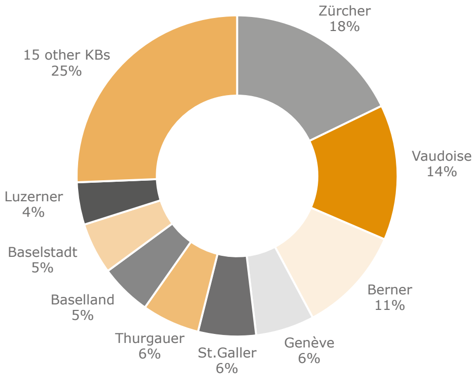
PZ operates as the Pfandbrief issuing vehicle of the Swiss cantonal banks and PB of all other Swiss banks. Both are special institutions with their business scope limited to the issuance of Swiss Pfandbriefe, to granting Pfandbrief loans to their member banks and to investing their share capital and reserves. Both Pfandbrief institutes are supervised by the Swiss financial market authority (FINMA). They are owned by their member banks. The chart below shows the structure of the shareholders:

> FIGURE 2: SHAREHOLDERS OF PB



Source: PB as of 31.12.2019

> FIGURE 3: SHAREHOLDERS OF PZ



Source: PZ as of 31.12.2019

PB was founded in 1931 and counts 296 banks with loans. Any Swiss bank has the right to become a member of PB, provided that it is headquartered in Switzerland and that Swiss mortgages account for at least 60% of the bank's balance sheet (Article 4 PfG). As of 31 December 2019, the total outstanding Swiss Pfandbriefe of PB amount to CHF 72.8 bn (EUR 67.1 bn).

PZ was also founded in 1931 and has 24 member banks. Only cantonal banks have the right to become members of the PZ (Article 3 PfG). PZ does not have its own staff but has fully outsourced its operations to Zürcher Kantonalbank. As of 31 December 2019, the total outstanding Swiss Pfandbriefe of PZ amount to CHF 58.3 bn (EUR 53.7 bn).

The total volume of all outstanding Swiss Pfandbriefe as of 31 December 2019 amounts to CHF 131.1 bn (EUR 120.8 bn). For years, the two Swiss Pfandbrief institutes have been the major bond issuers in Switzerland, even more important than the government. In 2019, they issued Swiss Pfandbriefe amounting to CHF 15.2 bn (EUR 14.0 bn).

Swiss Pfandbriefe are standardised to a great extent. They are a commodity, denominated only in Swiss francs, with an original time to maturity of up to 30 years. The size of an issuance depends either on the demand of the member banks for loans or on the demand of the investors for Swiss Pfandbriefe, whichever is smaller. Whenever possible, existing bonds are reopened.

Generally, Swiss Pfandbriefe are issued as public bonds through a banking syndicate at fixed term fees (the last private placement has been placed in 2011). All of these public issuances are listed on the SIX Swiss Exchange AG. In the domestic bond segment in Swiss Francs Pfandbriefe amount to 34%, followed by public sector (Swiss government, cantons, cities, regions) with 28%, the banking and insurance sector with 18% and other industries with 20%.

In total about 12% of all Swiss mortgages are refinanced through Swiss Pfandbriefe (10/2019).

III./IV. COVER ASSETS, VALUATION AND LOAN TO VALUE (LTV) CRITERIA

As a principle, Pfandbrief loans are only granted against a pledge of eligible first class mortgages on Swiss properties.

PB has got an electronic cover pool system. Mortgages are pledged to PB by the member banks through entry of a complete 'cover proposal' into the electronic pool register, which all member banks are linked to. The system immediately evaluates the member bank's 'cover proposal', which is then reviewed by one employee and authorised by another. PB valuates the mortgages independently from the member bank. Substantial cover proposals are additionally reviewed by a special cover pool committee.

The PfG defines a general maximum cover value LTV of two-thirds (Article 5 PfG), however, the cover value is at most as high as the mortgage, but mostly lower. Member banks are obliged to replace impaired, non-performing and other ineligible mortgages. Furthermore, contractual repayments of the mortgage can also reduce the cover value of the asset pool. Therefore, the member banks and PB have to supervise overcollateralisation daily. If total cover value is below the overcollateralisation limit, latest by close of business new eligible mortgages have to be pledged by the member bank.

The 'Pfandbriefbank pool' consists of approx. 190,000 mortgages all over Switzerland, which provides a good diversification. More than 99% are residential properties (the total cover value of the commercial properties is immaterial).

In case of a material change in macro-economic conditions, FINMA may request a new valuation of the real estate properties (Article 32 PfG).

V. ASSET – LIABILITY MANAGEMENT

Cover principles

The PfG stipulates that the principal amount as well as the interest payments of outstanding Swiss Pfandbriefe be at all times covered by an equivalent amount of Pfandbrief loans to the member banks (Article 14 PfG). The loans granted by Pfandbrief institutes to their member banks must be collateralised by liens on eligible real estate property (Article 19 PfG). If the interest proceeds of the pledged mortgages of a member bank are lower than its total Pfandbrief loan interest, the asset cover pool must be increased (Article 20 PfG).

Overcollateralisation

In addition to eligibility and valuation principles (LTV legally at maximum 2/3, for PB the average LTV is lower than 50%), the cover value of the cover assets has to exceed the Pfandbrief loans given to member banks by at least 8% for PB and by 15% for PZ. The higher overcollaterisation of PZ compensates for the fact that PZ does not have a standardised electronic cover pool register.

Additional Limits

Swiss Pfandbriefe are issued in individual series, which must match the repayment profile of the Pfandbrief loans to member banks, eliminating interest rate and funding risks. Currency risk does not exist as both the loans to member banks and the Pfandbriefe are issued in Swiss Francs. Therefore, there is no need for derivatives to hedge market risks. Liquidity concentration risk is limited by individual limits for each member bank. The investment policy for free assets limits credit and market risks on counterparty and portfolio level.

Growth of the Pfandbrief institutes is limited as the required capital must exceed 2% of the total Pfandbrief issuance volume of the respective institute (Article 10 PfG).

VI. TRANSPARENCY

Although Switzerland does not yet participate in the 'Covered Bond Label' self-certification programme, PB publishes the 'Pfandbriefbank Pool' report (incl. member bank rating distribution, region, property type, property type by cover value size, loan to value) semi-annually on its home page (www.pfandbriefbank.ch).

VII. COVER POOL MONITOR AND BANKING SUPERVISION

PB valuates and monitors the cover pool independently of the member bank (which grants the mortgage to the house owner) and monitors eligibility and overcollateralisation of the cover pool daily. Mortgages are back-tested by means of a hedonic valuation model. Additionally, a special cover pool committee reviews substantial mortgages and visits major properties.

The Swiss Federal Council approves the articles of association and valuation regulations and nominates one member of the board of directors.

Swiss Pfandbrief institutes as well as their member banks are supervised by FINMA and audited by external audit firms.

In addition, Moody's rates all Swiss Pfandbriefe with Triple A, investors analyse the annual reports of the Pfandbrief institutes, various analysts publish research reports and/or ratings and last but not least the capital market values Swiss Pfandbriefe.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS

In the event of a member bank's insolvency, the Pfandbrief institute has a priority claim on the registered collateral (Article 23 PfG). The insolvency of a member bank does not directly trigger the acceleration of outstanding Pfandbriefe. In this respect, the Pfandbrief institute functions as a buffer between the investors and the member banks. The Pfandbrief institutes have own funds at their disposal and maintain an unencumbered SNB-/repo-eligible bond portfolio within their free assets.

Should there be justified concern that a member bank is overindebted, has serious liquidity problems or that the bank no longer fulfils the capital adequacy provisions (Article 25 Banking Act, BankG), FINMA can order:

a) protective measures pursuant to Article 26 BankG. However, FINMA can order deferment of payments or payment extension, except for mortgage-secured receivables of the Pfandbrief institutes (Article 26 h BankG). FINMA can also order the delivery of the cover assets and then act as fiduciary (Article 40 PfG).

b) restructuring procedures pursuant to Article 28 – 32 BankG: If it appears likely that the member bank can continue to provide individual banking services (regardless of the continued existence of the bank concerned) or can recover, FINMA can issue the necessary provisions and restructuring orders (Article 28 BankG):

> Convertibility of claims (Article 49 Banking Insolvency Ordinance, BIV): All bank debt capital may be converted into equity capital, explicitly excluding a) defined "privileged claims", b) "secured claims to the extent that they are secured" (incl. Pfandbrief loans) and "offset table claims to the extent that they are offsettable."

> Reduction in claims (Article 50 BIV): In addition to or instead of converting bank debt capital into bank equity capital, FINMA may order a partial or full reduction in claims, again excluding the aforementioned letters a and b (of Article 49 BIV) and letters a to c of Article 48 BIV.

> In our view, this framework leads to the Swiss bank loss absorption waterfall as shown on the right hand figure (source: resolution of global systemically important banks, FINMA, 7 August 2013).

Swiss Banks - Loss absorption waterfall

<table>
<tr><th>Common equity tier 1 (CET1)</th><th>Equity</th><th>Full loss absorbency</th></tr>
<tr><td>Additional tier 1 (AT1)</td><td rowspan="4">Subordinated debt</td><td rowspan="2">Automatic loss absorbency or contractual bail-in</td></tr>
<tr><td>Tier 2 point of non-viability (PONV, incl. CoCo)</td></tr>
<tr><td>Old style tier 1 and tier 2</td><td rowspan="4">Statutory bail-in</td></tr>
<tr><td>Other</td></tr>
<tr><td>Senior unsecured liabilities</td><td rowspan="2">3rd insolvency debt class</td></tr>
<tr><td>Non priviledged deposits</td></tr>
<tr><td>Priviledged claims/deposits, secured claims (incl. pfandbrief loans) and offsettable claims)</td><td>Debt</td><td>No bail-in</td></tr>
</table>

c) the member bank's liquidation due to bankruptcy pursuant to Article 33 – 37 g BankG: Should there be no prospect of restructuring or if a restructuring were to fail, FINMA will have to revoke the bank's licence, order its liquidation and make this public (Article 33 BankG). The BIV defines restructuring proceedings and bankruptcy proceedings under Article 28 – 37 g BankG in detail. This includes that FINMA may draw up a separate schedule of claims for claims secured by a registered pledge of the Pfandbrief institutes, if systemic risks can only be restricted by doing so (Article 27 BIV).

During its meeting on 8 March 2019, the Swiss Federal Council initiated the consultation on the partial revision of the BankG. Amongst other points, the BankG regulates the restructuring procedure for banks on the basis of principles. Details on structural and operational organisation are defined in the BIV. In order to strengthen legal certainty, selected instruments are to be anchored at the statutory level. At the same time, the functionality of the Swiss Pfandbrief system in the event of insolvency or bankruptcy of a member bank should be strengthened.

IX. RISK-WEIGHTING & COMPLIANCE WITH INTERNATIONAL LEGISLATION

The Bank for International Settlements regularly assesses the consistency of implementation of Basel standards. Within the Regulatory Consistency Assessment Programme (RECAP) the Basel Committee on Banking Supervision rated Switzerland with an overall "compliant" grade for the risk based capital standards (June 2013), for G/D-SIB standards (June 2016) and for the Liquidity (LCR) standards (October 2017). The Basel Committee on Banking Supervision has not yet assessed the Swiss implementation of the 'large exposure framework'.

Basel III – capital standards

Switzerland implements Basel III capital requirements by means of the 'Banking Act' and the 'Swiss Capital Adequacy Ordinance' (CAO) into national law. The CAO has two approaches to measure credit risks in banking books: The BIS standard approach and the internal ratings-based approach. Under the BIS standard approach Swiss Pfandbriefe have a 20% risk weighting.

Basel III – liquidity standards

Switzerland implements Basel III liquidity requirements by means of the 'Banking Act' and the 'Liquidity Ordinance' (LiqO) into national law. Swiss Pfandbriefe fulfil the Liquidity Coverage Ratio criteria for high-quality liquid assets (Article 15b of LiqO for LCR HQLA 2a: Covered bonds, not self-issued, rated AAA or AA). As a second minimum liquidity requirement for Swiss banks the 'Net Stable Funding Ratio' (NSFR) is planned to come into effect in 2021.

Beyond the Basel risk framework, Article 9 of the National Bank Act also lists the open market operations and standing facilities that the Swiss National Bank (SNB) may contract. The preconditions for entering into a standing intraday or liquidity facility are the granting of a limit by the SNB and the provision of eligible collateral. Only securities included in the latest SNB GC basket may be pledged as collateral for repo transactions (www.snb.ch, financial markets, monetary policy operations, collateral eligible for SNB repos). Swiss Pfandbriefe are part of the SNB GC list and are therefore eligible.

X. INVESTORS BENEFITS

An investor in Swiss Pfandbriefe benefits from

> the special institute principle with strictly limited scope.

> Swiss legislation applicable for all contracts within the Swiss Pfandbrief collateral chain.

> the cover pool, which only includes eligible Swiss franc mortgages on Swiss real estate properties.

> the fourfold security which is 1) the creditworthiness of the Pfandbrief institute, 2) the creditworthiness of the member bank, 3) the creditworthiness of the mortgager and 4) the market value of the real estate property itself.

> in the case of PB: The value of the real estate property is independently determined by PB and not by the member bank.
> in the case of PZ: Explicit state guarantee for most of its member banks[1].
> the fact that since the establishment of the PfG in 1930 neither an investor nor a Pfandbrief institute have ever suffered a loss.

Issuers: Pfandbriefbank schweizerischer Hypothekarinstitute AG (PB) and Pfandbriefzentrale der schweizerischen Kantonalbanken AG (PZ).

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/82/Swiss_Pfandbriefe

1 Three of PZ's member banks do not benefit from a cantonal guarantee, namely Banque Cantonale Vaudoise AG, Berner Kantonalbank AG and Banque Cantonale de Genève AG.

3.39.2 SWITZERLAND – CONTRACTUAL LAW BASED COVERED BONDS

By Bernd Volk, Deutsche Bank, Marco Brück, Valiant Bank, Boudewijn Dierick, ECBC Chairman, BNP Paribas, and Michael McCormick, Credit Suisse

I. FRAMEWORK

In 2009 and 2010 respectively, UBS AG (UBS) and Credit Suisse AG (Credit Suisse) established contractual covered bond programmes in order to access covered bond funding outside of the CHF market. UBS and Credit Suisse use Swiss and English law contractual provisions to implement structural features that are standard in the covered bond market. However, in response to evolving regulatory environment and to comply with the Swiss "too big to fail" requirements, Credit Suisse and UBS have since implemented changes to their legal entity structures. Among the required changes were the establishment of new Swiss banking subsidiaries intended to hold (among other businesses) their retail mortgage businesses. These changes necessitated structural changes to the covered bond programmes which UBS and Credit Suisse implemented in June 2015 and November 2016, respectively. Following these changes, Credit Suisse and UBS no longer issue covered bonds out of these programmes.

Valiant Bank AG (Valiant) and Credit Suisse (Schweiz) AG (CS Schweiz) have since launched contractual covered bond programmes in order to diversify their funding sources. As with UBS and Credit Suisse legacy covered bond programmes, these are structured programmes that are not subject to the Swiss Pfandbriefe legislation. However, in contrast to UBS and Credit Suisse's legacy programmes, both of these programmes exclusively use Swiss law provisions and have so far only issued CHF-denominated series.

II. STRUCTURE OF THE ISSUER

In line with the guarantor Special Purpose Vehicle (SPV) model used in the United Kingdom and the Netherlands (among other jurisdictions), the issuers have established Swiss based special purpose companies to guarantee their payment obligations for the benefit of the covered bondholders. All programmes feature direct recourse to the issuer, which remains primarily responsible for payments on the bonds. These guarantor entities hold security over the programmes' respective cover pools and may use the cover pool assets to make payments on the covered bonds should the issuer fail to do so. In case of Valiant, in addition to mortgage claims, the covered bondholders benefit from accessory preferential claims pledged by the mortgagor for the benefit of the issuer and transferred to the guarantor by way of security. The guarantee comes into operation following an issuer event of default, subject to certain conditions. All covered bonds issued under the respective programmes rank *pari passu* with each other and benefit equally from the guarantee. The guarantors are ring-fenced, bankruptcy-remote entities designed to be unaffected by the insolvency of the group to which they are consolidated (guarantors are majority-owned by their respective issuer).

UBS and Credit Suisse are large, systemically important Swiss financial institutions regulated by the Swiss banking regulator, the Swiss Financial Market Supervisory Authority (FINMA). Valiant Bank is an independent Swiss retail and SME bank that operates exclusively in Switzerland and is regulated by the Swiss banking regulator FINMA. The covered bonds issued by Credit Suisse, UBS and Valiant are direct, unsubordinated, unsecured and unconditional obligations benefiting from a guarantee given by their respective guarantor vehicles. Before an issuer event of default, the issuers must make all payments of interest and principal due on the covered bonds.

In June 2015, UBS transferred its residential mortgage business to UBS Switzerland AG, a newly established domestic subsidiary of UBS. Concurrently, a joint and several liability arrangement was put in place, under which UBS Switzerland AG assumes a contractual joint and several liability for all contractual obligations of UBS under the programme, including UBS's covered bonds. Similarly, in November 2016, Credit Suisse transferred its residential mortgage business to CS Schweiz, a newly established domestic subsidiary of Credit Suisse and concluded the same joint and several liability arrangements for its programme.

III. COVER ASSETS

The collateral of Swiss contractual law based covered bonds consists of Swiss residential mortgage loans to private individuals and the related mortgage certificates securing such mortgage loans. In case of Valiant, in addition to mortgage claims, the covered bondholders benefit from accessory preferential claims pledged by the mortgagor for the benefit of the issuer and transferred to the guarantor by way of security. The accessory preferential claims are second and third pillar pension fund assets and are not taken into account in the cover pool and in the calculation of the asset coverage test.

Substitution assets can also be used as collateral of the covered bonds as long as their aggregate value does not exceed 15% of the cover pool. They comprise deposits in CHF (foreign currencies eligible only for hedging purpose) and authorised investments. The latter need to comply with stringent ratings to be cover pool eligible.

IV. VALUATION AND LTV CRITERIA

The eligibility criteria for initial inclusion in Credit Suisse's cover pool limits mortgages to those with loan-to-value (LTV) of less than or equal to 100%, while the UBS and Valiant programmes limit eligible mortgages to those with LTV of less than or equal to 80%. Certain provisions within the programmes' asset coverage test (ACT) implement LTV limits by capping the value of each mortgage loan at a specified current LTV. This limit is 70% LTV in the Credit Suisse programme and 80% in the CS Schweiz, UBS and Valiant programmes.

The mortgages' LTV is regularly calculated using current market values. In case of both Credit Suisse and Valiant programmes, appraisals are undertaken for each mortgage loan application by a valuation model (the IAZI). This comparative approach is one of the main methods used for the appraisal of real estate properties in Switzerland. The property is compared with thousands of other objects previously sold on the market. The price of the object is statistically estimated by comparing the price of properties with similar attributes in comparable locations. The credit risk management department, responsible for the continuous monitoring of the bank's mortgage portfolio, has the discretionary power to trigger a revaluation based on its analysis outcomes. UBS conducts an estimate of the collateral value for all residential mortgages based on the Wüest & Partner valuation model, which is also a hedonic regression model. If other valuation methods are available, UBS takes these into consideration and generally uses the lowest of the estimated values as its assessed market value.

V. ASSET – LIABILITY MANAGEMEMT

The ACT determines whether the value of the cover pool assets is sufficient for the timely payment of capital and interest owed under the covered bonds. The ACT is used to confirm that the minimum overcollateralisation (OC) requirements are met. The test is carried out monthly and the results are disclosed in the investor reporting. In addition to the LTV limitations described above, a second part of the ACT haircuts the full balance of the mortgages using an asset percentage (AP). The AP is derived from periodic rating agency feedback and sized to maintain a triple-A rating. The value given to the mortgage assets under the ACT is the lower of (i) the result when applying the LTV limits described above or (ii) the value of the mortgage assets multiplied by the AP.

In addition, credit is given to cash and substitute assets while further deductions are made for loans in arrears, borrower set-off risk and potential negative carry. The APs in both UBS and Credit Suisse programmes may fluctuate over time, but are constrained by a maximum value. Valiant uses an alternative ACT ("Aktivendeckungstest"), including a minimum OC. The adjusted value of the Valiant cover pool always has to be equal to at least the nominal value of the outstanding covered bonds including a minimum OC, corresponding to the OC required to maintain the actual ratings up to a maximum committed level capped by contractual provisions at 50%.

The Swiss contractual law covered bond programmes benefit from additional safeguards:

> Exposure to interest rate and currency risks are mitigated by use of derivatives in the UBS programme and legacy Credit Suisse programme. In case of Valiant and CS Schweiz, the option to implement derivative instruments is available but has not been used until yet.

> Liquidity risk is mitigated by the requirements to establish reserve funds, maintenance of pre-maturity liquidity for hard bullet covered bonds and the inclusion of 12-month extension periods for soft bullet covered bonds. In case of Valiant, the soft bullet structure may not only be applied to a covered bond series after an issuer event of default but may also applied to all outstanding covered bond series after a guarantor event of default (to reduce fire sale risk).

> Minimum rating requirements are in place for the third parties that support the transaction, including the account bank, corporate services provider, servicer and cash manager.

> Commingling risk is mitigated by the requirement of all collections arising from the cover pool assets to be transferred into guarantor cover pool bank account after a specific rating downgrade of the issuer.

> Independent audits of the calculations undertaken on a regular basis by a cover pool monitor.

Upon an issuer event of default following the service of a notice to pay, the AT is run on each calculation date instead of the ACT, and no- interest cover tests are run. The AT is similar to the ACT and is designed to mitigate time subordination between the covered bond series therefore ensuring that the cover pool will be sufficient to make payments as required under the guarantee. Upon failure of the test, all covered bonds accelerate against the guarantor.

VI. TRANSPARENCY

The issuers have committed to publishing monthly investor reports on a timely basis. These reports provide information relevant to investors including:

> The monthly calculations of the ACT and the interest coverage test.

> Details of outstanding covered bonds and list of parties involved in the transaction.

> The current balance of programme accounts.

> A mortgage portfolio summary disclosing total balances, average loan balance, number of properties, WA remaining terms and WA LTVs.

> Tables showing number properties and mortgages by remaining term, current LTV, total balance, interest rate type, property region, property type, and arrears.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

The issuers are regulated Swiss financial institutions, which are subject to regulation and supervision by FINMA. The cover pool tests comprising the ACT and the ICT as well as AT in case of an issuer's event of default, are checked and verified on a regular basis by an independent cover pool monitor. The results of his review are summarised in cover pool monitor reports for the attention of the guarantor, the issuer and the administrator. The administrator, independent from the issuer, has the duty to advise the bondholder representative (trustee) inter alia upon the breach of a cover pool test. The administrator is responsible for an ongoing monitoring of the cover pool. His main task comprises confirming the accuracy of the inclusion in or the removal from the cover pool, inter alia ensuring that the eligibility criteria are met and verifying that the registered amount in the cover pool is correct. In order to constitute a valid security interest the issuer will no longer be able to dispose over the mortgage certificates by its sole acts. The mortgage certificates can only be accessed with the presence and approbation of the administrator. In addition, rating agencies regularly monitor the programme.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

Upon the insolvency of the issuer, the mortgage receivables and the related mortgage certificates and substitute assets would not form part of the issuer's estate. Accordingly, the asset cover pool may be managed and enforced by the guarantors independently from the corporate insolvency proceedings of the issuers.

There are a number of trigger events for default, the first being an issuer event of default. This can occur in a number of situations including the following:

> Failure to pay any interest or principal amount when due.

> Bankruptcy proceedings being ordered by a court or authority against the issuer.

> Failure to rectify any breach of the asset coverage or interest coverage test.

An issuer event of default would not accelerate payments to covered bondholders, but would allow the trustee to activate the guarantee by serving a notice to pay on the guarantor. Upon the guarantee activation, the cover pool is frozen losing its dynamic nature and no further covered bonds may be issued. The guarantor is required to meet the covered bond obligations using the cash flows generated from the cover pool.

With the exception of one outstanding series issued under the legacy Credit Suisse programme, the covered bonds have been issued under a non-discretionary soft-bullet structure, a maximal 12 months extension of the principal repayment, in order to allow the realisation of the cover pool. The repayment extension is only granted if the bondholder representative (trustee) has served a notice to pay and neither the issuer nor the guarantor have sufficient liquidity for the repayment of the covered bond series concerned. In case of Valiant Bank, the soft bullet structure may not only applied to a covered bond series after an issuer event of default but may also applied to all outstanding covered bond series after a guarantor event of default in order to reduce fire sale risk.

The second event of default is the guarantor event of default. This would arise after an issuer event of default if the guarantor failed to make any payments when due, failure of the amortisation test or bankruptcy of the guarantor. A guarantor event of default would cause the acceleration of payments to covered bondholders and their early redemption at the amount relevant to that particular covered bonds series.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

Swiss contractual-law based covered bonds have a 20% risk-weighting under the standard approach in accordance with the EU Capital Requirement Regulation (CRR) due to not being issued by an EU credit institution but may qualify for Haircut Category L1C of the ECB repo eligible assets criteria as "structured covered bonds" (AT13). At this stage, with all outstanding Valiant Bank covered bonds being denominated in CHF, only three EUR denominated Credit Suisse contractual-law based covered bonds are registered in the ECB collateral database. Swiss contractual law based covered bonds are not based on a specific covered bond legislative framework and therefore are not eligible as level 1 or 2 assets under the European Commission LCR Delegated Act.

Issuers: Credit Suisse AG, Valiant Bank AG and UBS AG.

ECBC Covered Bond Comparative Database:
http://www.ecbc.eu/framework/show/id/82
https://www.ecbc.eu/framework/92/Credit_Suisse_CB
https://www.ecbc.eu/framework/78/UBS_CB
https://www.ecbc.eu/framework/115/Valiant

3.40 TURKEY

By Özlem Gökçeimam, Garanti Bank

I. FRAMEWORK

Turkish mortgage-covered bonds are branded as "*İpotek Teminatlı Menkul Kıymet ("İTMK")*" and "Mortgage Covered Bond ("MCB")" in Turkish and English respectively and are trademarked by the legislation.

The primary legislation with respect to the İTMKs is the Capital Markets Law No. 6362 ("CML") and the secondary legislation is the Communiqué on Covered Bonds[1] No. III-59.1 ("Communiqué") which was published by the Capital Markets Board ("CMB") on 21 January 2014 (as amended from time to time). The Communiqué regulates the MCBs as well as other asset-backed covered bonds; however, this chapter will focus exclusively on MCBs.

Together with its predecessors, the Communiqué is part of a series of legislation following the enactment of "The Housing Finance Law (No: 5582)" on 6 March 2007, which aims to establish a healthy and functioning housing finance system in Turkey.

II. STRUCTURE OF THE ISSUER

İTMKs are capital market instruments qualified as debt instruments, issued within the scope of the issuer's general liability and collateralized by cover assets.

İTMKs may be issued by housing finance institutions (HFIs) and mortgage finance institutions (MFIs). While MFIs are joint stock companies defined in Article 60 of the CML (which entities are joint stock companies, established for the purpose of acquiring and transferring assets with qualifications designated by the CMB, managing such assets or taking such assets as collateral and conducting other activities approved by the CMB within the scope of housing finance and asset finance), HFIs are banks, financial leasing companies and finance companies authorized by the Banking Regulatory and Supervision Agency ("BRSA") to perform housing finance activities.

The issuers are required to obtain CMB approval for the issuance certificate which provides an annual blanket limit and the tranche issuance certificate before each issuance. For the public offerings in Turkey, the prospectus has to be CMB approved as well.

III. COVER ASSETS

An issuer of MCBs is required by the Communiqué to maintain a cover pool for the benefit of such MCBs, which must be in compliance with, inter alia, quantitative statutory tests and the eligibility criteria of the Communiqué. Pursuant to the Communiqué, a cover pool may be created with the following assets:

> receivables of banks and finance companies, resulting from house financing as defined in Article 57 of the CML, which have been secured by establishing a mortgage at the relevant registry;

> commercial loans and receivables of the banks and financial leasing companies and finance companies, which have been secured by establishing mortgage at the relevant registry or, if approved by the CMB; otherwise,

> substitute assets, which include cash (including cash generated from cover assets), Turkish government bonds issued for domestic and foreign investors, securities issued or secured by the central government or the central banks of OECD member states, among some others, and

> derivative instruments fulfilling the conditions of the Communiqué. The Communiqué caps the ratio of the net present value of commercial loans/receivables and the substitute assets separately at 15% of the total net present value of the cover assets.

1 http://www.mevzuat.gov.tr/Metin.Aspx?MevzuatKod=9.5.19314&MevzuatIliski=0&sourceXmlSearch=Teminatl%C4%B1%20Menkul%20K%C4%B1ymetler%20Tebli%C4%9Fi.

In Turkey, almost all mortgage loans are fixed rate loans and, as a result of a change of law in 2009 requiring loans to Turkish citizens to be denominated in Turkish Lira, all are denominated in Turkish Lira other than a very small number of mortgage loans made to foreign citizens with residences in Turkey. Payments on mortgages are almost always monthly and generally are effected by having the lending bank withdraw funds from a bank account held by the borrower with the lending bank.

The maximum maturity for residential mortgage loans in Turkey is typically 240 months (with only one institution providing loans up to 360 months, while some major banks have a maximum maturity of 120 months).

Finally, as a matter of Turkish law, borrowers of mortgage loans are required to maintain earthquake insurance for the related real property, subject to a maximum claim of TL 240,000.

The Communiqué sets out the specific requirements that derivative instruments need to satisfy in order for such derivative instruments to be recognized as part of the cover pool. In general:

> the derivative instrument must be traded on exchanges or the derivative counterparty needs to be a bank or financial institution (multi-lateral development agencies also qualify);

> the derivative counterparty needs to have an investment grade long-term international rating (which is tested at the time of entry into of the derivative instrument);

> the derivative instrument cannot be unilaterally terminated by the derivative counterparty even in the event of the bankruptcy of the Issuer; with the exception that, a provision that the parties may unilaterally terminate the agreements regarding derivative instruments in case of the events provided below may be included in such agreements:

- the issuer fails to satisfy fully or partially its total liabilities and the cover assets including derivative instruments are not sufficient to meet the total liabilities,
- the occurrence of impossibility, illegality under the applicable legislation and material change of legislation with respect to terms of the agreement,
- the early redemption of the MCBs, and
- the non-registration to, or removal from, the cover register of the agreement regarding derivative instruments contrary to the provisions thereof.

In addition, in order to include the provisions that the parties may unilaterally terminate the agreement in the above-mentioned events and in other events that the CMB deems similar to these events, the approval of the CMB must be obtained; and

> the derivative instrument must contain fair price terms and reliable and verifiable valuation methods.

IV. VALUATION AND LTV CRITERIA

The immovable properties securing the mortgage loans must be located in Turkey and the market price of the immovable property is required to have been determined by an independent appraisal company that is listed by the BRSA or the CMB, at the time of utilization of the mortgage loan.

Typically, the appraisers (a) visit the relevant Land Registry Office, municipality and for on-site measurements the real property to be mortgaged, (b) conduct research regarding reference values.

With respect to loan to value requirements, the portions of the residential mortgage loans and commercial mortgage loans exceeding respectively 80% and 50% of the value of the real estate securing them shall not be taken into consideration in the calculation of the cover matching principles, which are discussed in detail in the following section.

The Communiqué requires the issuers to monitor the general changes in the property prices securing their mortgage loans and determine the ratio of such change annually at the end of each calendar year based upon a generally accepted index, if available. The best established index in Turkey is the Property Price Index (Konut Fiyat Endeksi) (the "KFE") released by the Central Bank on a monthly basis. The calculation of the KFE is based upon the price data of all the properties sold in Turkey irrespective of the construction year of the properties. The price data is obtained from valuation reports prepared for the purpose of evaluating mortgage loan applications made to 10 Turkish banks. If the issuers identify a decline in the property prices within a specific geographical region or in Turkey in general, then they must decrease the value of the relevant property by applying the property price change ratio and re-calculate whether the cover pool assets comply with the requirements of the Communiqué.

V. ASSET – LIABILITY MANAGEMENT

The cover pool must also comply with certain cover matching principles, which shall be monitored by the issuer at every change relating to the cover assets and, in any case, at least once a month. The matching principles involve:

> **Nominal value matching:** The nominal value of the cover assets may not be less than the nominal value of the MCB. While calculating the nominal value for purposes of this test, the balance of the principal amounts of the mortgage loans, the issuance price of the discounted debt instruments, and the nominal value of the premium-debt instruments shall be taken into consideration. Contractual value of the derivative instruments shall not be taken into consideration for the calculation of nominal value matching.

> **Cash flow matching:** The sum of interest, revenues and similar income that are expected to be generated from cover assets within 1 year following the calculation date may not be less than the similar payment obligations expected to arise from total liabilities under the MCBs and derivative instruments if any, during the same period.

> **Net present value matching:** The net present value of the cover assets must at all times be at least 2% more than the net present value of total liabilities under the MCBs and derivative instruments if any. This mandatory excess cover of 2% must be constituted of substitute assets.

> **Stress tests:** The responsiveness of the net present value matching to the potential changes in interest rates and currency exchange rates shall be measured with monthly stress tests. In order to measure the effect of the changes in interest rates, the yield curves obtained from swap rates shall be slid downward and upward in parallel. Parallel sliding shall be made by increasing or decreasing the TL interest rate applicable for each maturity by 300 basis points and the foreign currency interest rate applicable for each maturity by 150 basis points. In order to measure the effect of changes to the currency exchange rates on the cash flows in foreign currency, the foreign exchange buying rate shall be increased and decreased by 30%.

VI. TRANSPARENCY

According to Article 15 of the CML, information, events and developments which may affect the value and price of capital market instruments or the investment decision of investors shall be disclosed to public by issuers or related parties.

The Public Disclosure Platform (PDP) is an electronic system through which electronically signed notifications required by the capital markets and Borsa Istanbul regulations are publicly disclosed. In addition to Borsa Istanbul companies and ETFs, investment firms, mutual funds, pension funds and foreign funds may submit notifications to PDP. Independent audit companies, on the other hand, send the electronically signed financial statements for which independent audit is required, to the relevant company electronically in order to be announced to the public. However, some information on PDP may be published only in Turkish. Please see https://www.kap.org.tr/en/menu-content/About-PDP/General-Information for further information.

In order to ensure that the covered bond holders are informed:

> compliance reports on the cover matching principles and the notifications made by the cover monitor (a third party who monitors the cover pool) are required to be announced on the website of the issuer and on the PDP on the day on which the cover monitor delivers its report or the notification to the issuer;

> an investor report is required to be announced on the website of the issuer and on the PDP within six business days following the end of the quarterly accounting period; and

> the fact that the issuer has not fulfilled its payment liabilities under the MCBs partially or fully is required to be announced on the website of the issuer and on the PDP on the date when such fact is known to the issuer.

If MCBs are issued without any public offering, the above-noted announcements are required to be delivered to the MCB investors online, through the Central Registry Agency, and shall be published in the website of the issuer for access by the MCB investors. The Issuer can freely determine the method of such announcements if MCBs are issued abroad.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

Pursuant to the Communiqué, an issuer is required to appoint a cover monitor who will be responsible for monitoring the cover pool and will report to the CMB and the issuer with regard to the cover pool. The cover monitor is appointed by the issuer and must possess the expertise and experience necessary to fulfil all of its statutory duties. The company that conducts the independent audit on the financial statements of an issuer may not be designated as a cover monitor. The cover monitor is to be appointed through a cover monitor agreement, a copy of which is to be sent to the CMB within three business days of its execution. The cover monitor can only be removed from its duties by the issuer based upon just grounds to be submitted to the CMB in writing and by obtaining the consent of the CMB.

Cover monitor should, among others:

> monitor formation of the cover pool with eligible assets;

> monitor cover pool's compliance with cover matching principles and accuracy of the stress test measurements;

> in case the cover register is kept in electronic form, inspect the adequacy of such system and submit a report including the results of this inspection to the issuer, together with a copy to the Board;

> examine the accuracy of the entries made regarding addition, removal or replacement of cover assets by reviewing the underlying loan documentation and other information and documents, as it may deem necessary;

> in the event of a cover matching principle violation or a default by the issuer, inspect whether measures in connection therewith set forth under the Communique is followed;

> prepare a report at least semi-annually (at least quarterly in case of issuances offered to public in Turkey) indicating its findings regarding compliance with cover matching principles and entries made regarding removal or replacement of cover assets and, if applicable measures to be taken following violation of cover matching principles or default.

The cover monitor is required to report any inconsistencies in the cover register or failures in matching principles to the issuer.

The cover monitor is also authorised to conduct a discretionary review of the cover assets, including substitute assets as well as the derivative instruments in place.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

A cover register held by the issuer permits the identification and segregation of the cover assets. The collateral backing the MCBs is to be registered in book and/or in electronic form.

Until the MCBs are completely redeemed, even if the management or the supervision of the issuer is transferred to public institutions, cover assets cannot be disposed of for any purpose other than securing MCBs, pledged, or designated as collateral, attached by third parties, including for the collection of taxes or other public receivables, or subject to injunctive decisions of courts or included in the bankruptcy estate of the issuer.

In the event that: (a) the management or supervision of an issuer is transferred to public institutions, (b) the operating license of an issuer is cancelled or (c) an issuer is bankrupt, the CMB may appoint another bank or a mortgage finance institution (in both case, satisfying the requirements for issuers of covered bonds), the cover monitor, another independent audit company or an expert third party institution approved by the CMB to act as an administrator. This administrator would not be assuming the liabilities arising from the cover pool but would manage the cover pool and seek to fulfil the liabilities arising from the cover pool from the income generated from the cover pool.

The administrator may actively manage the cover pool to seek to ensure that the payments under the MCBs and derivative instruments arising from the cover pool are made in a timely manner, and if necessary may sell assets, purchase new assets, utilise loans or conduct repo transactions. The administrator also may (after obtaining the approval of the CMB) transfer the cover pool and the liabilities arising from the cover pool partially or fully to another bank or to a mortgage finance institution satisfying the qualifications required for issuers. In such case, transferee bank or MFI shall become the owner of the cover assets upon such transfer and shall become responsible for the payments arising from total liabilities. The administrator may also suggest the CMB that the MCBs be redeemed early.

Pursuant to the Communiqué, the covered bondholders and hedging counterparties do not need to wait until the completion of the liquidation of the assets in the cover pool for recourse to the other assets of the issuer, with respect to which they will rank pari-passu with unsecured creditors of the issuer.

IX. COMPLIANCE WITH EUROPEAN LEGISLATION

As Turkey is not currently a member of the EU, MCBs are not UCITS-compliant and, therefore, are not compliant with the EU's Capital Requirements Regulation (CRR) and do not qualify for beneficial treatment under the CRR.

The EU opened accession negotiations with Turkey on 3 October 2005. As a candidate for EU membership, Turkey will be obliged to be compliant with EU Directives in case of full membership. Thus, in recent years Turkish authorities were strongly aligning banking regulations to EU standards. The revised Accession Partnership of the EU with the Republic of Turkey from 18 February 2008 foresees that Turkey adapts its regulations to the CRR.

The EU progress report on Turkey, published in October 2013, acknowledges that preparations in the area of financial markets are "advanced" and specifically mentions the newly adopted CML, which aims at "further aligning the legislative framework with the acquis", the whole body of EU law.

Issuers: VakifBank.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/50/Turkish_Covered_Bonds

3.41 UNITED KINGDOM

By John Millward, HSBC and Ian Stewart, RCBC

The UK covered bond market has been established since 2003 and was initially based on general English law structured finance principles before the introduction by HM Treasury in March 2008 of a dedicated covered bond regulatory framework (the Regulated Covered Bonds Regulations 2008 (the "Regulations")). The Regulations overlaid the existing general law and contractual structures, providing the necessary underpinning for compliance under Article 52(4) of Directive 2009/65/EC (the "UCITS Directive") providing the UK structure with benefits including higher investment limits and higher investment thresholds for insurance companies. All UK regulated covered bonds also comply with the definition of covered bonds set out in Regulation (EU) 575/2013 (Capital Requirements Regulation, or "CRR") thereby qualifying for lower risk-weightings. The Regulations were further amended in November 2011 and November 2012 to further promote the "transparency of UK covered bonds and creating a more prescriptive regulatory framework"[1]. The amendments became effective for regulated programmes from 1 January 2013.

Regulated covered bonds are subject to special public supervision by the Financial Conduct Authority (FCA) as Special Public Supervisor, whose stated aims are to ensure a robust regulated covered bond market in the UK, and to ensure that quality is maintained to preserve investor confidence in the UK regulated covered bond market's reputation. The FCA has a wide range of enforcement powers under the Regulations, including the power to issue directions, de-register issuers or fine persons for any breaches of the requirements under the Regulations.

I. FRAMEWORK

Under the Regulations, in order to attain "regulated" status there are two general sets of requirements the issuers need to comply with: those relating to issuers and those relating to the covered bond programmes. Issuers are permitted (but are not required) to submit their covered bond programmes to the FCA for recognition. Those issuers and covered bonds that meet all of the criteria set out in the Regulations and are approved by the FCA are added to the register of regulated covered bonds maintained by the FCA[2]. The Regulations only apply to those covered bonds which have been admitted to the register. In practice, all programmes which are still being used for new primary issuance are regulated under the RCB Regulations, with only a small number of legacy programmes remaining unregulated.

Most elements of the regulated covered bond structure are governed by contract, with the Regulations providing an overarching legislative and supervisory framework without prescribing the complete design and contractual arrangements for the product. Structures are, by and large, relatively homogenous among themselves as a consequence of a deliberate intention from relevant market stakeholders to ensure comparability between programmes. The Regulations do, however, prescribe certain key structural principles and requirements, including a minimum statutory overcollateralisation amount of 108%, the requirement that assets must always remain capable of covering claims attaching to covered bonds at all times, and priority of claims against the cover pool in a winding up scenario. The FCA also has a veto over material amendments to the contracts, broad powers to enforce its provisions and conducts its own rigorous ongoing review of regulated programmes.

II. STRUCTURE OF THE ISSUER

The Regulations require the issuer to be a credit institution authorised in the UK to carry out regulated activities, such as deposit-taking. It must also have a registered office in the UK and meet certain additional criteria set out by the FCA.

1 All UK regulated covered bond key documents are available at the following link: https://www.fca.org.uk/firms/regulated-covered-bonds/key-documents.

2 The register may be found at https://www.fca.org.uk/firms/regulated-covered-bonds/register.

Regulated covered bonds are direct, unconditional obligations of the issuer; however, investors also have a priority claim over a pool of cover assets in the event of the insolvency of or default by the issuer. The Regulations require all cover assets (including any substitution assets) to be segregated from the insolvency estate of the issuer by being sold to a special purpose entity (referred to in the Regulations as the "owner"), which guarantees the issuer's obligations under the bonds and provides security over the cover assets to a security trustee on behalf of the investors. All transactions to date have used a limited liability partnership (LLP) for this purpose, with the transfer effected via equitable assignment. The purchase price paid by the LLP for the cover assets is either cash (funded by an inter-company loan from the issuer) or a partnership interest in the LLP (a "capital contribution in kind").

If the guarantee is activated, the LLP will use the cash flows from the cover pool to service the covered bonds. If these cash flows are insufficient, or within a certain timeframe of the legal final maturity of the bonds, the LLP is permitted to sell cover assets, within certain defined parameters and subject to meeting certain tests to ensure equality of treatment of bondholders.

III. COVER ASSETS

The Regulations broadly allow the following asset types:

- Assets which are listed in Article 129 of the CRR, subject to the following restrictions:
  - Exposures to credit institutions with ratings below Credit Quality Step 1 (AA-) as set out in the CRR are not permitted; and
  - Securitisations are not permitted.
- Certain assets which are not permitted under the CRR - namely loans to registered social landlords and loans to public-private partnerships (and loans to providers of finance to such companies, and subject in each case to certain restrictions).
- Liquid or "substitution" assets up to the prescribed limit (10% in most cases to date).

Issuers are required to designate programmes as either "single asset type" or "mixed asset type". Mixed asset type programmes are allowed to include any of the assets set out above, whereas single asset type programmes would be required to select either residential mortgages, commercial mortgages, or public sector loans (including social housing and PPP loans, which are not CRR-eligible), in each case as defined in the CRR.

The Regulations include a narrow definition of liquid or "substitution" assets, which are defined as UK government bonds (or other government bonds which comply with the requirements set out in Article 129(1)(a) or (b) of the CRR or deposits in GBP or another specified currency held with the issuer or with a credit institution which comply with the requirements set out in Article 129(1)(c) of the CRR.

Cover assets must be situated in EEA states, Switzerland, the US, Japan, Canada, Australia, New Zealand, the Channel Islands or the Isle of Man. If an issuer includes non-UK assets in its cover pool, it must get confirmation that the laws of the relevant jurisdiction would not adversely affect the rights of the LLP or the security trustee.

The Regulations require cover assets to be of high quality, and the FCA is permitted to reject any application for regulated status if it believes that the quality of the proposed assets will be detrimental to the interests of investors in regulated covered bonds or the good reputation of the regulated covered bonds sector in the United Kingdom.

In all of the programmes that have been registered to date, the cover pools consist of assets with narrower eligibility criteria than those allowed under the Regulations, and comprise only UK residential mortgages and the substitution assets described above.

IV. VALUATION AND LTV CRITERIA

The properties securing the mortgage loans are valued using UK mortgage market accepted practice. A surveyor is often used, although other methods (such as automated valuation models) are also accepted. Residential property values are indexed to either the ONS, Halifax or Nationwide real estate price indices, each of which reports quarterly on a region-by-region basis. Price decreases are fully reflected in the revaluation, while in the case of price increases a 15% haircut is generally applied.

The LTV limit for mortgages varies across the different programmes (see Figure 1), but in all existing programmes it is below the 80% level for residential mortgages required under the CRR and the Regulations. Loans with LTV above this limit may be included in the pool, but the amount of the loan which exceeds the limit is excluded from the Asset Coverage Test (ACT). Loans which are in arrears are either repurchased by the issuer or subject to additional haircuts (see Figure 1).

V. ASSET – LIABILITY MANAGEMENT

For UK regulated programmes, overcollateralisation (OC) levels are determined according to the higher of: (i) the regulatory minimum of 108% specified in the Regulations calculated on a nominal basis, (ii) contractual minimum amounts specified in the legal agreements, (iii) requirements imposed by the FCA, and (iv) amounts required to pass the programme's ACT (in particular as required to support the given rating level from the relevant rating agencies). However, in many programmes, the contractual minimum amounts specified are already in excess of this regulatory minimum requirement, and in any case the OC required by the rating agencies and/or FCA are typically higher.

A key principle of the Regulations is that they require the cover pool to be capable of covering all claims attaching to the bonds at all times. In addition to the amounts required either under the regulatory minimum or under the contractual requirements, the minimum OC level for any programme is also considered by the FCA on a case-by-case basis, taking into account the quality of the cover assets, risk-mitigation measures (such as swaps and downgrade triggers) and asset-liability mismatches. The FCA has the power to require the issuer to add further assets to its cover pool if it deems the collateral to be insufficient.

The principal contractual requirement under UK structures is the presence of a dynamic ACT which must be carried out on a monthly basis to ensure that minimum OC requirements are satisfied. The ACT requires the discounted value of the cover pool (after applying the haircuts listed below) to be equal to or exceed the principal amount outstanding of covered bonds. The following haircuts are applied:

> The adjusted value of the mortgage pool is calculated by taking the lower of: (i) balance of mortgages up to the indexed LTV limit specified in the programme documents, and (ii) the asset percentage multiplied by the balance of mortgages.[3] Performing mortgages get credit 60-75% while for non-performing mortgages (i.e. >3m in arrears) this is 0-40%, depending on the programme.

> Any cash or substitution assets are also included.

> Additional haircuts are applied to mitigate set-off risk, redraw risk on flexible mortgages (if appropriate), and potential negative carry.

The asset percentage is determined on an on-going basis by the rating agencies and is subject to a maximum as set out in the programme documents (which corresponds to the minimum contractual requirement, Figure 1).

3 For example: Let us assume a cover pool which contains two loans. Each loan has a principal balance of GBP 80 and is secured by a property worth GBP 100. If the ACT applies an LTV cap of 75% and an asset percentage of 90%, the issuer will get credit for GBP 144 of loans: applying the LTV cap would allow GBP 150 (maximum 75% LTV for each loan); but the asset percentage allows a lower amount (GBP 160 x 90% = GBP 144) and therefore takes precedence.

The issuer is required to rectify any breach of the ACT within a specified timeframe by transferring additional cover assets to the LLP. If the breach is not rectified within the allowed remedy period, the trustee will serve a notice to pay on the LLP (see Section VIII below). The issuer may also become liable to enforcement action by the FCA.

An amortisation test is run on each calculation date after the delivery of a notice to pay (see Section VIII below), which is designed to ensure that the cover pool will be sufficient to make payments under the covered bonds as required under the guarantee. The amortisation test is similar to the ACT, but more simply tests whether the principal balance of mortgages is sufficient to make payments in full on covered bonds, taking into account negative carry. If the test is failed, the covered bonds will accelerate against the LLP.

Most UK covered bond transactions currently in the market have been issued with a soft-bullet maturity. Following the service of a notice to pay, the legal final maturity may be extended, typically by 12 months, in order to allow the realisation of the cover assets. It is important to note that the issuer does not have the option to extend the bond's maturity; failure by the issuer to repay the bond in full on the scheduled maturity date would result in an event of default.

Certain programmes include a hard bullet option, whereby a "pre-maturity test" is designed to ensure that the LLP has sufficient cash available to repay the bonds, in full, on the original maturity date in the event of the issuer's insolvency. If, in a specified period before a maturity date (6-12 months, depending on the issuer and the rating agency), the issuer's ratings fall below certain specified triggers (typically A-1 / P-1 / F1), the pre-maturity test requires the LLP to cash-collateralise (either via cash contributions from the issuer or by selling cover pool assets) its potential obligations under the guarantee. Following the implementation of the LCR Delegated Act and the consequent liquidity impact of a hard bullet option, most issuers only use the soft bullet (extendible) maturity option going forward and indeed certain programmes have converted legacy hard bullet issuances to soft bullets via investor consent solicitation processes.

All regulated covered bond programmes include a number of other safeguards. In particular, there are minimum rating requirements for the various third parties that support the transaction, including the swap counterparties and bank account providers, and an independent asset monitor is required to undertake an audit of the cash manager's calculations on a regular basis. Furthermore, if the issuer's short-term ratings are below certain trigger thresholds (typically A-1+/P-1/F1+), the LLP is required to establish and maintain (from the asset cash flows), a reserve fund which is the higher of (i) the next three months' interest payments on a rolling basis, and (ii) the next following interest payment, together with the relevant amount of senior costs including a buffer. This amount is retained in the LLP's bank account.

VI. TRANSPARENCY

UK regulated covered bond programmes benefit from extremely detailed investor reporting conventions. The market has conformed to a relatively high standard of reporting since inception, but in addition the FCA requires detailed reporting to be provided by regulated issuers in its capacity as special public supervisor.

Similarly, transparency is to a large extent driven by the eligibility criteria in the Bank of England (BoE) Sterling market operations, under which (among other things) issuers must publish transaction documentation, provide homogenised transaction summaries and investor reports, and publish loan level data.

FCA reporting requirements are closely aligned with the BoE criteria but also include certain additional items not included in the BoE criteria. Since the introduction of the updated amendments, all regulated issuers comply with both sets of rules.

In addition, seven of the fourteen UK regulated covered bond issuers (Clydesdale Bank, Coventry Building Society, Lloyds Bank, Nationwide Building Society, National Westminster Bank plc, Santander UK and Yorkshire

Building Society) have adopted the ECBC label initiative and report in the UK National Transparency Template: https://www.coveredbondlabel.com/issuers/national-information-detail/27/.

VII. COVER POOL MONITOR AND BANKING SUPERVISION

An applicant under the Regulations must be a credit institution authorised in the UK to carry out regulated activities, such as deposit-taking. Issuers must satisfy the FCA that their programmes comply with the criteria set out in the Regulations and provide, among other things:

> Details on the quality of cover assets and the ability of the assets on the issuer's balance sheet to satisfy substitution requirements;

> Details concerning the programme structure, such as the cover pool eligibility criteria, the formulae used to calculate compliance with minimum OC requirements, ability to meet payments on a timely basis and ratings triggers;

> Details concerning asset and liability management, audit and controls, risk management and governance framework;

> Details on the proficiency of cash management and servicing functions;

> Detailed analysis on the ability of the assets and the mitigants within the programme structure to address inherent interest rate, currency, asset and liability mismatch and market value risks;

> Arrangements for the replacement of key counterparties; and

> Independent legal and audit opinions on the compliance of the issuer and programme with the Regulations.

The issuer is responsible for monthly cover pool monitoring. The FCA must be notified by the issuer of any breaches of the ACT, and may also require the issuer to provide such additional information about the cover pool as it considers fit. All existing programmes have at least one internationally recognised rating agencies who will also undertake detailed reviews both on a condition precedent to each issuance, and thereafter on at least a quarterly basis as part of ongoing transaction surveillance. The rating agencies may revise the asset percentage as part of these review processes, either due to variations in asset quality or embedded transaction risk factors, or due to periodic rating criteria change.

All programmes since inception have included an independent third party asset monitor within the existing contractual arrangements who are required to perform various functions within the transaction including an annual review of the ACT calculation, and periodic audit procedures to be undertaken with respect to the asset pool.

In November 2011, the Regulations were updated to formally codify the role of an independent "Asset Pool Monitor" which (i) must be eligible to act as an independent auditor (ii) is conveyed with certain powers to inspect books and records associated with the relevant programme, (iii) must conduct a biannual inspection of the issuer's compliance with its duties as set out in the Regulations, and (iv) must report to the FCA on an annual basis (or sooner if the issuer is found to be failing to comply with its duties). These additional requirements became effective on 1 January 2013 and regulated programmes have generally been updated to reflect the amendments.

VIII. SEGREGATION OF COVER ASSETS AND BANKRUPTCY REMOTENESS OF COVERED BONDS

The Regulations require all cover assets (including any substitution assets) to be segregated from the insolvency estate of the issuer by being transferred to a special purpose entity (referred to as the "owner" in the Regulations), which guarantees the issuer's obligations under the bonds. All transactions to date have used an LLP for this purpose.

The Regulations require that the cover assets be recorded on a register maintained by or on behalf of the issuer and the LLP. The register must be available for inspection by the FCA. The issuer is responsible for ensuring that all cover assets meet the relevant eligibility criteria set out in the Regulations and, if applicable, any additional criteria set out in the programme documents.

The LLP becomes obliged to pay the covered bondholders under the guarantee upon delivery by the bond trustee of a notice to pay following the occurrence of an issuer event of default or other trigger event. The events which can trigger a notice to pay typically include:

> Failure by the issuer or any group guarantors to pay any interest or principal on the covered bonds when due;

> Bankruptcy or similar proceedings involving the issuer or any group guarantors;

> Failure to rectify any breach of the asset coverage test (in most cases); and

> Failure to rectify any breach of the pre-maturity test (if applicable).

To the extent that an issuer event of default has occurred, the bond trustee may commence proceedings against the issuer and any group guarantors on an unsecured basis on behalf of the covered bondholders. The delivery of a notice to pay does not however accelerate payments to noteholders, and the LLP will continue to make payments of interest and principal on the covered bonds on their originally scheduled payment dates (provided that an LLP acceleration event (as described below) has not occurred).

LLP acceleration events typically include:

> The LLP fails to pay any interest or principal when due under the guarantee;

> Bankruptcy or similar proceedings are commenced involving the LLP; and

> After delivery of a notice to pay, the LLP breaches the "amortisation test".

The occurrence of an LLP acceleration event causes the acceleration of payments by the LLP to covered bondholders and the redemption of the bonds at the relevant early redemption amount.

The LLP is reliant on the proceeds derived from the cover assets to make payments under the guarantee. Under the Regulations, in a winding up scenario, no claims against the cover assets can rank ahead of the claims of the regulated covered bondholders. If the proceeds from the cover pool are insufficient to meet the obligations to bondholders in full, investors will continue to have an unsecured claim against the issuer (and any group guarantors) for the shortfall.

IX. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

The list of eligible assets under the Regulations is in some respects narrower than that set out in the CRR (particularly for single asset type programmes as described above). To date, all existing regulated covered bonds are contractually restricted to containing only residential mortgage assets (as well as substitution assets up to the prescribed limit), meaning they are CRR-compliant and therefore benefit from the same preferential treatment as covered bonds from other EU jurisdictions. However, certain assets which are excluded from the CRR – such as loans to UK housing associations – are technically permitted in the cover pool under the Regulations, and so it is possible that in future programmes could be structured which do not qualify for the preferential risk weightings.

At the time of writing there are 14 regulated covered bond issuers in the United Kingdom: Bank of Scotland Plc (BOS); Barclays Bank Plc (BACR); Clydesdale Bank Plc (CLYDES); Co-operative Bank plc (COOP); Coventry Building Society (COVBS); Leeds Building Society (LEED); Lloyds Banking Group (LLOYDS), Nationwide Building Society (NWIDE); National Westminster Bank plc (RBS); Santander UK (SANUK); Skipton Building Society (SKIPTN); TSB (TSBLN); Virgin Money plc (VIRGMN); and Yorkshire Building Society (YBS).[4]

4 http://www.fca.org.uk/firms/regulated-covered-bonds/register.

> FIGURE 1: OVERVIEW – REGULATED UK COVERED BOND PROGRAMMES

	BACR	BOS	CLYDES	COOP	COVBS	LEEDS	LLOYDS	NWIDE	NAT-WEST	SANUK	SKIP-TON	TSB	V MONEY	YBS
Programme volume (bn)	€ 35	€ 60	€ 10	€ 4	€ 7	€ 7	€ 60	€ 45	€ 25	€ 35	€ 7.5	£5.0	€ 7.0	€ 7.5
Rating (M/F/S)	Aaa / AAA / AAA	Aaa / AAA / AAA	Aaa / AAA / nr	A+/ Baal	Aaa / AAA / nr	Aaa / AAA / nr	Aaa / AAA / nr	Aaa / AAA / AAA	Aaa / AAA / nr	Aaa / AAA / AAA	Aaa/ AAA	Aaa / nr / nr	Aaa / AAA	Aaa / AAA / nr
LTV cap	75%	60%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
House price index	Halifax	Halifax	Nation-wide	Halifax	Nation-wide	Halifax	Halifax	Nation-wide	Halifax	Halifax	Halifax	Halifax	Halifax	Avg. of Halifax & Nation-wide
Maximum asset percentage	83.0%	86.7%	86.2%	77.5%	90.0%	89.5%	89.0%	93.0%	90.0%	89.3%	92.5%	89.0%	92.5%	88.0%
Minimum OC*	20.5%	15.3%	16.0%	29.0%	11.1%	11.7%	12.3%	7.5%	11.1%	12.0%	8.1%	12.3%	8.1%	13.6%
Current asset percentage	83.0%	86.7%	86.2%	77.5%	87.0%	83.0%	89.0%	90.0%	90.0%	89.3%	90.0%	89.0%	84.4%	88.0%
Current OC	26.5%	31.9%	24.6%	30.7%	70.2%	55.5%	15.3%	26.5%	26.6%	19.1%	24.5%	25.0%	53.2%	24.7%
Credit for loans in arrears (>3 months)	LTV<75: 40% LTV>75: 25%	No credit	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	<3M: 75%, >3M: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%	LTV<75: 40% LTV>75: 25%
Can issue hard bullets? **	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	Yes	No	No
Asset monitor	PWC	KPMG	Deloitte	PWC	Deloitte	Deloitte	PWC	PWC	Deloitte	Deloitte	Deloitte	PWC	KPMG	Deloitte

Source: Investor reports, FCA Register.

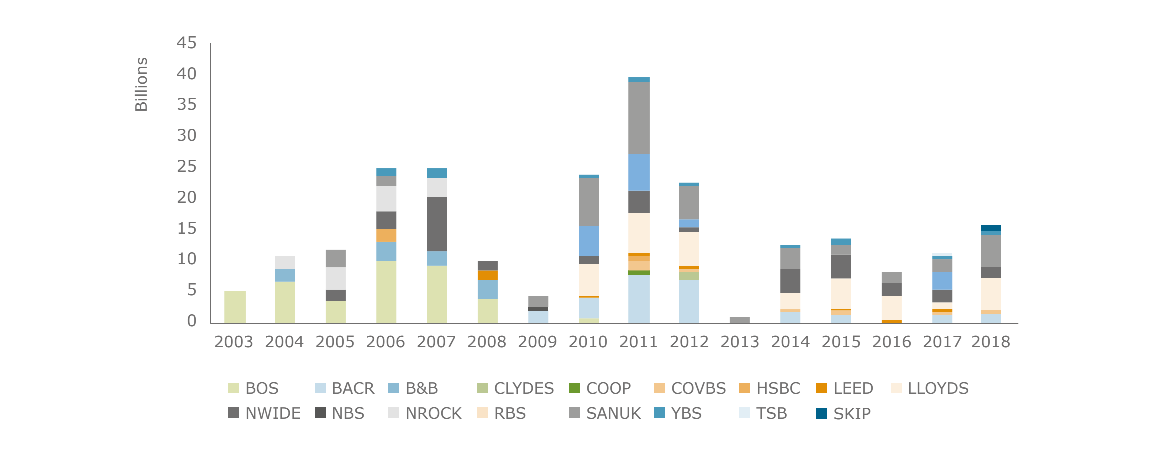
* OC = Overcollateralisation; minimum OC calculated as 1/maximum asset percentage.
** Hard-bullets possible only if pre-maturity test is in place and passed / soft-bullets issued with 12-months extension.

X. ADDITIONAL INFORMATION

The current outstanding volume of regulated, publicly placed fixed and floating rate benchmark covered bonds and respective taps (benchmark covered bonds hereafter) amounts to EUR 84.8 bn (all amounts in EUR bn equivalent). Total new issuance in 2018 amounted to EUR 15.0 bn with redemptions totalling EU R8.6 bn. Redemptions decreased 54% year on year whilst gross supply was 33% higher than 2017 issuance levels, with 2016-2017 seeing reduced activity following the inception of the Bank of England's Term Funding Scheme.

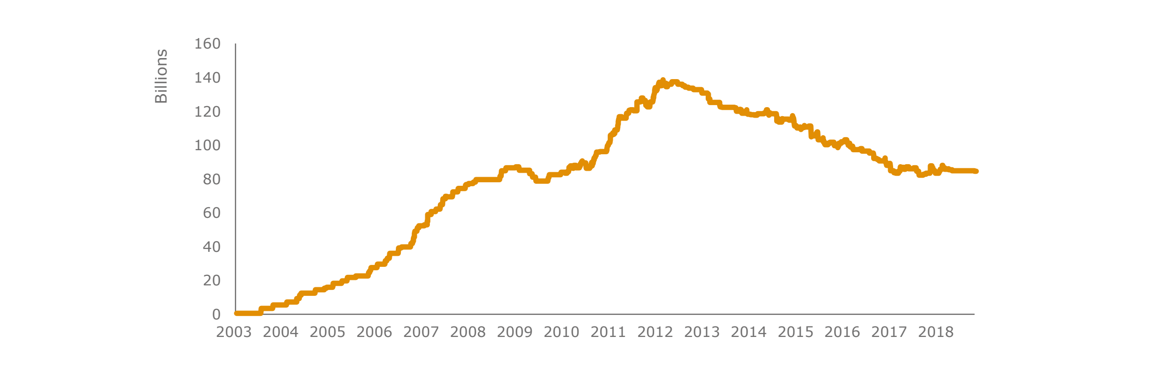
2016-2018 observed a steady positive trajectory in new issuance levels. By the end of 2018, the market registered a positive net supply of EUR 6.4 bn, largely affected by the modest levels of redemptions and partly as a consequence of reduced funding levels in previous years due to the BoE funding schemes.

> Figure 2: Annual supply of UK benchmark covered bonds by issuer (by end Dec 2018)



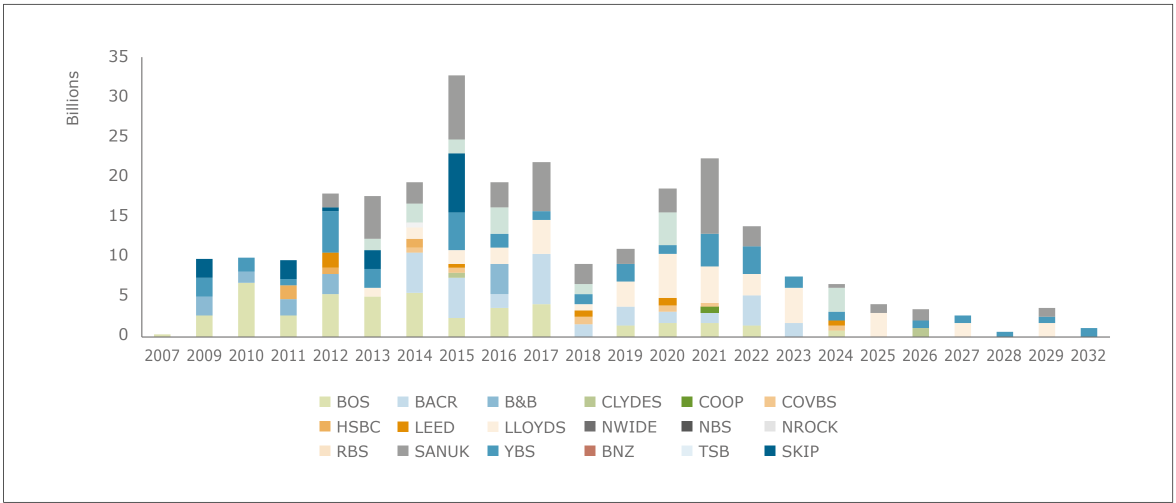
Source: Dealogic

> Figure 3: Development of outstanding volumes (benchmark covered bonds)



Source: Dealogic

> FIGURE 4: ANNUAL REDEMPTION OF UK BENCHMARK COVERED BONDS BY ISSUER

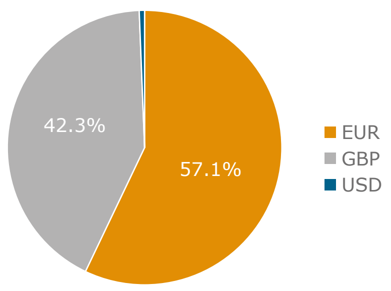


Source: Dealogic

As at 2018 year end, 57% of all UK benchmark covered bonds were denominated in EUR, with GBP making up the majority of the balance at 42% and USD representing only 1% of market share from a single issuance in November 2018. The amount of the market represented by GBP issuance has been steadily growing over recent years as an increasingly deep and efficient wholesale funding source for most issuers. GBP transactions issued since 2014 are almost exclusively 3-5 year floating rate bonds, with only one issuance in GBP fixed rate format. In EUR, issuances over the same period were solely fixed rate, with the vast majority in the 5-10 year tenor.

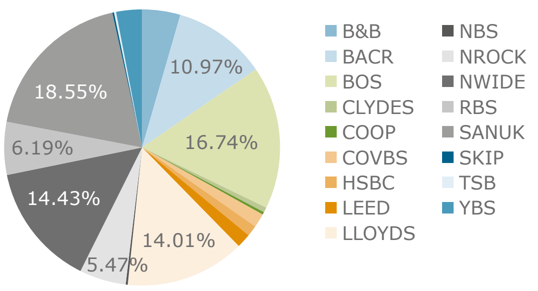
2018 also saw a significant shift in GBP issuance benchmark with compounded daily SONIA becoming the format of choice following the Lloyds 3yr transaction in September 2018. Since then further SONIA based transactions have followed from Santander UK, Coventry, Yorkshire Building Society in 2018 and so far in 2019 from Nationwide, Lloyds, Santander UK, TSB Bank, National Westminster Bank, Skipton, Virgin Money, Leeds and Barclays.

> FIGURE 5: OUTSTANDING BENCHMARK ISSUANCES BY CURRENCY, DEC 2018



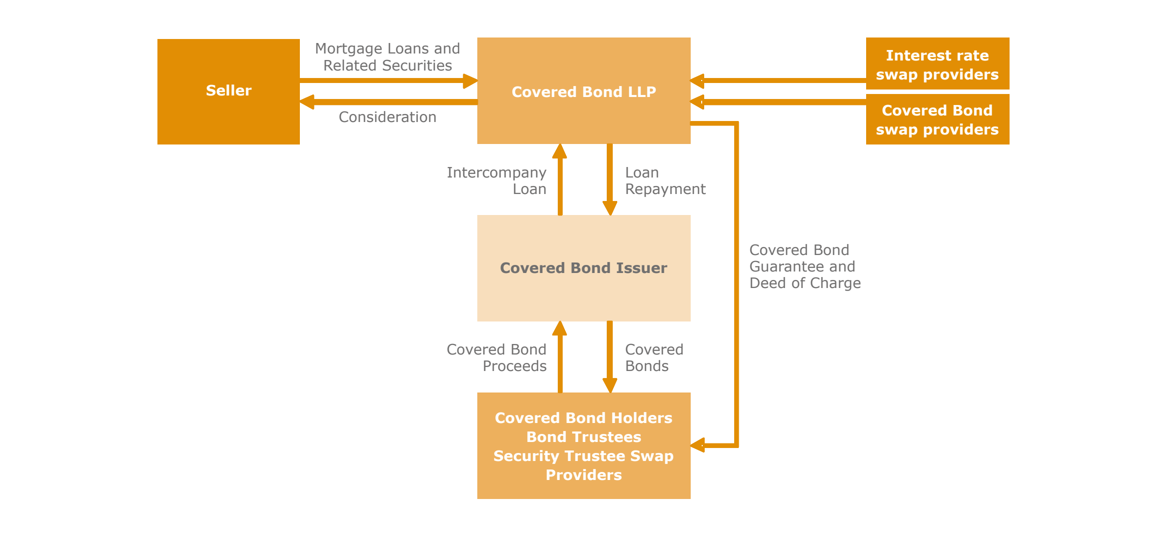
Source: Dealogic

> FIGURE 6: OUTSTANDING BENCHMARK ISSUANCES BY ISSUER, DEC 2018



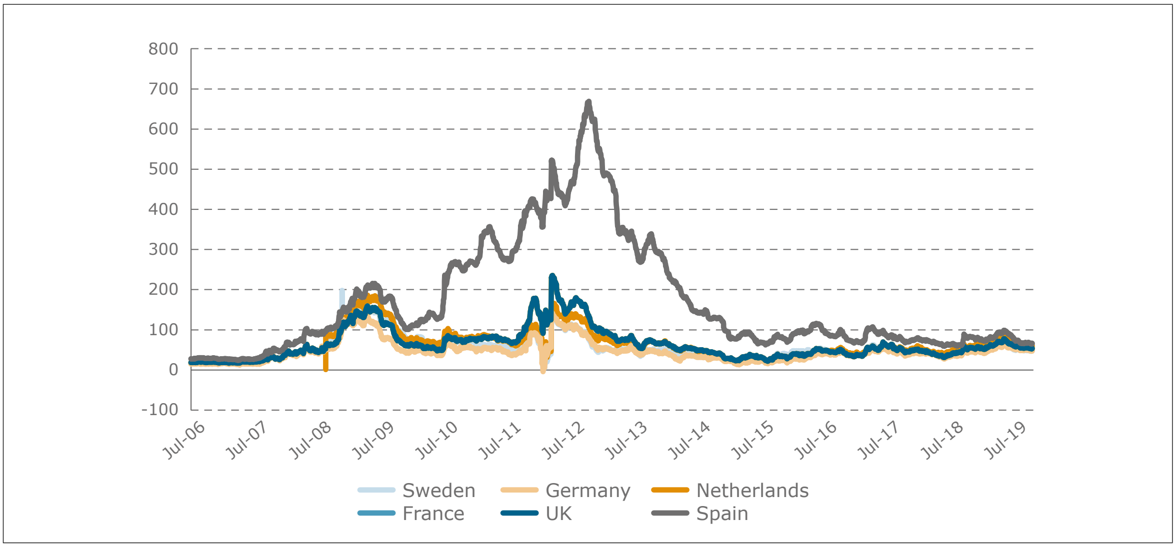
Source: Dealogic

> Figure 7: Generic UK covered bond programme structure



Source: Programme Prospectuses

> Figure 8: Spread evolution, 2006-Dec 2018 (IBOXX EUR covered index, BPS)



Source: iBoxx

Issuers: There are 12 regulated issuers each with one regulated mortgage programme (some regulated issuers also have unregulated programmes). For more details, please refer to the FCA's website: http://www.fca.org.uk/firms/systems-reporting/register/use/other-registers/rcb-register.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/52/Regulated_Covered_Bonds_-_RCB
https://www.ecbc.eu/framework/104/Unregulated_Covered_Bonds

Covered Bond Label : National Westminster Bank Plc (1 pool), Clydesdale Bank PLC (1 pool), Coventry Building Society (1 pool), Santander UK plc (1 pool), Lloyds Bank plc (1 pool), Nationwide Building Society (1 pool), Yorkshire Building Society (1 pool).[5]

5 https://coveredbondlabel.com/issuers/issuers-directory/.

3.42 UNITED STATES

By Steffen Dahmer, J.P. Morgan, Chairman of the ECBC Market Related Issues Working Group

To date, no covered bond legislation has been passed in the US despite several attempts in the post-crisis period. Moreover, the previously issued structured covered bonds by Bank of America and Washington Mutual (acquired by J.P. Morgan) have now matured and there are currently no outstanding US covered bonds. The Federal Deposit Insurance Corporation (FDIC) published a Covered Bond Policy Statement back in 2008, which was supplemented by the US Treasury's Best Practices for Residential Covered Bonds. However, the covered bond market never took off on that basis, notably due to possible repudiation by the FDIC.

The last two legislation attempts, the United States Covered Bond Act in 2011 and the Protecting American Taxpayers and Homeowners (PATH) Act in 2013, aimed to address this concern together with other details but no proposal has made it through the full legislative process. Within PATH, covered bonds were discussed as a consequence of Government Sponsored Enterprises (GSEs) reform, but as a secondary priority.

In the following years, covered bonds were again mentioned twice by legislators, alluding to the possibility of US covered bond legislation in the future. First, a speech on 26 June 2014 by Jack Lew, then the US Treasury secretary, suggested possible new avenues where covered bonds could have a role to play alongside the GSEs. Second, the oversight plan of the Committee on Financial Services for the 114th Congress, which commenced in January 2015, mentioned explicitly the examination of covered bonds. Since that time, however, little progress related to the development of a US covered bond market has materialised.

We note that the topic of large scale GSE reform has recently re-emerged on the political agenda: first, US Senator Mike Crapo published a Housing Reform Outline in February 2019, which was the subject of a two-part hearing by the United States Senate Committee on Banking, Housing, and Urban Affairs in late March 2019. Additionally, the White House issued a Presidential *Memorandum on Federal Housing Finance Reform* at the end of March 2019 that instructed the Secretary of the Treasury to develop a Treasury Housing Reform Plan that would, among other objectives, end the GSEs conservatorships and "[increase] competition and participation of the private sector in the mortgage market."

Published in September 2019, Treasury's Housing Reform Plan sets out multiple administrative and legislative proposed reforms to help accomplish these goals, including recapitalising the GSEs with "significant first-loss private capital". Covered bonds were even briefly mentioned in the Plan as one potential alternative "mechanism" to achieve separation of interest rate and credit risk for 30-year fixed-rate mortgage loans – the most prevalent US mortgage product – in a privatised world, citing the integral role that the Danish covered bond market plays in that jurisdiction's mortgage finance system.

Most recently, in May 2020 FHFA Director Mark Calabria issued a fresh proposal for a GSE Capital Rule, which stipulates that the GSEs must increase their regulatory capital holdings (collectively to ~$234bn, or 3.85%, as at 30 September 2019), which could possibly pave the way for an eventual Initial Public Offering. However, while steps are being taken towards the future privatisation of the GSEs, we believe that there is still significant uncertainty around the ultimate outcome – particularly in light of the upcoming US election in November 2020. Thus, we expect that further discussions related to the establishment of a US covered bond legislation are unlikely to materialise at the present time.

I. WHAT IS CURRENTLY IN FORCE

The FDIC's Covered Bond Policy Statement

The FDIC Covered Bond Policy Statement, effective from 28 July 2008, aimed to clarify the treatment of covered bonds in a conservatorship or receivership. Under the Federal Deposit Insurance Act (FDIA), any liquidation of collateral of an Insured Depositary Institution (IDI) placed into conservatorship or receivership requires the consent of the FDIC during the initial 45 days or 90 days after its appointment, respectively. Under such conditions, covered bond issuers would need to hold extra liquidity to prevent any default during that time if the FDIC as a conservator or receiver were to fail to make payment or provide access to the pledged collateral. Conscious that this would impair the efficiency of covered bonds, the FDIC decided to grant consent for expedited access to pledged covered bond collateral for covered bonds meeting specific criteria.

Eligible covered bonds must be authorised by the IDI's primary federal regulator and cannot exceed 4% of total liabilities. They consist of non-deposit, recourse debt obligations of an IDI with maturity between one year and 30 years secured by eligible mortgages or AAA-rated mortgage-backed securities secured by eligible mortgages, if no more than 10% of the cover assets. Substitute assets may be included (namely US Treasury and agency bonds) as need be for prudent management of the cover pool. Eligible mortgages are defined as first-lien mortgages on one-to-four family residential properties underwritten at the fully indexed rate, relying on documented income and complying with the existing supervisory origination guidance. Issuers should also disclose LTVs for transparency purposes.

The FDIC consents include the following events: (1) if at any time after appointment the conservator or receiver is in default and remains so after actual delivery of a written request to the FDIC for 10 business days, the covered bond holders can exercise their contractual rights including the liquidation of the cover assets; (2) if the FDIC as a conservator or receiver of an IDI provides a written notice of repudiation of a contract to covered bond holders and the FDIC does not pay the damages due by reason of such repudiation within 10 business days after the effective date of the notice, covered bond holders can exercise their contractual rights including the liquidation of cover assets. The liability of a conservator or receiver in such circumstances shall be limited to the par value of the covered bond issued plus interest accrued following its appointment. The statement also highlights that these consents do not waive, limit or affect the rights or powers of the FDIC.

The US Treasury's Best Practices

The Treasury Best Practices issued in July 2008 supplement the FDIC's covered bond policy statement. Their purpose was to support the growth of a transparent and homogeneous covered bond market in the absence of dedicated US legislation. While targeting high-quality residential mortgages to safeguard market liquidity and stability, the US Treasury did not exclude at the time expansion of the covered bond market to other asset classes. As emphasised by the US Treasury, these best practices do not provide or imply any government guarantee but serve only as a template with the following key features:

> **Issuer:** can be (1) an IDI and/or a wholly owned subsidiary of this IDI (the so-called "direct issuance structure") or (2) a newly created bankruptcy SPV ("SPV structure"). Issuance authorisation must be provided by the IDI's primary federal regulator. Only well-capitalised IDIs may issue covered bonds.

> **Cover assets:** are owned by the IDI and remain on balance sheet, but must be clearly identified and provide a first priority claim to covered bond holders. The issuer must enter into a Specified Investment contract with one or more financially sound counterparties which, in case of issuer default or FDIC repudiation, will continue to pay interest and/or principal accordingly as long as proceeds from cover assets at least equal the par value of covered bonds.

> **Covered bond terms:** must be between one and 30 years; issuance may be in any currency as long as currency risks are hedged; bonds can be fixed or floating. Interest rate swaps may be entered for hedging purposes with financially sound counterparties, which must be disclosed to investors. SEC registration is possible but not a requirement.

> **Eligible assets:** must be performing first-lien residential mortgages on one-to-four family residential properties with 80% maximum LTVs. Underwriting must be at the fully indexed rate, with documented income and in line with the existing supervisory origination guidance. Any loan that has been non-per-

forming for more than 60 days should be replaced. A single Metro Statistical Area must be a maximum 20% of the cover pool.

> **Overcollateralisation (OC):** must be at least 5% of outstanding covered bonds at all times. When calculating the cover pool value, loans with a LTV exceeding 80% are still eligible but up to the 80% LTV limit only. LTVs must be indexed on a quarterly basis using a nationally recognised, regional housing price index or other comparable measurement.

> **Issuance limit:** is capped at 4% of the IDI's liabilities after issuance.

> **Asset Coverage Test (ACT):** must be performed on a monthly basis by an independent Asset Monitor to safeguard the quality and adequacy of the cover pool. Results must be made public. The asset monitor must also periodically check the accuracy of the ACT. Any ACT breach must be remedied within one month. If not after one month, the Trustee may terminate the program and return principal and accrued interest to covered bond investors. During an ACT breach, no covered bond can be issued.

> **Disclosure:** must be monthly. If substitute assets account for more than 10% of the cover pool within any month (or 20% within any quarter), the issuer must provide updated information on cover assets to investors. Any material information on the IDI's or SPV's financial profile or on any other relevant area must also be made public.

> **Independent trustee:** must be designated by the issuer to represent the interests of covered bond investors and enforce their rights over the cover pool in case of issuer insolvency. All covered bond holders backed by a common cover pool rank pari-passu.

> **Insolvency procedures:** the FDIC has three options at its disposal: (1) covered bonds are repaid according to initial terms; (2) covered bonds are paid off in cash, up to the value of the pledged collateral; (3) liquidation of the pledged collateral is permitted to pay off the covered bonds. Options (2) and (3) occur in case of default or FDIC repudiation as mentioned above. In such cases, covered bond holders will recover up to the value of the collateral. Any collateral excess must be returned to the FDIC, while covered bond holders rank pari-passu with unsecured debt holders for the amount due in the event of a shortfall.

II. TWO KEY LEGISLATION ATTEMPTS SO FAR

United States Covered Bond Act

The 112th Congress saw an active push for the establishment of covered bond legislation in the US during 2011. The United States Covered Bond Act of 2011 was the most concerted attempt yet in that respect, although it never completed the full legislative process. For legislation to become law, identical text needs to be approved by both the House of Representatives (HR) and the Senate, and the final legislative text then signed by the President. This was not the case as the Bill approved at the HR ("H.R. 940") contained some differences from that introduced at the Senate ("S. 1835") despite their similarities. These were as follows: an expansion of the definition of eligible issuers; for issuers that are not subject to the jurisdiction of a federal banking agency, the covered bond regulator would be the Board of Governors of the Federal Reserve System rather than the Secretary of the Treasury; a right afforded to the respective covered bond regulator and a majority of covered bond holders to replace the independent asset monitor; the omission of tax provisions. Furthermore, the start of the 113th Congress on 3 January 2013 meant that it needed to be re-introduced.

The US Covered Bond Act, whether in its "H.R. 940" or "S. 1835" format, contained major differences from the FDIC and US Treasury's foundations, especially with respect to the following points:

> **Covered bond regulators:** must be the Federal banking agency where appropriate, otherwise the Board of Governors of the Federal Reserve System ("S.1835") or the Secretary of the Treasury ("H.R. 940").

> **Eligible assets:** consist of any first-lien residential mortgage loan secured by a one-to-four family residential property but also (1) any residential mortgage loan insured or guaranteed e.g., under the National Housing Act; (2) commercial mortgage loans (including multi-family); (3) public sector assets – namely any bond or loan from or insured/guaranteed by a State, municipality or other governmental authority; (4) any auto loan or lease; (5) any student loan (guaranteed or unguaranteed); (6) any extension of credit to a person under an open-end credit plan; (7) any loan made or guaranteed by a small business administration; (8) any asset designated by the Secretary, by rule and in consultation with covered bond regulators.

> **Eligible issuers:** include any FDIC depository institution (or subsidiary), bank or savings and loan holding companies (or subsidiary) but also registered nonbank financial companies such as any intermediate holding company. "S.1835" widens eligible issuers to brokers or dealers and supervised insurers as well.

> **Substitute assets:** are limited to 20% of cover assets and may be cash, direct obligations of the US State or GSE of the highest credit quality.

> **Issuance limit:** must be established upon the soundness of the underlying issuer while the maximum amount of covered bond to be issued must be defined as a percentage of the issuer's total assets (with a possible review of this cap, whether up or down, on a quarterly basis).

> **Overcollateralisation:** must meet the minimum defined by the Secretary for each asset class but no specific amount is mentioned. Cover pool must be single asset only.

> **Insolvency procedures:** gives specific powers to the FDIC which, if appointed as a conservator or receiver prior to a default event, shall have an exclusive right during the one-year period beginning on the date of the appointment to transfer any cover pool owned by the issuer in its entirety, together with all covered bonds and related obligations. During that year, the FDIC shall ensure the full and timely payment of covered bond holders. In case of default prior to conservatorship or receivership, a separate estate shall be created for each affected covered bond programme which comprises all related cover assets and covered bonds. This estate is fully liable for covered and other secured obligations only. In case of collateral insufficiency, covered bond holders retain a residential claim against the issuer.

The PATH Act

In 2013, political interest in covered bond legislation emerged again as part of broader reform initiatives addressed in the Protecting American Taxpayers and Homeowners (PATH) Act. PATH aimed notably to reform the GSEs in order to prevent any future liability to taxpayers and increase mortgage competition, enhance transparency and maximise consumer choices. Details related to covered bonds in the PATH Act were similar to the US Covered Bond Act of 2011, with the Treasury being proposed as a regulator instead of the Fed. However, this bill, a Republican initiative, lacked bipartisan support unlike the previous one, notably as it foresaw the wind-down of the GSEs, and was ultimately unsuccessful.

III. WHERE DO WE STAND?

Covered bonds were mentioned twice by legislators since both the Covered Bond Act of 2011 and PATH. First, a speech made in the summer 2014 by then US Treasury secretary, Jack Lew, revived hopes of US covered bond legislation as the US government was looking for private solutions to support mortgage lending. In a survey published by the US Treasury for market feedback, the emphasis was on residential mortgage-backed private label securities (PLS) and thus not directly targeted at covered bonds. However, they were seen as complementary with a new attempt at covered bond legislation possibly emerging from the political debate.

Second, the oversight plan of the Committee on Financial Services for the 114th Congress, which was released in January 2015, mentioned covered bonds. As stated in the document, "*The Committee will examine the potential for covered bonds to increase mortgage and broader asset class financing, improve underwriting* *standards, and strengthen U.S. financial institutions."* However, since this time, limited progress has been made regarding any further attempts to institute a covered bond framework in the US.

Though the complex topic of GSE reform has recently re-emerged as a political priority, particularly following the release of a Presidential *Memorandum on Federal Housing Finance Reform* by the White House in late March 2019 and subsequent Housing Reform Plan from the US Department of the Treasury in September 2019, we believe that any substantive reform to US housing finance will take time. Thus, while covered bonds might eventually have a role to play in the jurisdiction, we believe that more concrete progress around GSE reform remains a significant, uncertain, and lengthy hurdle to the establishment of a covered bond market in the US.

IV. RISK-WEIGHTING & COMPLIANCE WITH EUROPEAN LEGISLATION

US covered bonds are neither UCITS 52(4)-compliant nor CRR-compliant given the absence of EU membership.[1] Therefore, they do not benefit from preferred risk-weighting for regulatory capital purposes. Under the Standardised Approach, they are treated similarly to senior unsecured bank debt. That said, if denominated in €, US covered bonds are eligible for European Central Bank repo operations, conditional on an investment grade rating. Specific haircuts are applied depending on the rating and characteristics of the covered bond. However, since there are no outstanding US covered bonds, this is not currently applicable.

Issuers: JP Morgan, Bank of America Corporation.

ECBC Covered Bond Comparative Database: https://www.ecbc.eu/framework/57/US_Covered_Bonds

1 Please click on the following link for further information on the UCITS Directive and the Capital Requirements Regulation (CRR): https://hypo.org/ecbc/covered-bonds/.

CHAPTER 4 - RATING AGENCIES & METHODOLOGY

4.1 CREDIT RATING AGENCY APPROACHES: INTRODUCTION

By Elena Bortolotti, Barclays, Chairwoman of the ECBC Rating Agency Approaches Working Group

Looking back over the past 12 months, from the perspective of the Rating Agency Approaches (RAA) Working Group, it has turned out to be a very interesting year. This has been driven mainly by the Covid-19 pandemic, which has drawn market participants' focus to the potential actions that the Rating Agencies may take on sovereign ratings, bank ratings, as well as covered bond ratings. In the few paragraphs that follow, I would like to give you a brief overview of some of the key themes that the RAA Working Group has focused on.

On 27 April 2020, the RAA Working Group organised an e-meeting with DBRS, Fitch, Moody's, Scope and Standard & Poor's to discuss their views on the impact of the pandemic on covered bond ratings. The Rating Agencies all recognised that the impact of Covid-19 on covered bonds is multi-faceted, and outlined the key considerations that may affect the rating and/or overcollateralisation levels of covered bond programmes. The three main pressure points identified were:

1) **Sovereign Ratings**: Covered bond ratings are vulnerable to sovereign downgrades and the risk increases as the Rating Agencies look to lower rated sovereigns, partly because a downgrade of the sovereign may impact the country ceiling and hence the maximum achievable rating by a covered bond from an issuer in that jurisdiction.

2) **Banking System**: The strength of the banking system in different jurisdictions is another driver in the Rating Agencies' covered bond rating methodology. The pronounced negative effects of the Covid-19 disruption on economic activity and operating conditions worldwide have prompted a wide re-assessment of outlooks for banking systems, which could lead to downgrades which may potentially impact covered bond ratings.

3) **Collateral Credit Quality**: As the cover pool represents the second source of recourse for covered bondholders, a deterioration of the cover pool quality can result in a rating action on the covered bonds. One of the immediate impacts of Covid-19 on collateral relates to payment moratoria. In the short term, these moratoria may reduce the incoming cash flows of cover pools and the issuer would cover potential mismatches if they arose. In the long term, the impact of the pandemic will depend on the severity of the crisis, which may translate into higher delinquencies and higher defaults.

Overall, it is fair to say that the Rating Agencies expect a limited short-term impact on covered bond ratings from Covid-19 payment holidays. However, the magnitude and length of the pandemic remain uncertain and may well impact in the short to medium term issuer quality, asset quality and sovereign credit quality, which could ultimately affect covered bond ratings.

With regards to covered bond rating methodologies, none of the Rating Agencies, other than Fitch, introduced material changes to their covered bond rating methodology since the last edition of the ECBC Covered Bond Fact Book. Below is a brief summary of some of the changes introduced by Fitch:

> Fitch revised its covered bond rating methodology by refining its approach to calculating the Refinancing Spread Level Assumptions (RSL), which aim to capture stresses in asset sales to meet liquidity needs of a programme upon enforcement/recourse to the cover pool. Furthermore, Fitch changed some terms and concepts previously used: "IDR uplift" was replaced with "resolution uplift"; IDR plus the resolution uplift is referred to as the "resolution reference point"; "timely payment rating level" substitutes "tested rating on a PD basis".

In the pages that follow this introduction, you can find the Rating Agencies' covered bond methodologies. A summary of the key features of the Rating Agencies' methodologies can be found in Figure 1 below.

Last but not least, the RAA Working Group continues to closely monitor how member states intend to transpose the Covered Bond Harmonisation package. The Rating Agencies' views on the final Directive and Regulation remain positive. In particular, the introduction of minimum standards will likely prompt the development of covered bond markets and the improvement of legal frameworks in certain countries. Among the most credit positive features cited is the introduction of a mandatory liquidity buffer covering 180 days of interest and principal outflows as well as a required overcollateralisation limit. It remains to be seen how some structural features, such as maturity extension triggers and liquidity buffer calculation, will be transposed but this will be a topic of discussion for the coming year.

In conclusion, I would like to take this opportunity to again thank all members of the ECBC RAA Working Group for their input and participation. Furthermore, I would like to thank Luca Bertalot and his team for co-ordinating, organising and keeping us up to date on all covered bonds related topics.

> Figure 1: Covered Bonds Rating Methodologies

Building Block Towards Rating	Fitch	Moody's	S&P	DBRS	Scope
Minimum Rating (Starting Point):	IDR (Issuer Default Rating)	Counterparty Risk (CR) Assessment	ICR (Issuer Credit Rating)	CB AP (Covered Bond Attachment Point) = Critical Obligations Rating (COR); or Senior Unsecured Rating (SUR) + uplift	Issuer Rating (IR)
Additional Notches via: CB Law	–	–	–	–	–
EU's BRRD or equivalent	uplift 0-2 notches (resolution uplift) = Resolution Reference Point	uplift 1 notch	uplift 1-2 notches = RRL (Rating Reference Level)	–	Taken into account in Recovery Regime
Segregation/ Bankruptcy Remote **Systemic Importance/ Jurisdictional Support**	Payment Continuity Uplift (PCU) (maximum 8 notches) Recovery Uplift (up to 2 notches; 3 NIG)	TPI (Timely Payment Indicator) (max +9 notches if supported by cover pool analysis)	RRL + max 3 notches (systemic importance; legal framework; sovereign credit capacity)	LSF (Legal and Structuring Framework) (max +6 notches)	Legal Framework (+2 notches) Recovery Regime (+4 notches)
Cover Pool/ Asset Quality	Assessed as part of OC stress testing	Assessed to determine uplift over CR assessment +1	uplift of 1-4 notches +2 for credit risk; +2 for refinancing costs	CPCA (Cover Pool Credit Assessment) +0-2 notches for high recovery prospects	Cover Pool Analysis +0-3 notches
Maximal Rating Possible above Starting point: *(achievable with CPT Delinkage or appropriate liquidity mitigants)*	2+8+2 (12 notches possible for CPT)	Capped at country ceiling	7+2 notches	6+2 notches	6+3 notches (CPT assessed case by case)
Capped by Country Ceiling	✓	✓	✓	NO (considers country, redenomination and capital control risks in accordance with Global Sovereign rating methodology)	NO (Macroeconomic factors & credit quality main factors)
OC Commitment/ Counterparty risk/ Hedging	Level of OC relied upon (legal, contractual, used in ACT, lowest OC in last 12 months for issuers rated at least 'F2') is compared with the breakeven OC for a given rating. Counterparty risk mitigation considered	Uncommitted OC: gives credit where issuer highly rated, plus certain other criteria Committed OC: gives credit for contractually committed OC above min level required by legislation	*uncommitted OC:* max rating -1 notch *counterparty or country risk* might limit max rating if adequately mitigated/hedged	gives credit for contractually *committed OC* above min level required by legislation and to uncommitted OC deemed sustainable	*IR ≥BBB:* Available OC; *<BBB: publicly communicated OC; ≤BB: contractual OC commitment*

Source: DBRS, Fitch, Moody's, Standard & Poor's and Scope

4.2 DBRS MORNINGSTAR COVERED BOND RATING METHODOLOGY

By Ketan Thaker and Christian Aufsatz, DBRS Morningstar

INTRODUCTION

DBRS Morningstar "Rating and Monitoring Covered Bonds" global methodology involves the analysis of four building blocks:

1. Covered Bonds Attachment Point (CBAP);
2. Legal and Structuring Framework (LSF) Assessment;
3. Cover Pool Credit Assessment (CPCA); and
4. Credit for high recovery prospects provided by the cover pool (CP).

The assignment of ratings to covered bonds (CB) transactions involves determining the LSF-implied Likelihood (LSF-L) for the programme based on the CBAP, LSF assessment and CPCA. Once the LSF-L is determined, ratings are assigned by incorporating credit for the CP's ability to provide support following an assumed default of the CBs.

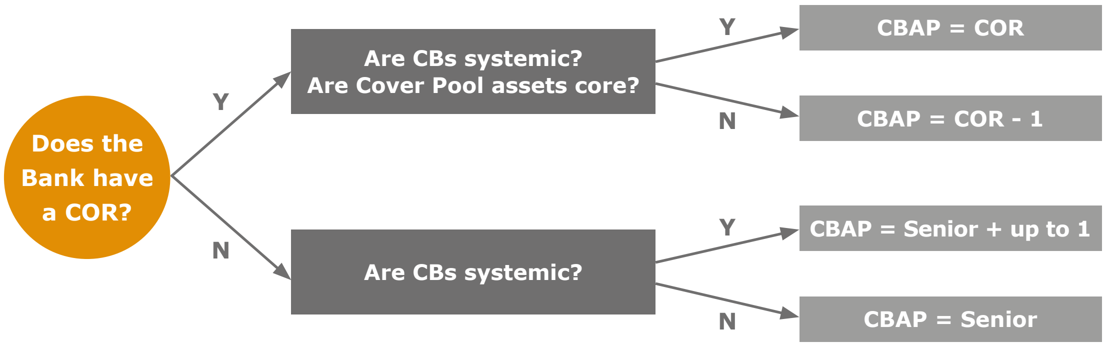
THE FOUR BUILDING BLOCKS

1. Covered Bonds Attachment Point

CBs have dual recourse. The payment obligation initially falls on the debtor of first recourse, called the Reference Entity (RE); failing that, the obligation falls on the CP.

The CBAP designates the RE's credit strength (i.e., the probability that the RE—not the CP—will fulfil the payment obligation). The CBAP comprises a reference rating and, when applicable, a notching uplift schedule. There are three scenarios under which DBRS Morningstar determines the CBAP:

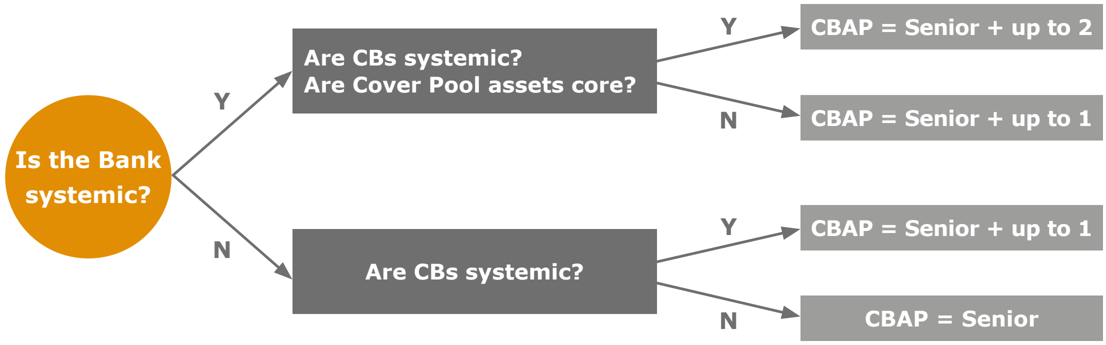
A. For all European CB programmes where the RE is subject to the Bank Recovery and Resolution Directive (BRRD), DBRS Morningstar determines the CBAP as follows:



The Critical Obligations Rating (COR) addresses the default risk of particular obligations/exposures at banks that are more likely to be excluded from bail-in and remain in a bank in the event of the resolution of a troubled bank than other senior unsecured obligations. In cases where the bail-in tool is applied and the CB programme in its entirety remains with the going concern part of the RE in resolution, DBRS Morningstar expects that the COR will continue to be the base for the CBAP.

When the RE does not have a COR, and in cases where the bail-in tool is applied and the CB programme in its entirety remains with the going concern part of the RE in resolution, DBRS Morningstar expects that the CBAP would decouple from the RE-SUR. At that point, the CBAP is set at a level that DBRS Morningstar considers consistent with the ability of the new RE to continue to be the source of payments for the CBs.

B. For all European CB programmes where the RE is subject to a resolution regime that DBRS Morningstar deems equivalent to the BRRD, DBRS Morningstar determines the CBAP as follows:



C. For Canadian CB programmes, DBRS Morningstar sets the CBAP at the level of the Long-Term Senior Debt rating of the RE (for the REs that are subject to the Canadian Bank Recapitalization Regime, the Long-Term Senior Debt rating tracks the non bail-inable senior debt).

D. For CB programmes where the RE is not subject to the BRRD nor to a regime that DBRS Morningstar deems equivalent, DBRS Morningstar equalises the CBAP with the RE-SUR.

2. Legal and Structuring Framework Assessment

The LSF assessment is programme-specific. It limits the number of notches a CB default risk assessment can achieve above the CBAP.

DBRS Morningstar's LSF assessment captures the likelihood that payment obligations under the CB will be efficiently trans-ferred from a troubled bank to a performing bank or the CP, administered by a third party. This assessment takes three areas into consideration:

> Robustness of the CP segregation;

> Accessibility of CP cash flows on a preferential and timely basis, the need and ability to liquidate the CP, including likelihood of systemic support;

> Contingency plans, including the involvement and responsibility of the regulator or the relevant Central Bank to facilitate the transfer, and regulator's support to the CB market.

Cover Pool Segregation

DBRS Morningstar recognises that CB legislation is written to supersede the bankruptcy and insolvency laws within a ju-risdiction. Legislations generally give CB holders privilege over the CP assets, taking preference over claims of any other creditor in the case of issuer insolvency. In the event of an insolvency, legislation typically allows the CP to be segregated from the bankruptcy estate.

DBRS Morningstar expects contractual CB programmes to largely address the issue of segregation. As such, DBRS Morningstar does not expect CP segregation to be a major constraining factor for its ratings. If there were serious doubts about effectiveness of segregation, the dual-recourse principle might be undermined, preventing the application of this methodology. However, DBRS Morningstar expects the issue to be addressed, either by law or the transaction's structural features. Nevertheless, instances where legal frameworks and structures have minor weaknesses in segregation mechanisms that are not effectively mitigated can have a limited impact on DBRS Morningstar's assessment.

Timely Access to Cover Pool Cash Flows

A reasonable expectation that the cover assets will be available to satisfy the claim of the CB holders following a default of the RE is a first step toward gaining comfort that the CB holders will be paid according to the terms of their investment. DBRS Morningstar performs qualitative analyses of the legal framework, structural features, specific characteristics of each CB programme and expectations of systemic support, in order to achieve this comfort.

In general, cover assets amortise over a time horizon beyond the scheduled amortisation of the liabilities. While the RE is able to meet payments on the CBs, the resulting mismatches in the maturity profile are unimportant, as the RE will use its own funding sources to meet maturing liabilities. Upon the failure of the RE, the source of payment switches to the CP. DBRS Morningstar consequently analyses the effective mismatches, as the conditions of the CB may provide for these to be modified conditionally to a default of the RE, and the manner in which they might be bridged.

The qualitative analysis aims at assessing the extent to which the CP composition, the programme's structural features and the legal framework interact to facilitate the CB investors' receipt of timely payments from the CP in a scenario where the RE is assumed to halt payments. This depends on the interaction of the constraints imposed by the programme structure and legal framework on how quickly the payments would need to be redirected to CB holders and how quickly financing sources become available to fund such needs. Other considerations in this analysis include the type of assets that may need to be liquidated and the time it takes to liquidate them; the presence of maturity extensions, prematurity tests or other features that give more time to explore alternative solutions; and how the programme structure foresees the CP detaching from the RE's influence in this timeframe.

Contingency Plans and Supervision

DBRS Morningstar views positively the regulator's involvement and the existence of contingency plans for the smooth transi-tion from the RE to the CP as a source of payments to CB holders. Factors reviewed include but are not limited to the existence of a specific supervisor in charge of the CB programme in the normal course of operations, and the quality and content of the contingency plans in case of an issuer's default.

After reviewing these main factors under the LSF assessment, DBRS Morningstar assigns the CB one of five LSF assess-ments: Very Strong, Strong, Adequate, Average or Modest.

3. Cover Pool Credit Assessment and Overcollateralisation

Once a CBAP and an LSF assessment are assigned to a CB programme, DBRS Morningstar assesses the CP quality to de-termine the LSF-L of the programme. This assessment represents the likelihood that the CBs will be repaid according to their terms, provided there is sufficient overcollateralisation (OC) to which DBRS Morningstar could give credit.

DBRS Morningstar analyses the wind-down of the CP and the repayment of the liabilities according to their conditions. The aim is to determine whether the interest and principal can be paid on time solely from the CP (including any structural enhancement) for a given rating scenario.

The CPCA analysis is similar to the analysis performed for RMBS and SME CLOs transactions. It begins with an estimate of the probability of default (PD) and loss given default for each rating category based on the methodology applicable to the underlying assets, followed by an analysis of the stressed asset cash flows (including interest rates and exchange rates) from the underlying assets and an analysis of the way cash flows are allocated to liabilities based on the transaction documents.

Additionally, the CPCA accounts for the timing of RE discontinuing its payments. This warrants an analysis of the periodic defaults on the underlying collateral versus a lifetime default expectation; assumptions regarding principal amortisation and reinvestment; future interest levels, exchange rates[1] and senior costs; assumptions about collections in case of the RE's default under its obligations; and an estimate of the liquidation value of the underlying collateral in the event of the RE's default or inability to pay. In order to estimate liquidation values, DBRS Morningstar performs a net present value calculation based on projected cash flows generated by the CP and assumed interest rates stresses and market value spreads.

The CPCA is the rating stress scenario that the structure can withstand given the OC to which DBRS Morningstar gives credit.

Due to the very nature of the product, the OC level changes, for instance, as a result of the amount of CBs issued or amortised under the programme, and assets added to or removed from the CP. Generally, the only legal obligation of the issuer or RE is to maintain a level of assets such that the regulatory tests are satisfied, and the minimum level of OC legally or contractually required is maintained.

Therefore, DBRS Morningstar typically gives full credit to thelevel of OC required by the national legislation or the secondary regulation and regulators' guidelines, as well as to the level of OC included in the contractual undertaking of the issuer or RE, provided that non-compliance with such undertakings would cause the RE to be in breach of contract under the program documentation. This point seems to be supported by the BRRD. However, DBRS Morningstar's conclusion might be affected by the BRRD's implementation in the local legislative framework. For levels above those, or where there is no public announcement, DBRS Morningstar determines a sustainable OC level by reference to the minimum-observed OC level during the past 12 months, adjusted by any increase that DBRS Morningstar judges to be persistent. This figure is then reduced by the following scaling factors, which vary by rating:

CBs rating	Scaling factors (x) to observed OC
AAL and above	0.85x
AL to AH	0.90x
BBBL to BBBH	0.93x
Below investment grade	0.95x

Source: DBRS Morningstar

Issuers may publish an announcement for a target OC level (e.g., in the form of a press release, a statement in the investors' report or on the RE website). However, these announcements are not viewed as favourably as an issuer's legal or contractual obligation. Therefore, the analysis will typically apply the above-detailed scaling factors to the publicly announced OC level. However, when DBRS Morningstar holds the view that the announced OC level can be considered persistent based on historically observed levels, the analysis may give full credit to it.

4. Credit for High Recovery Prospects Provided by the Cover Pool

In consideration of the essentially senior secured position of CB holders, DBRS Morningstar may give up to two notches of uplift from the LSF-L if the CP analysis shows that it would provide substantial support following a default of the CBs.

DBRS Morningstar runs a wind-down cash flow simulation aimed at covering the funding cost under a stress scenario in line with the rating. Then, DBRS Morningstar determines the percentage of principal payments received under the CBs versus their nominal amount, and assign a rating with an uplift from the LSF-L according to the following scale:

1 The stresses to account for risk of unhedged currency risk are determined in line with the methodology – Currency Stresses for Global Structured Finance Transaction.

% of principal recovered	Notches uplift
>= 80%	+2
>= 60% but < 80%	+1
< 60%	0

Source: DBRS Morningstar

COVERED BONDS WITH PUBLIC SECTOR EXPOSURES

CBs with public-sector exposures (PSE) deserve, in certain circumstances, a different type of analysis because of the high correlation between public-sector assets and the domicile sovereign. When the CP of PSE is con-centrated in a single domicile sovereign, this materially increases the tail-event risk such that the impact of an assumed default of that sovereign on the credit quality of the PSE pool cannot be sufficiently diversified.

DBRS Morningstar addresses this risk in its CPCA using its PSE tool. The *Modelling Assumptions for Portfolios of Public Sec-tor Exposures* methodology provides further detail on this tool.

For CBs where 20% or more of the CP is composed of public-sector assets in the same sovereign where the RE is located (host sovereign), DBRS Morningstar considers the additional risks separately. The PSE in the host sovereign can increase the likelihood that the creditworthiness of both the debtor of first recourse (the RE) and the CP will deteriorate concurrently, exposing the CB holders to higher risk. DBRS Morningstar considers that, when the host sovereign concentration is material, it can very rarely (if at all) be expected that the CB be rated over three notches above the host sovereign rating. However, it is possible that a higher rating could be achieved by disregarding the as-sets concentrated in the host sovereign. Furthermore, when the RE is an entity whose primary business focuses solely on the region where the assets are located, DBRS Morningstar reflects any additional risks and constraints to the rating.

SOVEREIGN STRESS

A sovereign downgrade may impact factors considered in a CB rating, resulting in ratings changes to the CBs:

1. CBAP: The RE-SUR and the COR (where applicable) consider the operating environment of a banking organisation (including regulatory and supervisory regime). Accordingly, a sovereign downgrade may impact the CBAP by creating a more challenging operational environment. This can lead to downgrades of CB ratings. Moreover, the notching approach of the COR contemplates that the COR can surpass the sovereign rating by a maximum of two notches in certain cases, provided there is no systemic banking crisis, as that would likely put downward pressure on the CBAP.

2. LSF Assessment: The LSF assessment expresses the likelihood of a smooth transition from the issuer or RE to the CP as a source of payments on the CB. A downgrade of the domicile sovereign may affect the LSF assessment associated with a given programme and therefore cause its downgrade. In the case of a CP composed of sovereign exposures, a downgrade of the domicile sovereign may affect the LSF assessment as DBRS Morningstar assesses less favourably exposures to lower-rated sovereigns. In certain circumstances, a downgrade of the host sovereign may also affect the LSF assessment.

3. CP Credit Assessment: A downgrade of the domicile sovereign may cause a deterioration of the CP assets. It can also trigger greater volatility in the financial markets and result in DBRS Morningstar factoring in higher levels of market value spreads into its cash flow analysis. This would in turn increase the pass-OC level for a given rating scenario. DBRS Morningstar may then downgrade the CB even if the level of OC to which DBRS Morningstar can give credit is unchanged, but it is now lower than the new pass-OC level.

4. CP Support: A downgrade of the domicile sovereign may affect the notching granted above the LSF-L.

5. Sovereign Rating: For Public Sector CBs, when 20% or more of the CP consists of PSE concentrated in the host sovereign, a downgrade of the host sovereign may cause the CBs' rating to be downgraded.

DBRS MORNINGSTAR LSF MATRICES

DBRS Morningstar considers the PD of a CB to derive from the joint probability that both the RE and CP become unable to fulfil the transaction's payment obligations, assuming that there is usually a correlation between the two instances. Separately, DBRS Morningstar assumes a non-zero probability that the CB will not receive the full benefit of the cash flows from the CP rapidly enough to avert a CB default. Five LSF categories are assigned so that the probability of not receiving the CP's full benefit increases as the LSF weakens.

Accordingly, DBRS Morningstar has generated five LSF matrices for each of the LSF grades with a fixed assumption of a CB with a five-year weighted-average life (WAL). The output of the DBRS Morningstar matrixes (or the LSF-L) points to the rating level for each one of the CBAP and CP credit assessment levels for a given LSF assessment. The LSF-L doesn't reflect the prospect for high recoveries for the CP following a potential default of the CB, which may provide up to an additional two notches uplift to the LSF-L.

COUNTERPARTY RISK

DBRS Morningstar generally applies the same counterparty criteria to European CBs as stated under *Legal Criteria for European Structured Finance Transactions* (counterparty criteria) and *Derivative Criteria for European Structured Finance Transactions* (derivative criteria). Noticeable differences that reflect the nature of the product are detailed in this methodology.

COVERED BONDS SURVEILLANCE

Once DBRS Morningstar assigns a CB rating, the surveillance process begins and is continued for as long as the rating is maintained, via a periodic review and more frequent monitoring.

In cases where ongoing information is no longer deemed reliable or of sufficient quality, and DBRS Morningstar is unable to properly monitor the transaction, DBRS Morningstar may discontinue the existing rating(s).

RELATED RESEARCH

> "Rating and Monitoring Covered Bonds", April 2020.
https://www.dbrsmorningstar.com/research/360260/rating-and-monitoring-covered-bonds.

> "DBRS's Assessment of Jurisdictions for Which Covered Bonds are Systemically Important", June 2019.
https://www.dbrsmorningstar.com/research/347573/dbrss-assessment-of-jurisdictions-for-which-covered-bonds-are-systemically-important.

> "Rating and Monitoring Covered Bonds Addendum: Market Value Spreads", April 2020.
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> "Derivative Criteria for European Structured Finance Transactions", September 2019.
https://www.dbrsmorningstar.com/research/350907/derivative-criteria-for-european-structured-finance-transactions.

> "Derivative Criteria for Canadian Structured Finance Transactions", Jul 2020.
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> Commentary: "Greek Covered Bonds: Legal and Structuring Framework Review". July 2017.
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> Commentary: "UK Covered Bonds: Legal and Structuring Framework Review". March 2017.
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> Commentary: "French Covered Bonds: Legal and Structuring Framework Review". March 2015.
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> Commentary: "Portuguese Covered Bonds: Legal and Structuring Framework Review". December 2014.
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> Commentary: "Dutch Covered Bonds: Legal and Structuring Framework Review". March 2017.
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> FIGURE 1: ADEQUATE LSF

COVERED BOND ATTACHMENT POINT	COVER POOL CREDIT ASSESSMENT											
	AAA	**AA (high)**	**AA**	**AA (low)**	**A (high)**	**A**	**A (low)**	**BBB (high)**	**BBB**	**BBB (low)**	**BB (high)**	**BB**
AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA (high)	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)
AA	AAA	AAA	AAA	AAA	AAA	AAA	AA (high)	AA	AA	AA	AA	AA
AA (low)	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA	AA	AA (low)	AA (low)	AA (low)	AA (low)
A (high)	AAA	AA (high)	AA (high)	AA (high)	AA	AA	AA	AA (low)	AA (low)	A (high)	A (high)	A (high)
A	AA (high)	AA (high)	AA (high)	AA	AA	AA	AA (low)	AA (low)	AA (low)	A (high)	A	A
A (low)	AA	AA	AA	AA (low)	AA (low)	AA (low)	A (high)	A (high)	A (high)	A	A (low)	A (low)
BBB (high)	AA (low)	AA (low)	A (high)	A (high)	A (high)	A (high)	A	A	A (low)	A (low)	A (low)	BBB (high)
BBB	AA (low)	A (high)	A (high)	A (high)	A	A	A	A (low)	A (low)	A (low)	BBB (high)	BBB (high)
BBB (low)	A (high)	A (high)	A	A	A	A	A (low)	A (low	A (low)	A (low)	BBB (high)	BBB (high)
BB (high)	A (low)	A (low)	A (low)	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)
BB	A (low)	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)	BBB (low)
BB (low)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BB (high)
B (high)	BBB	BBB	BBB	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BB (high)	BB (high)
B	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)
B (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)	BB	BB
CCC (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB	BB	BB (low)	BB (low)
CCC	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB	BB	BB	BB (low)	BB (low)
CCC (low)	BB	BB	BB	BB	BB	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	B (high)	B (high)

Source: DBRS Morningstar

4.3 FITCH RATINGS COVERED BOND RATING METHODOLOGY

By Carmen Muñoz and Hélène Heberlein, Fitch Ratings

INTRODUCTION

This is a summary of Fitch Rating's methodology for assigning and monitoring credit ratings for covered bond obligations globally. The complete Covered Bonds Rating Criteria as well as other related criteria, is available at www.fitchratings.com.

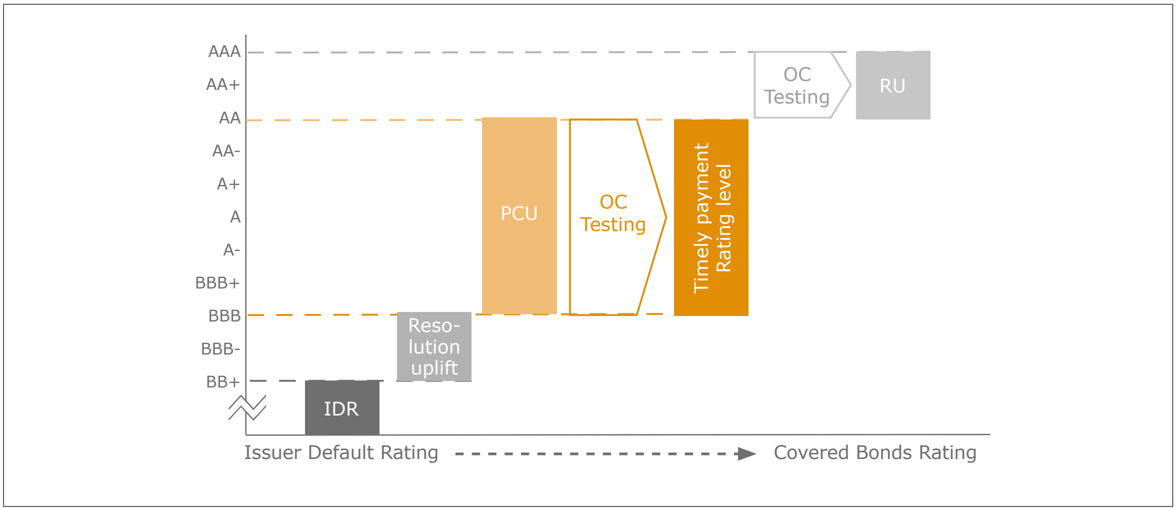
Fitch's Covered Bonds Rating Criteria focuses on the dual recourse nature of covered bonds, with recourse to a financial institution and to a pool of assets that can change over time. Our covered bond ratings address the bonds' probability of default (PD), and following their hypothetical default, recoveries from the cover pool. Covered bonds have a privileged position over an issuer's senior debt in a resolution scenario and, in the event of an issuer default, collateral may allow for ongoing covered bond payments, as well as for recoveries from the cover pool. As such, they can be rated above an issuing entity's Long-Term Issuer Default Rating (IDR), which generally represents the default risk of senior unsecured debt to third-party, non-government creditors.

The main steps to the covered bond rating consist of:

1. **Uplift Assessment**
2. **Overcollateralisation (OC) Assessment**

As illustrated in the next graph, Fitch's covered bond ratings can exceed the Long-Term IDR of an issuing institution by a total number of notches corresponding to the sum of the resolution uplift, the Payment Continuity Uplift (PCU) and the recovery uplift applicable to the programme. Often, not all notches of uplift are used. This may be due to the lower difference between the Long-Term IDR and the highest rating of 'AAA' on the Fitch rating scale, or due to a rating cap, such as an applicable Country Ceiling. This creates a buffer against an issuer downgrade. In addition, the actual covered bond rating may be lower than the maximum achievable if the OC level that Fitch gives credit to in its analysis does not withstand higher stress scenarios.

> Figure 1: Fitch Covered Bond Rating Steps



IDR: Issuer Default Rating; PCU: Payment Continuity Uplift; OC: Overcollateralisation; PD: Probability of Default; RU: Recovery Uplift

Source: Fitch Ratings

Fitch does not always run models when assigning or monitoring covered bonds credit ratings. For example, if an issuer has an IDR of 'AA-', Fitch can assign a covered bond rating of 'AAA' without specific modelling if the programme's characteristics, including maintenance of minimum legal OC, support a resolution uplift of two notches and a recovery uplift of one notch. In this case, the agency will not test cash flows for timely payment nor establish the cover pool's Rating Default Rate and Rating Loss Rate.

Similarly, if there is ample OC buffer above thresholds established in our Covered Bonds Rating Criteria, we may refrain from running the asset and/or the cash flow model. This depends on further conditions, including no material change to the cover pool composition, origination practices, assets and liabilities profile, the issuer rating, the relevant sovereign rating or our applicable criteria assumptions. In these cases, previous results of Fitch's asset and/or cash flows modelling would be carried forward at future rating reviews.

STEP 1: UPLIFT ASSESSMENT

Issuer Default Rating

The institution's Long-Term IDR is the basis for Fitch's covered bond rating analysis, because covered bonds are a full recourse debt instrument. This means that, as long as the issuer is solvent, it will pay covered bond obligations when due pari passu with its senior liabilities, irrespective of the performance of the cover assets. This linkage between the institution's Long-Term IDR and its covered bond rating is also attributable to issuers' capacity to make decisions regarding cover pool composition, asset and liability mismatches, and maintenance of OC.

Resolution Uplift

The resolution uplift of up to two notches applies to programmes from jurisdictions with a bank resolution regime, which includes a bail-in tool for senior liabilities, from which fully collateralised covered bonds or secured debt are exempt. It applies where Fitch believes payments will continue being made without recourse to the cover pool even if the issuer has defaulted on its senior debt. If relevant to our analysis, the risk of undercollateralisation at the point of resolution must be sufficiently low. Fitch analyses the applicable legislative regime and contractual documentation to assess the possible risk of undercollateralisation at the point of an issuer resolution. The IDR plus the resolution uplift determines the resolution reference point.

The degree of resolution uplift depends on the following considerations.

> Figure 2: Level of Resolution Uplift

Resolution uplift	Type of Issuers
Two notches	> Institutions with an IDR not driven by institutional or state supportand their subsidiaries whose IDR is equalised with the parent's. > IDR based on their participation/integration in a mutual support scheme and equalised with group IDR.
One notch	> Institutions with an IDR driven by support and their subsidiaries.
None	> Specialised mortgage or public sector lenders that form part of a broader banking group and are not operationally integrated with the parent. > Institution without debt buffers requirement such as Minimum Requirement for Own Funds and Liabilities and for which Fitch does not expect resolution to be applied in case of a failure or default.

Source: Fitch Ratings, Fitch Solutions

Payment Continuity Uplift

Fitch considers that, once recourse to the cover pool has been enforced, covered bond payments may continue to be met without any interruption, provided that there are satisfactory liquidity protection mechanisms in place. We view liquidity as the main driver of the smooth transition from the issuer to the cover pool as the source of covered bonds interest and principal payments and, hence, normally the main determinant of the PCU, unless other risks constitute a greater threat to payment continuity.

The degree of protection against payment interruption risk on bond payments is expressed via the PCU granted by Fitch to the programme, which conveys the maximum number of notches above the institution's resolution reference point, that the covered bond rating can achieve on a PD basis. PCUs range from zero to eight notches. Fitch discloses the rating scenario corresponding to the expectation of timely payment on covered bonds as the "timely payment rating level".

Fitch has established the following standard maximum PCUs based on the degree of liquidity protection provided through legal requirement or contractual provisions.

> FIGURE 3: STANDARD PAYMENT CONTINUITY UPLIFT

Maximum PCU in notches	Effective liquidity protection for principal payments	Programme types
8	Maturity date extends beyond the longest maturing asset in the cover pool	Pass-through programmes
6	At least 12 months	Mortgage and public sector programmes predominantly exposed to developed banking markets (b)
5	At least six months	Public sector programmes predominantly exposed to developed banking markets (b)
4	At least nine months	Mortgage programmes predominantly exposed to developed banking markets (b)
3(a)	At least six months	Mortgage programmes predominantly exposed to developed banking markets (b)
0	No protection	Any programme exposed to maturity mismatches

(a) Notwithstanding the maximum PCU indicated in this table, German mortgage Pfandbriefe attract a PCU of up to four notches based on their mandatory 180-day liquidity provision, as Fitch gives credit to the larger range of refinancing options offered for cover pools eligible to such Pfandbriefe
(b) For the purpose of the Payment Continuity Uplift, developed banking markets are defined as countries where banking plays a fundamental role in channelling funds to the domestic economy and where several non-foreign-owned lenders are active, facilitating potential portfolio transfers/sales

Source: Fitch

In addition to principal payment protection as described above, Fitch expects some protection for timely interest payment to grant a PCU above zero notches. PCUs in the range of four to eight notches are associated with protection for interest payments, or swap payments and senior expenses as applicable, due over the next three months. For the purpose of payment interruption risk, exposure against counterparties not mitigated in accordance with Fitch's Structured Finance and Covered Bonds Counterparty Rating Criteria is assessed based on materiality for the rating and may lead to a lower PCU than would have been achievable if criteria were fully met. Payment continuity can also be negatively influenced by asset segregation and systemic or cover-pool-specific alternative management. If Fitch views that these risks could undermine a smooth transition from the issuer to the cover pool as a source of bond payments, it could grant a lower PCU than indicated above, depending on the materiality of the deficiency.

- > **Asset segregation:** Fitch analyses the strength of the asset segregation mechanism. It considers whether OC is beyond the reach of other creditors until all covered bonds have been repaid in full. Other identified risks relate to the potential claw back of cover pool assets, commingling with the issuer's other cash flows and borrower set-off rights.
- > **Systemic alternative management:** The agency studies the legal and/or contractual provisions for replacing an insolvent institution as manager of the covered bonds and servicer of the cover assets. The timing of the appointment of a substitute manager or administrator is considered, as well as the scope of their responsibilities — whether exclusively focused on the interests of the covered bond holders or also encompassing other creditors, and if the alternative manager has all powers and means to take the necessary actions.
- > **Cover-pool specific alternative management:** The cover pool-specific assessment focuses on the transferability of relevant data and IT systems to an alternative manager and buyer. Fitch evaluates the quality and quantity of data provided to the agency, whether cover assets, debtors' accounts and privileged swaps can be clearly identified within the issuing bank's IT systems, whether third-party rather than custom-made IT systems are used, the degree of automation and speed of cover pool reporting, as well as recordkeeping standards on cover assets documentation. Dormant or wind-down programmes may attract a worse assessment.

Recovery Uplift

Should covered bonds default, they may still benefit from high recoveries from the cover pool. Fitch recognises this through an uplift of up to two notches if the covered bonds' timely payment rating level is in the investment grade range and up to three notches if it is in the sub-investment grade range.

> FIGURE 4: RECOVERY UPLIFT

Recovery prospects	Investment grade	Non-investment grade
Outstanding	+2	+3
Superior	+1	+2
Good	+1	+1
Average	0	0

Source: Fitch

Fitch expects that fully collateralised programmes secured by standard assets such as mortgage loans and public sector exposures should be capable of generating at least a good level of recoveries (above half of the principal value) and will be eligible for a one-notch recovery uplift in all rating scenarios.

The recovery uplift is limited to one notch if Fitch identifies material downside risks to recovery expectations, for example, due to foreign-exchange (FX) risk. This could apply to some hedged programmes where foreign-currency covered bonds secured by assets in a domestic currency are swapped into the domestic currency until their maturity. In this case, Fitch does not stress FX rates when testing cash flows for timely payment. However, upon a default of the covered bonds, Fitch assumes such hedging arrangements in place to terminate. Therefore, in a recovery analysis, if the cover assets have a longer weighted average life (WAL) than the covered bonds, in a devaluation scenario the longer-dated domestic currency cash flows would be detrimental to recoveries on the foreign currency-denominated covered bonds assumed to be in default.

STEP 2: OC ASSESMENT

Testing Cash Flows For Timely Payment

Fitch's cash flow model is used to determine the level of OC that in Fitch's view supports timely payment in a given stress scenario above the resolution reference point. It compares stressed incoming cash flows with payments due on covered bonds. It assumes that the cover pool becomes static under the care of a third-party manager at a simulated date, following the hypothetical transition from the issuer to the cover pool as the source of payments of the covered bonds. Cash flowing after this date are modelled to be trapped in an account if not used to meet covered bond interest or principal payments. Asset and liability cash flows are considered after swaps, provided that they are privileged obligations and contracted with eligible counterparties.

Two major sources of risk are assessed when testing cash flows for timely payment: the credit risk of the cover pool inferred from the assets' default probabilities and recovery expectations (credit loss); and the cost of bridging maturity, interest rate and FX mismatches between the cover assets and the covered bonds (loss arising from assets and liabilities mismatches or ALM Loss). The OC corresponding to the timely payment rating level results from the sum of the ALM loss and credit loss in the most stressful scenario tested, considering all quarters where the switch to the cover pool is modelled.

If the programme is exposed to cash flows in foreign currencies without a hedge, the agency will apply stresses published in "Fitch's Foreign-Currency Stress Assumptions for Residual Foreign-Exchange Exposures in Covered Bonds and Structured Finance – Excel File", or disclosed in programme-specific rating communication; provided the agency believes that the open exposure represents a residual risk. The definition of what constitutes a residual risk and the treatment of FX exposures not viewed as residual is in Appendices of Fitch Covered Bonds Rating Criteria.

The components of Fitch's breakeven OC corresponding to the timely payment rating level above the resolution reference point are as follows:

> **Credit Loss**: The credit risk of cover pools is analysed in line with asset-specific covered bond or relevant structured finance criteria. This component represents the lifetime credit losses on the cover assets simulated by the agency in a stress scenario. It is derived from the weighted average default rate and weighted average recovery rate.

> **ALM Loss**: This component combines two main aspects: first addressing the impact of interest-rate and FX movements on the net present value (NPV) of assets and liabilities. The second addresses the impact of maturity mismatches between the cover assets and the liabilities. This simulates asset sales or refinancing to meet covered bonds maturities in the event of cash shortfall and calculates the cost of such sales via the application of a spread above the interest rate curve. Conversely, in the event of excess cash, it applies a negative carry margin to funds held until they are needed to pay interest or principal on covered bonds. Also, the ALM loss incorporates the effect of programme features such as pro-rata asset sale clause, pass-through redemption, and amortisation test.

Fitch's Refinancing Spread Levels (RSL) for which the methodology is found in the Appendices of the Covered Bonds Rating Criteria, are applied on top of Fitch's stressed interest rate to discount cash flows of the cover assets. The RSL is meant to cover mainly the liquidity cost and profit margin. Fitch applies a unified approach to determine public sector and mortgage RSLs. It is based on the analysis of through-the-cycle observed spreads of sovereign bonds (defined as sovereign bonds' yields over swap rates). It is also based on the assessment of other key liquidity measures of sovereign bonds, such as reserve currency flexibility and sovereign debt outstanding.

Recovery Given Default

The level of recovery uplift applied in assigning covered bonds ratings is also subject to OC stress testing, but without cash flow modelling. This is because recoveries from the cover pool in the event of a covered bonds default are not tied to any particular time horizon.

Programmes where OC given credit to by Fitch in its analysis roughly offsets stressed credit loss levels implied by the agency's static model output (see Credit Loss above) are expected to experience outstanding recoveries. The cover pool's credit loss is stressed in a rating scenario corresponding to the level of the assigned covered bond rating ie after the application of two or three notches of recovery uplift.

RELATIONSHIP BETWEEN OC AND RATING

Fitch's breakeven OC for the rating is the lowest protection that supports timely payment of covered bonds in a stress scenario associated with the timely payment rating level and meets the threshold for the applied recovery given default uplift. It is floored at 0% and is generally rounded to the nearest 0.5%. It will be expressed in terms of breakeven asset percentage (AP) for the rating in programmes where the documentation stipulates a maximum AP.

The breakeven OC (or AP) for a given rating is compared with the level of OC (or AP) that Fitch relies upon and that may be lower (or higher in the case of AP) than the percentage available as of the last reporting date. The agency will give credit to one the following:

- Legal and contractual commitments, if legally binding and enforceable against the issuer;
- Non-contractual public statements and/or covenants – such as undertakings given in the programme's investor reports including AP used in the Asset Coverage Test (ACT), the institution's annual reports or published on the investor relations section of the issuer's web site;
- The lowest level of OC (highest AP) recorded during the preceding 12 months, provided that the issuer's Short-Term IDR is at least at 'F2' and the programme is not in wind-down. Programmes are deemed to be in wind-down when the issuers no longer focus on eligible cover assets as part of their normal business activity.

Fitch will assess the reliability and sustainability of the OC or the AP. Furthermore, we may use another OC (or AP) benchmark where OC or AP levels over the past 12 months are not considered to be consistent with their current levels or indicative of expected levels. This may be based on Fitch's projection and will be disclosed in our rating communications. For issuers with a Short-Term IDR below 'F2', or for programmes Fitch considers to be in wind-down, only the minimum level of OC required by the relevant covered bond legal framework (or maximum legal/contractual AP) will be credited in the absence of valid contractual or otherwise public statements.

COVERED BONDS SURVEILLANCE

Fitch publishes individual surveillance workbooks for covered bond programmes and multi-issuer of cedulas hipotecarias (MICH) transactions on a quarterly basis. They gather in one document the list of information specified by the European Central Bank (ECB) in its guidelines on the implementation of the Eurosystem monetary policy framework (ECB/2016/31).

Specifically, the covered bonds files display the main analytical steps (the IDR, the resolution uplift, the PCU, recovery uplift) as well as the breakeven OC or AP for the assigned covered bonds rating and the level of OC or AP relied upon by Fitch in its analysis. In addition, they contain key information on the cover pool composition and assets and liabilities mismatches, non-confidential records of counterparties and the inventory of outstanding publicly rated bonds. The MICH surveillance publication template includes the key assets and liabilities characteristics for the *cédulas hipotecarias* of each bank participating in a given transaction, as well as the key assets and liabilities characteristics of the securitisation itself.

Each surveillance file for a given covered bond programme or MICH transaction can be accessed from the issuing entity's page on www.fitchconnect.com, under the Covered Bonds File tab.

Fitch Ratings' Main Criteria Applicable to Covered Bonds

> Covered Bonds Rating Criteria (30 June 2020)

> Fitch's Foreign-Currency Stress Assumptions for Residual Foreign-Exchange Exposures in Covered Bonds and Structured Finance – Excel File (30 June 2020)

> Fitch's Covered Bonds Refinancing Spread Level Assumptions – Supplementary Data File (30 June 2020)

> Originator-Specific Residential Mortgage Analysis Rating Criteria (15 July 2020)

> Structured Finance and Covered Bonds Counterparty Rating Criteria (29 January 2020)

> Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum (29 January 2020)

> Structured Finance and Covered Bonds Interest Rate Stresses Rating Criteria (6 December 2019)

> Structured Finance and Covered Bonds Country Risk Rating Criteria (6 February 2020)

> Covered Bonds and CDOs of Public Entities' Asset Analysis Rating Criteria (14 October 2019)

4.4 MOODY'S COVERED BOND RATING METHODOLOGY

By Jane Soldera, Nicholas Lindstrom and Juan Pablo Soriano, Moody's Investors Service

This chapter presents a high-level summary of certain aspects of the covered bond methodology currently used by Moody's Investors Service. For a full explanation of the methodology, please refer to "Moody's Approach to Rating Covered Bonds", 4 February 2019, available at www.moodys.com.

OVERVIEW

We determine our rating for a covered bond by applying a two-step process:

> Moody's Expected Loss Covered Bond Model (*EL model*): Our EL model provides an initial rating based on a largely quantitative calculation of expected loss, taking into account (1) the probability (the *CB anchor*) that the issuer will cease making payments on the covered bonds (a *CB anchor event*) and (2) the estimated value of the cover pool should the issuer cease to make payments on the covered bonds.

> Timely Payment Indicator (*TPI*) Framework: We then refine the maximum potential rating that the EL model produces to account for certain risks arising on the occurrence of a CB anchor event, particularly refinancing risk. We use our TPI framework to limit the maximum rating that covered bonds may achieve over and above the CB anchor, so that the final covered bond rating may be lower than the rating output of the EL model.

Ratings are assigned by a rating committee. The final covered bond rating is typically the lower of (i) the rating output of the EL model and (ii) if applicable, the maximum rating permitted under the TPI framework.

However, the rating committee may assign a lower rating due to other credit-relevant features. For example, ratings are subject to sovereign risk considerations, and thus are limited by the sovereign ceiling[1], and are also subject to legal risk considerations, such as the risk of comingling of funds on issuer default or claw-back of cover pool loans by the issuer's insolvency estate.

MOODY'S EXPECTED LOSS (EL) MODEL

The EL model assumes that covered bondholders have recourse, first, to the issuer and, second, to the cover pool. The model calculates the expected loss as a function of (1) the probability the issuer will default, giving rise to a CB anchor event; and (2) after a CB anchor event, the losses (if any) incurred on the cover pool.

Following a CB anchor event, we will determine the level of losses on the cover pool by assuming a stressed environment where, most likely, the bank that originated the cover pool assets has failed. The key factors that we assume will influence losses on the cover pool include:

> the credit quality of the assets in the cover pool;

> refinancing risk, that arises when funds need to be raised to refinance the cover pool following a CB anchor event; and

> any interest rate and currency mismatch risks that the cover pool is exposed to following a CB anchor event.

Our EL model calculates expected loss on a month-by-month basis, from the issue of a covered bond through to its final maturity. For each monthly period, the model calculates the probability of a CB anchor event, taking into account (1) the issuer's credit strength, based on the CB anchor, and (2) the estimated loss on the collateral (if any) assuming the issuer has ceased making payments on the covered bonds. The results are then summed and discounted back to reach a net present value of the overall expected loss on the covered bond.

1 See "Assessing the impact of Sovereign Credit Quality on Other Ratings", 20 June 2019 at www.moodys.com.

MOODY'S EL MODEL

The main factors that contribute to our EL model are:

1. Prior to a CB anchor event, the credit strength of the issuer; and
2. After a CB anchor event, the value of the cover pool, comprising the expected value at the time of the CB anchor event adjusted for:
    a. credit quality, that is credit losses on the assets;
    b. the cost of refinancing the cover pool; and
    c. losses resulting from interest rate and currency mismatches in the cover pool.

We look at each of these factors in more detail below.

Other factors we may take into account in our EL model, where relevant, include legal risks and the value of any overcollateralisation.

MOODY'S EL MODEL – CREDIT STRENGTH OF THE ISSUER

CB anchor is based on the issuer's credit strength. Before issuer default, the issuer's credit strength will be the most important influence on the covered bond programme's performance. We assume that as long as the issuer is performing its obligations under the covered bonds there should be no loss to covered bondholders. Therefore, our CB anchor is a measure of the risk that the issuer will cease performing its covered bond obligations. We typically base the CB anchor on the issuer's counterparty risk (CR) assessment[2]. For the majority of covered bonds in Europe, the CB anchor is the CR assessment plus one notch.

CR assessment measures whether the issuer will continue to pay on covered bonds. When a bank is in resolution[3], certain of its key payment obligations are likely to be honoured even while losses are imposed on unsecured debt, senior or otherwise, or junior deposits. The CR assessment measures the probability of default on those key payment obligations, taking into account the effect of resolution and tools available under resolution procedures. For European Union (EU) covered bonds, we typically position the CB anchor at the CR assessment plus one notch, and may do so elsewhere if the legal / regulatory framework means authorities are particularly likely to take steps to support covered bonds. In the majority of other cases, the CB anchor is at the same level as the CR assessment.

In exceptional cases we may decline to incorporate a notch of uplift to the CR assessment of a European covered bond, or we may reduce the CB anchor below the CR assessment (or use a different measure instead of the CR assessment). For example, we may make this kind of adjustment if the covered bond does not fall under a recognised legal regime, or if the covered bond collateral is of low quality and/or insufficient.

Other issuer benefits for covered bonds. Our EL model also takes into account various issuer and issuer group-related benefits in addition to the issuer's CB anchor. For instance,

1. Following a CB anchor event covered bondholders may have a senior unsecured claim on the issuer that may improve recoveries.
2. The issuer will normally actively manage the cover pool to the benefit of the covered bondholders: this may include replacing defaulted assets with performing assets, or replacing high loan-to-value (LTV) loans with lower LTV loans, particularly if this is required by law. This kind of support from the issuer explains why the issuer's role is more important than that of a simple guarantor.

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2 For European banks the CR assessment is typically positioned at the issuer's adjusted baseline credit assessment (BCA) plus zero to three notches. For more details see the "Banks" methodology referenced at the end of this article. If the issuer has no CR assessment, we may use the CR assessment of another group entity provided it has a sufficiently robust obligation to provide financial support to the issuer.

3 In the context of the European Union we refer here to the possibility of resolution proceedings and use of the bail-in tool under the EU Bank Resolution and Recovery Directive, adopted 15 April 2014.

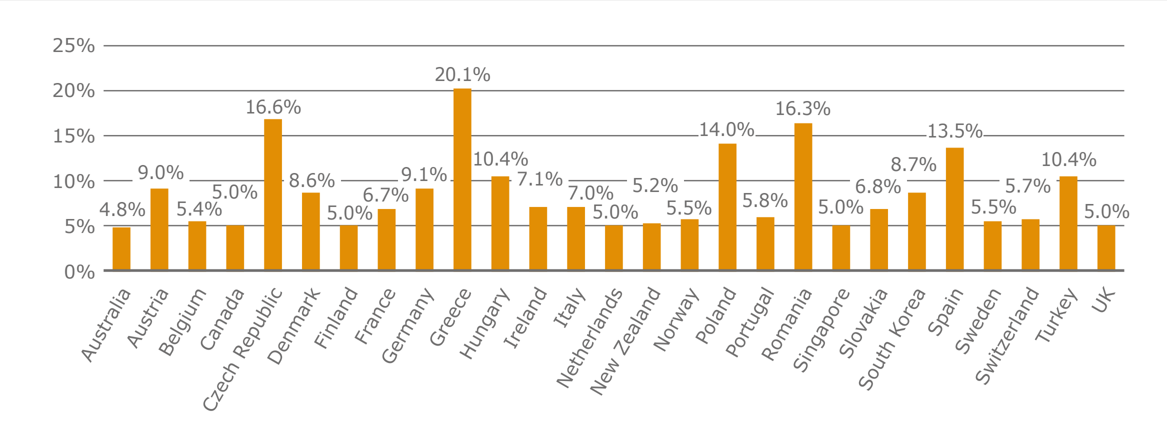
MOODY'S EL MODEL – VALUE OF THE COVER POOL AFTER A CB ANCHOR EVENT

To avoid losses on covered bonds following a CB anchor event, the realisable value of the cover pool, including any overcollateralisation, will need to be sufficient to cover the principal and interest payable on the covered bonds and any other equal or senior-ranking obligations. In our analysis, there are three key factors affecting the value of the cover pool: (1) the credit quality of the collateral; (2) refinancing of the cover pool; and (3) interest rate and currency mismatches. We describe the combined risk of refinancing the cover pool and interest rate and currency mismatches as *market risk*.

Credit quality of the cover pool

The credit quality of the cover pool is based on our estimate of borrower loan losses that will occur after a CB anchor event, in a highly stressed environment. The *collateral score* measures the actual level of loss, so that the lower the collateral score, the better the credit quality of the cover pool (see Figure 1). Factors that affect the collateral score vary, but the quality of a pool of mortgage loans will normally be affected by (1) the range and distribution of LTVs; and (2) the quality of the loan underwriting and, in particular, the calculation of whether the borrower can afford the loan. The quality of a pool of public sector loans will normally be affected by the credit strength of the public-sector borrowers and the concentration levels of the loans. The credit quality of a cover pool may vary over time, as issuers typically have discretion to add and remove assets, but we monitor this by re-calculating the collateral score for most programmes on a quarterly basis.

> FIGURE 1: SIMPLE AVERAGE COLLATERAL SCORE BY COUNTRY: MORTGAGE-BACKED COVERED BONDS



Source: Moody's, data as of Q2, 2019

Refinancing of the cover pool

The assets in the cover pool will generally have a natural amortisation period that is longer than the maturity of the covered bonds. This mismatch means that, following a CB anchor event, funds may need to be raised against the cover pool to enable timely payment of principal on the covered bonds. Moody's EL model assumes that when funds must be raised against the cover pool this will be done at a discount to the notional value of the cover pool. The refinancing environment for the assets at this time is likely to be stressed and we take this into account in the level of discount we build into our credit enhancement assumptions.

The credit enhancement necessary to address refinancing risk is based on three factors:

(1) The refinancing margin, which is the annualised discount rate necessary to sell or refinance the cover pool assets;

(2) The portion of the cover pool exposed to refinancing risk, which we typically assume is at least 50%; and

(3) The average life of the refinancing risk, i.e., the average amount of time a purchaser would have to hold the cover pool assets before they either repay or re-price. We typically assume this is at least five years.

Refinancing margins are set by reference to each jurisdiction and then adjusted for individual programmes. Factors that influence the refinancing margins in our analysis vary, but key factors include (i) on a jurisdiction level, the margins observed for covered bonds in a given market; (ii) on programme and/or jurisdiction level, the mitigants to refinancing risk; and (iii) on a programme level, the collateral quality.

Interest-rate and currency mismatches in the cover pool

Following a CB anchor event, investors in covered bonds may be exposed to interest rate and currency mismatches. These mismatches result from different interest rates on cover pool assets and covered bonds, the duration of those rates, and the different currencies in which cover pools and covered bonds may be denominated.

Under Moody's EL model, the potential mismatches are estimated by taking into account:

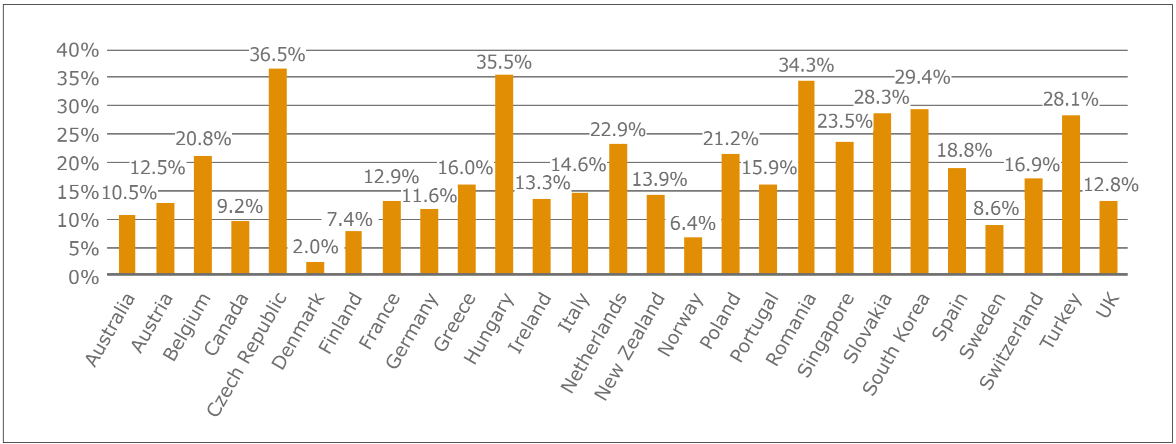
(1) The size of the possible interest rate (or currency) movement over the relevant period, for example looking at the impact of increasing and decreasing interest rates and taking the path that leads to the harshest expected loss on the covered bonds;

(2) The portion of the assets with interest-rate (or currency) mismatches; and

(3) In the case of interest-rate risk, the average duration of the mismatch based on how quickly the rates or margins on the assets in the cover pool may be adjusted.

Moody's EL model takes into account whether derivatives hedging is in place at the point of a CB anchor event and the probability of the covered bonds subsequently becoming unhedged. After a CB anchor event the transaction may become un-hedged following a default of either the swap counterparty or the issuer. We assess the risk of counterparty default by applying the principles outlined in our cross-sector methodology for assessing swap counterparties in structured finance.[4] We assess the risk of issuer default under a swap by assuming that the risks of the issuer having insufficient cover pool proceeds to respectively pay the swap and the covered bonds will be equivalent (typically based on legal or contractual priorities). The risk of non-payment can therefore be estimated by the TPI (see next section). However, in no case do we currently assume that derivatives used to hedge interest rate and currency risk completely remove these risks from a covered bond.

> Figure 2: Simple average market risk by country: mortgage-backed covered bonds



Source: Moody's, data as of Q2, 2019

4 "Moody's Approach to Assessing Counterparty Risks in Structured Finance", 5 June 2020, available at Moodys.com

MOODY'S TIMELY PAYMENT INDICATORS (TPIs): LINKAGE AND DELINKAGE

TPIs link the issuer, via the CB anchor, to the covered bond rating

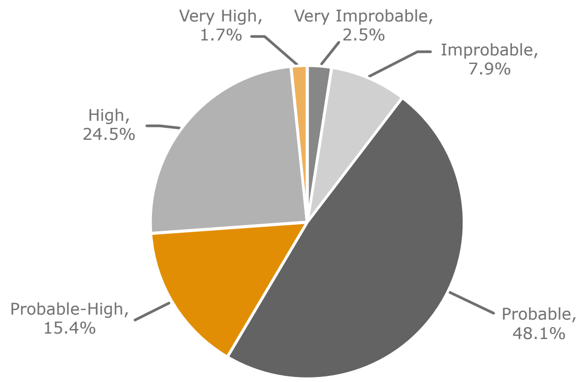
A "timely payment indicator" or "TPI" is our assessment of the likelihood of timely payment of interest and principal to covered bondholders following a CB anchor event. Following a CB anchor event, we assume the issuer can no longer make payments on the covered bonds from its general resources. Instead, we assume that the issuer will make payments to bondholders using funds deriving from, or proceeds raised against, the cover pool or that payments will follow from third-party support for the covered bond programme. TPIs are Very High, High, Probable-High, Probable, Improbable and Very Improbable.

We publish TPI tables setting out the expected maximum covered bond ratings for different CB anchor/TPI combinations (see Moody's rating methodology report referred to at the end of this chapter). We will normally determine the rating ceiling based on the TPI table. However, for some programmes the actual rating ceiling may be higher or lower, particularly if the issuer has a low investment grade rating, or is rated below investment grade.

We determine TPIs by considering the range of qualitative factors supporting timely payment. In this analysis the most important consideration– and the biggest risk to timely payment for most covered bonds – is the existence of refinancing risk. Refinancing risk is highly volatile, which is why our highest ratings cannot be maintained on covered bonds that are materially subject to refinancing risk unless the bonds are also backed by a highly-rated issuer. A key TPI factor relevant to refinancing risk is whether other market participants or the financial authorities might act to avoid default on the covered bonds despite the issuer failing. Important considerations in this regard are the strength of the covered bond market and regulatory framework. We typically look at broadly applicable aspects of TPIs at the jurisdiction level and determine a benchmark TPI for the jurisdiction and asset class, e.g. mortgage or public sector.

We may then adjust TPIs at the programme level to reflect particular features of a programme. On a programme level, factors that we consider relevant to TPI levels include (1) continuity of servicing and cash management; (2) the risk that any relevant swaps might be terminated; (3) the risk of acceleration of the covered bonds; (4) overcollateralisation levels; (5) existence of maturity extensions; and (6) the issuer's ability to change the programme (in particular to add new assets that may be more/less liquid and enter into new hedging arrangements).

> Figure 3: TPI distribution across covered bond programmes



Source: Moody's, data as of Q2, 2019

TPI de-linkage

Covered bonds can be TPI "de-linked". TPI de-linkage implies a reduced level of credit linkage between the issuer and the covered bonds that is broadly analogous to the credit linkage between a securitisation originator and senior securitisation notes. For us to consider a covered bond as TPI de-linked we would consider whether refinancing risk and the risks around the role of the issuer have been reduced sufficiently to minimise their impact on the covered bonds. For example, one method of minimising refinancing risk that we have seen is to replace a hard or soft bullet principal repayment on the bonds with a pass-through or conditional pass-through repayment from the cover pool cash-flows.

References (all available at www.moodys.com):

> Rating Methodology – Moody's Approach to Rating Covered Bonds; 18 June 2020

> Rating Methodology – Banks; 25 November 2019

> Covered bonds – Sector update, published quarterly

> Cross Sector Rating Methodology – Local and Foreign Currency Country Ceilings for Bonds and Other Obligations Methodology, 25 November 2019

> European Covered Bond Legal Frameworks: Moody's Legal Checklist; 9 December 2005

4.5 S&P GLOBAL RATINGS COVERED BOND RATING METHODOLOGY

By Barbara Florian and Antonio Farina, S&P Global Ratings

S&P Global Ratings' covered bonds rating approach is explained in the criteria "Covered Bonds Criteria," published on 9 December 2014, and "Covered Bond Ratings Framework: Methodology and Assumptions," published on 30 June 2015. These articles are available on Ratings Direct on the S&P Capital IQ platform and at www.spratings.com/coveredbonds. While this paper summarises certain covered bond criteria and rating methodologies, these articles remain S&P Global Ratings' definitive treatment of the subject.

S&P Global Ratings organises the analytical process for rating covered bonds into four stages (see Figure 1):

1. Performing an initial analysis of legal and regulatory risks and operational and administrative risks specific to the issuing bank (issuer) which contribute to our assessment of whether the covered bond programme is sufficiently "distanced" from the credit risk of the issuer so as to permit the ratings on the programme (and on the covered bonds) to be higher than the issuer's own credit rating (ICR).

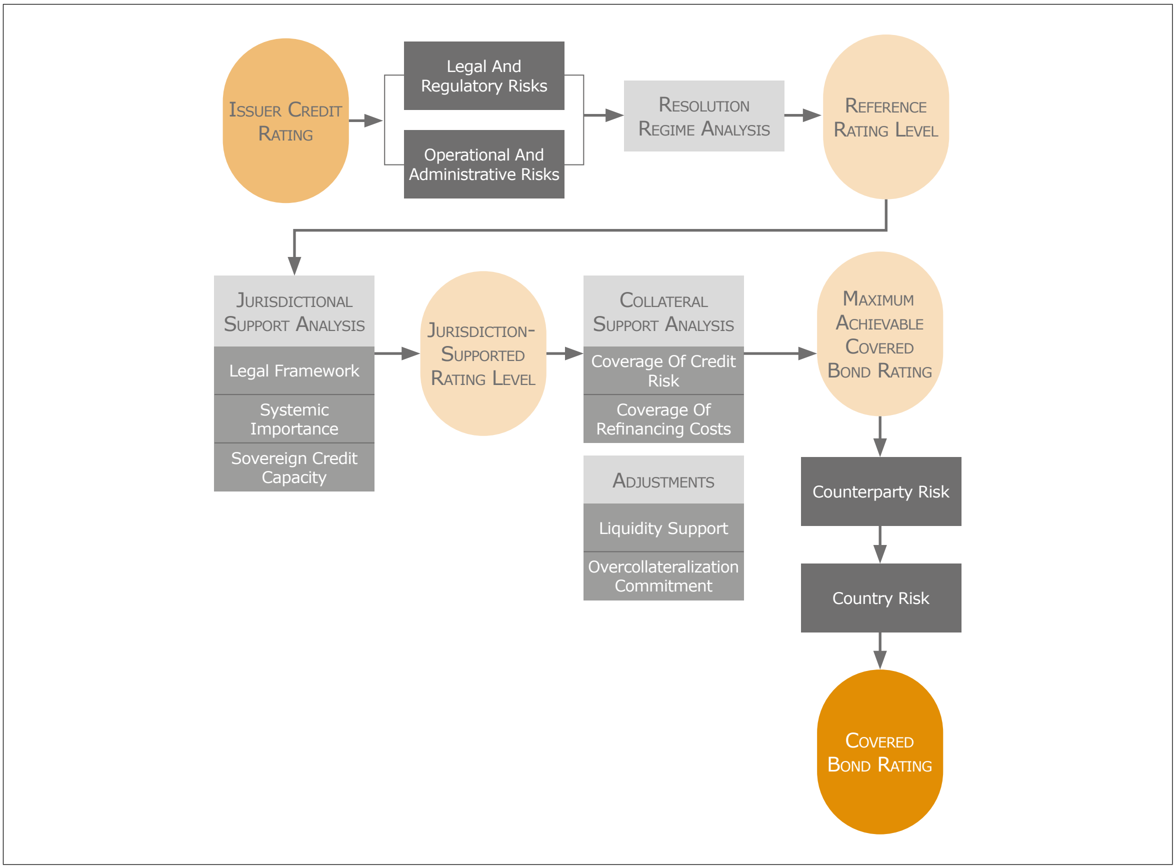
2. Assessing the starting point for the analysis of the potential uplift above the ICR, based on the relevant resolution regime.

3. Determining the potential bond rating solely based on cover pool-specific factors and jurisdictional support.

4. Combining the results of the above and incorporating any additional factors, such as counterparty risk and country risk, to assign the final covered bond rating.

The outcome of S&P Global Ratings rating analysis is a rating on the covered bond programme and the bonds issued under the programme. The quarterly publication "Global Covered Bond Characteristics And Rating Sum mary" gives an overview on the key rating factors, including credit and cash-flow indicators of the programmes that S&P Global Ratings rates (see www.spratings.com/coveredbonds).

> Figure 1: Covered Bond Ratings Framework



Source: S&P Global Ratings

COVERED BOND ISSUER – SPECIFIC FACTORS

We conduct our initial analysis of covered bond ratings with the primary aim of determining whether the covered bond rating may exceed the ICR. Due to the dual-recourse nature of covered bonds, the covered bond rating is typically no lower than the relevant rating on the covered bond issuer. A bank's resolution counterparty rating (RCR), where we have assigned one, reflects its creditworthiness in reference to the timely fulfillment of the terms of certain financial obligations that may be protected from default within an applicable bail-in resolution process. For that reason, if we assess that covered bonds would be protected in such a process, the covered bond rating can also not be lower than the RCR on the issuing bank (if we have assigned one).

Legal and regulatory risks

The assessment of legal and regulatory risks focuses primarily on the degree to which a covered bond programme isolates the cover pool assets from the bankruptcy or insolvency risk of the issuer. If the asset isolation analysis concludes that covered bonds are not likely to be affected by the bankruptcy or insolvency of the issuer, then we may assign a rating to the covered bonds that is higher than the rating on the issuer.

S&P Global Ratings typically reviews the following legal aspects when assigning a rating to a covered bond programme:

> The nature of the segregation of the assets and cash flows if the issuer becomes insolvent;
> Whether there is any acceleration of payments to noteholders if the issuer becomes insolvent – whether payments of interest and principal will continue in accordance with the original terms of the covered bonds;
> Whether there is any payment moratorium or forced restructuring of the programme or the covered bonds if the issuer becomes insolvent; Whether there are any limits to overcollateralisation levels, i.e., if a programme may overcollateralise its covered bonds above the minimum limit defined under the legislation or the programme documents, and whether this additional overcollateralisation is available to the covered bondholders, notwithstanding any issuer insolvency;
> The treatment of any hedging agreements if the issuer becomes insolvent;
> Whether the programme can access funding if the issuer becomes insolvent; and
> The management of the cover pool both before and after the issuer becomes insolvent.

Operational and administrative risks

The analysis of operational and administrative risks focuses on individual transaction parties to assess whether they are capable of managing a covered bond programme while bonds remain outstanding.

The primary transaction party in a covered bond programme is the issuer which it is why we perform a risk analysis on its origination, underwriting, and servicing operations.

RESOLUTION REGIME ANALYSIS

Our criteria recognise that effective resolution regimes that exempt covered bonds from bail-in like the EU's Bank Recovery and Resolution Directive (BRRD) can increase the likelihood that an issuer can continue to service its covered bonds despite its own insolvency and defaulting on its senior unsecured obligations. Should an issuer become insolvent and thereupon be subject to a resolution regime that excludes covered bonds from the issuer's insolvency proceedings, our assessment of the likelihood that the issuer would still service the programme's covered bonds without receiving support from the jurisdiction or reverting to a sale of programme assets determines the reference rating level (RRL).

In countries subject to effective resolution regimes, depending on the systemic importance of the covered bond programmes to that country, our criteria provide that we may add up to two notches above the ICR. This RRL reflects our view of the increased likelihood that the issuer will service its covered bonds even if insolvent. For countries without an effective resolution regime that exempts covered bonds from bail-in, our criteria specify that we set the RRL at a level equal to the issuer's ICR.

JURISDICTIONAL SUPPORT ANALYSIS

If the issuer becomes insolvent, fails to return to being a going concern following resolution proceedings, and is unable or unwilling to service the programme, the programme administrator would turn to sources other than the issuer to meet payments due and mitigate the refinancing risk. In our opinion, jurisdictional support would likely be forthcoming in countries with a robust covered bond statutory and regulatory framework and where covered bonds play a systemically important role in government policy.

The criteria reference the support of a "jurisdiction" rather than a "government." That is because we believe support may come through direct government intervention such as from a central bank; indirect intervention such as a government's use of private-sector mechanisms to provide support; or through trustees, administrators, or other parties acting to protect covered bonds according to specific laws or other requirements.

Under S&P Global Ratings criteria, we consider the likelihood for the provision of governmental support when the cost of a failed covered bond programme to an economy and financial system would be considered greater than the cost of providing support. To assess this, we analyse: 1. the strength of the legal framework, 2. the systemic importance of the covered bonds in the country, and 3. the credit capacity of the sovereign to support the covered bonds (see Figure 2). Based on these specific factors, the criteria establish a four-point classification of jurisdictional support of "very strong," "strong," "moderate," and "weak". Depending on our assessment, the criteria provide for a potential rating uplift of up to three notches above the covered bond's RRL. This rating uplift reflects the strength of jurisdictional support that we believe might be forthcoming.

This jurisdictional-supported rating level (JRL) is our assessment of the creditworthiness of a covered bond programme once we have taken into consideration jurisdictional support for the programme, but before giving benefit to the programme administrator's ability to access other refinancing sources.

> Figure 2: Assessing Jurisdictional Support

Assessments	Factors				Jurisdictional support uplift
	Legal framework	Systemic importance	Sovereign credit capacity		
Very Strong	Robust legal framework that establishes a minimum level of overcollateralisation, and sets out a dedicated public supervision and eligibility criteria for high-quality cover pool assets. The framework rests solely on the spercific covered bond legislation.	Covered bonds play a material role as a funding source for the financial system, with material economic impact.	Sovereign has sufficient financial resources to support covered bonds, not subject to third-party conditions, and its foreign currency rating is 'BBB-' or above.	→	Very strong: up to three notches of uplift above the RRL
Strong	Robust legal framework that establishes a minimum level of overcollateralisation and provides eligibility criteria that allow only high-quality assets in the cover pool.	Covered bonds play an important role as a funding source for the financial system, with important economic impact.	Sovereign has sufficient financial resources to support covered bonds (subject to third-party conditions) and its foreign currency rating is 'BBB-' or above.	→	Strong: up to two notches of uplift above the RRL
Moderate	Same as for strong.	Covered bonds play a modest role as a funding source for the financial system, with modest economic impact.	Sovereign has sufficient financial resources to support covered bonds (subject or not to third-party conditions) and its foreign currency rating is 'BB-' or above.	→	Moderate: up to one notch of uplift above the RRL
Weak	Meets minimum legal provisions but does not meet all of the characteristics of a moderate legal framework.	Does not meet the characteristics of at least moderate support.	Does not meet the characteristics of at least moderate support.	→	Weak: no uplift above the RRL

Source: S&P Global Ratings

COLLATERAL SUPPORT ANALYSIS

We then consider to what extent overcollateralisation enhances the creditworthiness of a covered bond issuance by allowing the programme cover pool to raise funds from a broader range of investors and so address its refinancing needs. This overcollateralisation may cover the credit risk only, that is the expected losses incurred by the cover pool in a stressed scenario such as where defaults on underlying assets in the cover pool exceed assumed amounts, or such credit risk plus the refinancing costs, that is, the additional collateral required to raise funds against its assets to repay maturing covered bonds (due to the mismatch between assets and liabilities). We refer to this as "collateral-based uplift".

Our analysis starts with the calculation under our criteria of the credit enhancement for each notch of collateral-based uplift to meet a specific rating level for the programme. This is a function of the maximum number of notches of uplift for collateral, i.e., the maximum collateral-based uplift, and the "target credit enhancement" (TCE), which is the level of overcollateralisation that is commensurate with this maximum collateral-based uplift (see Figure 3).

We then compare the required credit enhancement with the available credit enhancement to calculate the "potential collateral-based uplift". We adjust this uplift for liquidity risk and uncommitted overcollateralisation to arrive at the maximum achievable covered bond rating.

The "maximum collateral-based uplift" for a given covered bond programme depends on our view about the presence of active secondary markets for the assets in the cover pool. In particular, we may allow up to four notches of collateral-based uplift above the JRL for overcollateralisation covering credit risk and refinancing costs where we believe active secondary markets exist to enable the covered bond to raise funds against its assets. Alternatively, we may allow up to two notches of collateral-based uplift above the covered bond's JRL for overcollateralisation to cover credit risk only, in jurisdictions that we believe do not have a sufficiently active secondary market to enable the covered bond to raise funds against its assets.

Figure 3 below shows the credit enhancement necessary to achieve each additional notch of uplift above the RRL, before adjusting for liquidity risk and uncommitted overcollateralisation.

> FIGURE 3: CREDIT ENHANCEMENT FOR UPLIFT ABOVE THE RRL

Assigned jurisdictional uplift	**Notches of uplift above the issuer's RRL**						
	1	**2**	**3**	**4**	**5**	**6**	**7**
No jurisdictional uplift	Credit risk at RRL plus 1 rating category	Credit risk at RRL plus 2 rating categories	Credit risk at 'AAA' and 75% of the refinancing costs	Credit risk at 'AAA' and 100% of the refinancing costs	N/A		
1 notch of jurisdictional uplift	Legal minimum	Credit risk at RRL plus 2 rating categories	Credit risk at 'AAA' and 50% of the refinancing costs	Credit risk at 'AAA' and 75% of the refinancing costs	Credit risk at 'AAA' and 100% of the refinancing costs	N/A	
2 notches of jurisdictional uplift	Legal minimum	Legal minimum	Credit risk at 'AAA' and 25% of the refinancing costs	Credit risk at 'AAA' and 50% of the refinancing costs	Credit risk at 'AAA' and 75% of the refinancing costs	Credit risk at 'AAA' and 100% of the refinancing costs	N/A
3 notches of jurisdictional uplift	Legal minimum	Legal minimum	Legal minimum	Credit risk at 'AAA' and 25% of the refinancing costs	Credit risk at 'AAA' and 50% of the refinancing costs	Credit risk at 'AAA' and 75% of the refinancing costs	Credit risk at 'AAA' and 100% of the refinancing costs

Color coding	Notches of uplift allocated on the basis of regulatory minimum overcollateralization, or, in order to achieve a 'AAA' rating on the covered bond, the higher of regulatory minimum and credit risk at a 'AAA' level of stress	Notches of uplift allocated on the basis of coverage of credit risk only	Notches of uplift allocated on the basis coverage of 'AAA' credit risk and refinancing costs

Note: This applies to programms with no adjustments for liquidity or uncommitted overcollateralisation and assuming that a secondary market for the cover pool assests exists to cover refinancing costs. N/A—Not applicable.

Source: S&P Global Ratings

Credit risk analysis

S&P Global Ratings analyses the underlying cover pools to form a view on the expected stressed asset performance using jurisdiction- and asset-specific assumptions. These cover pool assets typically contain residential mortgage loans, public sector bonds and loans, or some other form of high credit-quality collateral. The credit analysis also incorporates issuer-specific aspects, such as the impact of its underwriting policies or its collateral management.

Refinancing risk analysis

S&P Global Ratings models refinancing risk by applying an additional asset dependent "spread shock" when calculating a stressed net-present value of the cash flows of the assets to be sold. In its calculation of the target credit enhancement, we also incorporate asset default stresses (including any amounts for counterparty risks that are not structurally mitigated) and any interest and currency stresses that are not appropriately hedged.

After comparing the required credit enhancement with the available credit enhancement to calculate the "potential collateral-based uplift", we adjust this uplift for liquidity risk and uncommitted overcollateralisation to arrive at the maximum achievable covered bond rating.

We reduce the collateral-based uplift by one notch if the programme does not benefit from at least six months of liquidity. This adjustment reflects our view that accessing the market to raise funds against the assets may take time, during which the bonds may be exposed to payment disruption.

S&P Global Ratings considers the issuer's commitment on overcollateralisation levels, reducing the potential collateral-based uplift when we believe there is a risk that the overcollateralisation level, on which we base our analysis, may decrease over time.

EXTERNAL FACTORS

Finally, in addition to the analysis of the risks outlined above, S&P Global Ratings reviews any counterparty or country risk exposures. These risks might constrain the achievable covered bond rating even if sufficient overcollateralisation to cover other risks exists. Therefore, we analyse whether these risks would limit the maximum achievable covered bond rating as determined, based on the previous steps of the analysis.

Counterparty risks

If a programme benefits from interest rate or currency hedges to mitigate interest rate or currency mismatches, S&P Global Ratings reviews the underlying agreements to assess whether they conform with its counterparty criteria. Deviations can result in either incorporating the unhedged risks into the sizing of the target credit enhancement or capping the maximum achievable covered bond rating.

In its analysis, S&P Global Ratings also assesses how other counterparties that provide support to the transaction could affect the rating. This also includes whether account bank risk is adequately mitigated or whether, if the issuer becomes insolvent, cash flows could become commingled and ultimately lost. The loss of cash flows, in our view, must also be seen as an asset default related risk. If not mitigated in accordance with our counterparty criteria, we typically incorporate any such risk in our analysis of the cover pool's payment structure and cash flow mechanics, alternatively, the covered bond rating will be further constrained.

Country risks

We also analyse the underlying assets' and transaction's sensitivity to country risk and the asset portfolio's diversification by jurisdiction. For covered bonds exposed to refinancing risk, we assign up to five notches of uplift above the sovereign rating.

We determine the maximum rating differential between sovereign and covered bond ratings based on the sovereign rating level and the covered bond programme's country-risk exposure. This assessment caps any potential further uplift typically available under our criteria for rating covered bonds.

DELINKING COVERED BOND RATINGS

A covered bond rating is delinked from the RRL of the issuing bank when the programme structurally has no mismatch between assets and liabilities and the covered bond's overcollateralisation is legally or contractually committed. In this case, we determine the rating according to whether the available credit enhancement is sufficient to pass our stress scenarios. In other words, we do not cap it as a function of the issuer's RRL or a predetermined level of rating uplift.

The assignment of outlooks

Under its criteria for rating covered bonds, S&P Global Ratings assigns an outlook to all covered bond ratings that are linked to the issuer's creditworthiness. These outlooks provide a view of a programme's potential for a rating change and its direction over the intermediate term. The covered bond outlooks take into account S&P Global Ratings views on the outlook on the issuer, the level of ratings uplift achieved, as well as potential rating changes due to the performance of the collateral.

S&P Global Ratings' Covered Bonds Criteria

- Counterparty Risk Framework: Methodology and Assumptions, March 8, 2019
- Incorporating Sovereign Risk in Rating Structured Finance Securities: Methodology and Assumptions, Jan. 30, 2019
- Global Methodology and Assumptions: Assessing Pools of Residential Loans, Jan. 25, 2019
- Methodology and Assumptions: Assessing Pools of European Residential Loans, Aug. 4, 2017
- Structured Finance: Asset Isolation and Special-Purpose Entity Methodology, March 29, 2017
- Covered Bond Ratings Framework: Methodology and Assumptions, June 30, 2015
- Methodology and Assumptions: Analyzing European Commercial Real Estate Collateral in European Covered Bonds, March 31, 2015
- Covered Bonds Criteria, Dec. 9, 2014
- Methodology and Assumptions for Assessing Portfolios of International Public Sector and Other Debt Obligations Backing Covered Bonds and Structured Finance Securities, Dec. 9, 2014
- Use of CreditWatch and Outlooks, Sept. 14, 2009

4.6 SCOPE RATINGS COVERED BOND RATING METHODOLOGY

By Karlo Fuchs and Mathias Pleißner, Scope Ratings

SUMMARY

Our covered bond rating methodology[1] reflects the strong prudential metrics and enhanced regulatory and supervisory framework available to banks and their debt instruments. The methodology considers that the scenario in which a covered bond relies solely on a cover pool for repayments has become extremely remote. As a result, our covered bond ratings reflect:

1) The importance of the issuer rating as the fundamental anchor for the covered bond analysis;
2) The fundamental credit support provided by the applicable legal and bank resolution frameworks, which can further elevate the covered bond rating (the strength of such factors provides a minimum credit uplift and establishes the anchor for the additional support provided by the cover pool); and
3) Cover pool credit support reflecting the availability of a second recourse if the issuer becomes insolvent (after resolution).

> Figure 1: Building blocks of Scope's covered bond methodology

1) Rating anchor	2) Fundamental credit support	3) Cover pool analysis	Max Differentiation
		Cover pool support +3	+9 Notches
		Cover pool support +2	+8 Notches
		Cover pool support +1	+7 Notches
	Resolution regime +4	Covered Bonds Rating Floor = Fundamental Credit Support	+6 Notches
	Resolution regime +3		+5 Notches
	Resolution regime +2		+4 Notches
	Resolution regime +4		+3 Notches
	Legal framework +2		+2 Notches
	Legal framework +1		+1 Notch
Issuer rating	Issuer rating		Issuer rating

Source: Scope Ratings

The **anchor point** to our covered bond rating, the bank rating, represents a credit opinion on a bank's ability to meet its contractual financial commitments on a timely basis, and in full, as a going concern. Scope's bank ratings reflect to what extent credit fundamentals and other factors assessed through the rating process influence the probability that regulatory action would lead to default-like events.

The **fundamental credit support** reflects that covered bonds receive preferential treatment in a resolution scenario, are likely to remain a going concern funding instrument and that a sole recourse to a clearly defined standalone cover pool would only materialise if: i) early supervisory intervention has not helped to stabilise the bank; ii) regulatory capital is fully depleted, and significant amounts of bail-inable debt converted into capital or written down are insufficient to ensure the continuation of the issuer; and iii) the restructured or resolved bank becomes insolvent. We consider that fundamental credit factors can support a credit enhancement of up to six notches above the rating of a resolvable bank that has sizeable bail-inable debt and is a regular and visible covered bond issuer in a covered-bond-supportive country.

1 More details can be found in 'Rating Methodology: Covered Bonds', available at www.scoperatings.com.

The **cover pool analysis** can further support the rating by up to three additional notches above that suggested by the fundamental credit strength of the covered bond (regulatory frameworks applicable to the issuer and its covered bonds). The credit differentiation between the bank's rating and the covered bonds can thus be as high as nine notches.

In general, our covered bond ratings are linked to the issuing bank, except when features similar to that of a structured finance transaction override the issuer's influence on a covered bond's risk and refinancing structure. For example, the cover pool benefit for covered bonds that become pass-through is not likely to be capped at three notches above our fundamental view on the supporting frameworks.

FUNDAMENTAL CREDIT SUPPORT ANALYSIS

The legal framework and resolution regime analysis in our methodology covers relevant aspects before and after an issuer becomes insolvent and can provide a credit uplift of up to two and four notches, respectively, to the bank rating (i.e. a total of six notches for fundamental aspects). It provides credit differentiation based on the clarity of provisions behind the ongoing maintenance of a high-credit-quality cover pool, as well as when the cover pool is the sole source of repayment for a covered bond.

The resolution regime analysis also addresses how well statutory provisions avoid negative repercussions on the covered bond in a resolution scenario. Systemic importance might mobilise regulators, supervisors or the private sector to support and proactively avoid uncertainty among covered bond investors during resolution. The resolution regime assessment also identifies the importance of relevant covered bond types in each country to understand incentives for market-led solutions. We also reflect whether a proactive and cohesive stakeholder community is actively working together to preserve the credit quality of covered bonds.

For highly rated banks, covered bond ratings can primarily be driven by the fundamental benefits from regulatory frameworks applicable to banks and their covered bonds. Therefore, benefits from the cover pool only become relevant for the covered bond rating when a bank's credit quality and ratings start to shift down.

Legal framework analysis

A supportive legal framework can provide a covered bond rating with up to two notches of credit uplift from the issuer rating. Scope's legal framework assessment identifies whether the covered bond structure can transition smoothly away from the insolvent issuer. The transition should avoid acceleration and allow the cover pool to be maintained. Preserving the cover pool upon the restructuring or insolvency of the issuer helps to ensure that full and timely payments on outstanding covered bonds continue. Programme enhancements, in particular overcollateralisation, should remain available, valid and enforceable to other creditors, and neither a regulatory action nor an issuer event of default should impact the ability to manage the covered bond structure in the best interests of investors.

The framework should also advise on how to contain credit, market and liquidity risks before insolvency. Proactive liquidity management before and after insolvency, which helps with timely payment to covered bond holders, should also be possible. Furthermore, we seek to understand how well a legal framework resolves potential conflicts of interest between covered bond holders and other debtors in the case of regulatory action or insolvency. Lastly, we identify whether a supervisor or special trustee monitors the programme's structure independently and regularly (asset composition/structural risk) and whether this function can effectively act as a gatekeeper against any adverse cover pool management by the issuer.

If the above elements only partially apply, credit differentiation will be limited. For instance, if covered bonds were to accelerate upon the issuer's insolvency, because of either contractual or statutory provisions, the legal framework analysis may only warrant a maximum uplift of one notch for the covered bond rating. Similarly, weak covered bond oversight, or the absence of it, will likely prevent the highest credit differentiation. The limitation reflects that some main assumptions for a covered bond are unmet, i.e. the uninterrupted payment of bonds after insolvency, or special oversight.

The European covered bond harmonisation addresses all major structural aspects relevant for the legal framework uplift. Neither national discretion in the translation of the directive nor the difference between standard and premium European covered bonds will likely impact the ability to provide the full uplift for most European covered bonds. Remaining legal differences will instead have implications in our resolution regime analysis (i.e. lower uplift for non-standard asset types) or the cover pool risk analysis.

Resolution regime analysis

We assign up to four notches of uplift for a supportive resolution framework to reflect a high likelihood that an issuer can maintain their covered bonds as a going-concern funding instrument. The uplift reflects the extreme unlikelihood that an investor would need to rely solely on the cover pool if its issuer operates in a framework similar to the Bank Recovery and Resolution Directive (BRRD). We analyse the following factors that would prevent the covered bond's credit quality from being affected by regulatory intervention in the issuer:

- whether statutory provisions in resolution regimes explicitly address that covered bonds will generally not be impacted upon a regulatory intervention in the issuer (no bail-in);
- whether the issuer's business model and balance sheet structure suggest that regulators will very likely use available resolution tools to restructure the issuer to maintain the covered bond programme as a going concern;
- whether covered bonds are a systemically important funding tool used by most banks in the country, the covered bond type is used to refinance cover pool assets that are important for the economy, and the covered bond issuer is actively and visibly using the product; and
- whether an active domestic stakeholder community (regulators, issuers and investors) proactively monitors market developments, maintains confidence in the product and encourages improvements to relevant regulations. We further assess the clarity and predictability of relevant statutory provisions, their interpretation as well as the track record of relevant authorities.

COVER POOL ANALYSIS

To assess the credit strengths of cover pool support, we evaluate the expected loss on a covered bond. We look at issuer-specific asset performance and portfolio characteristics, as well as cash flow risks including interest rate, currency and maturity mismatches. The cover pool analysis provides information on how specific characteristics of the covered bond structure, including the supporting overcollateralisation, may affect the instrument's loss given default. The analysis also allows us to assess the level of rating stability that the cover pool adds to the instrument.

A cover pool with a strong credit profile may add to the credit differentiation of the covered bond by up to three notches above that from the fundamental framework analysis. The credit differentiation between the bank and the covered bonds can thus be as high as nine notches. The highest covered bond ratings can in principle be supported by a strong cover pool, provided the covered bonds are issued by a resolvable and visible investment-grade issuer (at least BBB-) located in a covered-bond-supportive country.

Asset analysis

We rely on market-standard approaches to establish cover pool default distributions. Concentrated cover pools, typical for public sector or commercial real estate-backed covered bonds, are analysed with Monte Carlo simulation tools. For homogenous, granular cover pools, typical for residential-mortgage loan portfolios, we employ the large homogeneous portfolio approximation (LHPA) approach. Assumptions are typically established based on issuer-specific performance data, but can also conservatively established with generic, country- and asset-specific assumptions.

Cash flow analysis

This analysis takes the scheduled cash flows of the cover pool assets, outstanding covered bonds and related derivatives into account. We identify the maximum level of credit differentiation a cover pool can support by increasing the severity of stresses for credit, market, and, in particular, refinancing risks. We also consider various levels of overcollateralisation to gain insight into the sensitivity of this primary risk mitigant. We complement our static cash flow analysis with forward-looking views on the potential evolution of risk factors.

Assessing the covered bonds' repayment risk is important for their ratings. Timely repayment of bullet maturities is generally the highest risk covered bonds can be exposed to. Structural features may mitigate, but in most cases will not fully eliminate, refinancing risk. Our assessment of the impact that refinancing risk has on covered bonds' credit quality also reflects their role in the financial system. Our quantitative assessment reflects the options available to generate liquidity to repay maturing covered bonds. Generally, we recognise that proceeds from asset sales will be higher in countries where the product is systemically important and where there is an established covered bond market, compared to countries where covered bonds are only used occasionally.

Availability of overcollateralisation

Overcollateralisation is the variable which is managed most actively by issuers to support and maintain covered bond ratings. The assessment of an issuer's ability and willingness to provide such funding is essential and must be reflected in the rating analysis. In the absence of contractual commitments, we assume that the lower the bank rating falls, the more likely an issuer's management no longer provides adequate overcollateralisation.

If the issuer has a rating of at least BBB, our analysis considers available overcollateralisation. If the rating is below BBB, our decision to account for available overcollateralisation depends on whether the issuer's communication to capital markets on overcollateralisation is sufficiently robust and whether this aligns with expectations. We adjust the level of rating-supporting overcollateralisation downwards if there are no such statements, reflecting past volatility and our forward-looking view on expected levels. We only consider the legal minimum for issuers rated BB or below if there are no public contractual commitments.

Counterparty risk

We assess the exposure to key counterparties and how this could impact the cover pool analysis. The guiding principles are the materiality of counterparty risk, differentiation between financial and operational risk exposures, and the analysis of risk remedies in the specific context of the covered bond transactions.

This analysis also indicates whether the inadequate credit strength of external counterparties could also impact the performance and creditworthiness of a covered bond. This could constrain the potential benefit from the cover pool analysis. An effective replacement framework or other structural risk-mitigating mechanisms for key agents can typically prevent a negative impact. Ineffective remedies result in quantifying counterparty risk, which can ultimately constrain the benefit of the cover pool analysis for the covered bond rating. This is especially relevant for counterparty obligations that are very significant or bespoke.

Sovereign risk

We do not mechanistically limit the maximum rating achievable by a covered bond to the credit rating of the country in which the issuing bank is based or where cover pool assets are originated in. Imposing a mechanistic rating cap, particularly in terms of eurozone countries, does not adequately allow for a relative ranking of covered bonds' credit quality, in our view.

However, macroeconomic factors remain important to our rating analysis. We analyse the impact of sovereign and macroeconomic developments to ensure our view on the credit fundamentals of the relevant home sovereign is included in the asset and cash flow stresses that support covered bond ratings. The weight given to these factors may differ in both the covered bond and the bank analysis, as the cover pool's composition and risk profile may exhibit different risk characteristics than the rest of the balance sheet. As a result, sovereign risk considerations will differ in significance among issuers, even between different covered bond types from the same issuer.

ESG risk in covered bonds

ESG-specific performance information can be used in the credit analysis of a covered bond. However, the lack of a common taxonomy, different definitions between countries and issuers, and inconsistent recording of relevant data points often prevent credit differentiation between standard and ESG-compliant collateral. Further, observed credit performance may implicitly reflect likely ESG benefits. For example, most jurisdictions already require new buildings to have high energy efficiency (particularly in Scandinavia), and this is already reflected in the credit quality of collateral.

The higher market liquidity of ESG-compliant bonds can become a relevant rating factor over time. Sizeable portions of ESG-compliant collateral in a cover pool attract stronger demand and a wider investor base. Advance rates for ESG-compliant collateral can thus be higher if spread differentials are sustainable. All things being equal, rating-supporting overcollateralisation for covered bonds with ESG-compliant collateral can thus be lower than those with non-ESG-compliant collateral.

Related criteria:

> Covered Bond Rating Methodology, July 2019
> Bank Rating Methodology, May 2020
> General Structured Finance Methodology, December 2019
> Methodology for Counterparty Risk in Structured Finance, July 2019

Related research:

> Covered Bond Outlook 2020, November 2019
> Scope's Covered Bond Quarterlies
> Other recent bank and covered bond research

Methodologies and research is freely available at www.scoperatings.com.

CHAPTER 5 - COVERED BOND STATISTICS

5.1 INTRODUCTION AND METHODOLOGY

By Joost Beaumont, Chairman of the ECBC Statistics & Data Working Group, ABN AMRO Bank N.V

The ECBC Statistics and Data Working Group has been collecting statistics on the outstanding volume and annual gross supply of covered bonds since 2003. The aim is to provide a complete and consistent set of numbers that can serve as a reliable source of data for interested parties, ranging from issuers to investors and regulators. The past eight years, Florian Eichert was responsible for the data collection, which justifies a big thank you.

The collection of statistics is a significant undertaking each year, which is only possible thanks to the cooperation of the Working Group members, in close cooperation with covered bond issuers and banking associations. One representative per country (the list of country representatives can be found in the list of author section at the beginning of the Fact Book) undertakes the initial data collection by approaching each issuer separately in most countries. These figures are then cross checked on the basis of publicly available data by a small number of Working Group members. The 2019 numbers were cross checked by Florian Eichert and Nofal Shezad from Crédit Agricole, Agustin Martin from BBVA, Karsten Rühlmann from LBBW, Maureen Schuller from ING, as well as myself. A special thanks also goes to Daniele Westig of the ECBC for all his support during the exercise.

GENERAL REMARKS ON THE 2019 STATISTICS

The aim of the ECBC statistics is to provide the most reliable data on the size and issuance of covered bonds globally. As such, it paints as realistic a picture of developments and trends in the covered bond market. In 2016, a breakdown by maturity structures was added to the statistics, while this year, we started to collect statistics on sustainable covered bonds, reflecting their rising importance. Having said that, we will not publish this data yet on a country-by-country level, but rather provide a comprehensive overview in this article. Besides including data on sustainable covered bonds, the methodology was kept unchanged for the 2019 data exercise.

As always, we continue to try to improve the quality of the data even for previous years. It is always possible that we miss a bond or still include a bond that has been repaid early (just think of retained covered bonds). Wherever we realize that there was a mistake in last year's data we amend the numbers. As a result of this, there could be some slight differences between this year's numbers and those published in previous years.

Before going into the actual statistics, please find below some general remarks about the figures, which should help to interpret them correctly:

> Covered bonds are divided into those denominated in euro, those in domestic currency (if not the euro), and those in a currency other than the euro and the domestic currency. The tables are all in euro, with the end-of-year exchange rates published by the European Central Bank used to convert all non-euro denominated figures into euro for the respective year. This adds an exchange rate component to the volumes of non-euro covered bond markets. However, the aim is to show volumes that allow a potential investor to get a feel for the relative size of the various countries rather than the funding volumes obtained by issuers, which typically are swapped back into their domestic currency at issuance.

> Another breakdown is the public placement of covered bonds, which splits the bonds by their size (EUR1bn and above, EUR500m – below 1bn, below EUR 500m). This is to provide a feeling for how large liquid benchmark markets are relative to the overall market size. For non-euro issuance we have introduced waivers, as for example USD500m is a benchmark size in USD markets but when converting it to EUR would fall into the EUR<500m bucket. The amounts relevant for the three buckets are as follows.

AUD: AUD1bn, AUD500m, AUD<500m
USD: USD1bn, USD500m, USD<500m
GBP: GBP500m, GBP250m, GBP<250m

> For the purpose of counting the number of issuers and of new issuers the following applies: 1) Issuers are entities with at least one outstanding covered bond at year-end. 2) Issuers with multiple programmes still only count as one. The only exception to this rule is French covered bonds. In case of France, the actual issuer is a specialised bank rather than the mother company. As a result, one mother company with two covered bond programmes also counts as two issuers as the issuance actually comes from two separate legal entities. 3) New issuers are entities with at least one outstanding covered bond at year-end, but with no outstanding covered bond at the prior year-end.

> Spain: Spain's covered bond statistics are based on the data provided by Spain's AIAF (Asociación de Intermediarios de Activos Financieros). We have complemented this with registered unlisted covered bonds from the ECBC Covered Bond Label Database. The breakdown into public and private placements as well as the breakdown into fix and floating coupons in Spain is entirely based on non-AIAF sources.

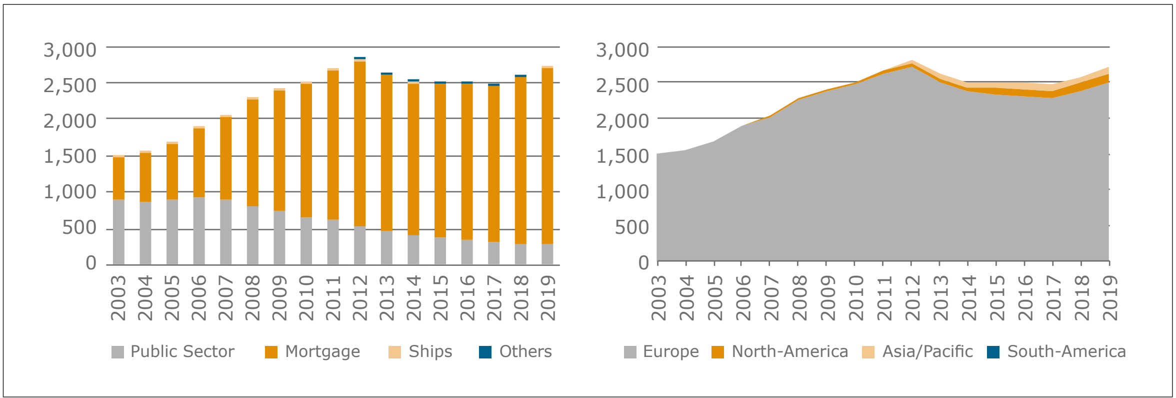
> Sweden: Sweden's covered bond statistics exclude retained transactions used for the purpose of accessing central bank liquidity, and include only converted bostadsobligationer (mortgage bonds) and säkerställda obligationer (covered bonds).

FACT BOOK VERSUS LABEL STATISTICS

Before turning to the results of the exercise, we like to highlight the relation between the fact book statistics and those published by the ECBC Covered Bond Label. The Label has become a widely used tool with 115 issuers disclosing information on 140 cover pools across 21 countries by 30 September 2020 and covers EUR 2tn of covered bonds, i.e. over 70% of the total outstanding market. When comparing the Covered Bonds listed in the Label statistics to those presented in the Fact Book there might be some discrepancies, especially regarding public-private classification in Denmark and Sweden.

The reason for these discrepancies is the different market structure those two countries have where bonds are frequently tapped, repurchased and then tapped again. The Label as well as the ECBC statistics definitions requires a bond to be listed as well as syndicated to be classified as public. Although Danish and Swedish covered bonds are listed, the way they are issued does not comply with the syndication requirement. In the ECBC statistics presented below we try to capture the "liquid" part of the market with our classifications and in justified cases can be more flexible than the Covered Bond Label database. We have therefore tried to eliminate the differences between both data sets wherever possible. But we have granted Denmark and Sweden an exception and consider bonds that for the ECBC label database are classified as private as public as long as we are talking about liquid benchmarks by these two countries' standards.

> Figure 1: Total outstanding covered bond per type (left) as well as region (right), EUR bn



Source: ABN AMRO

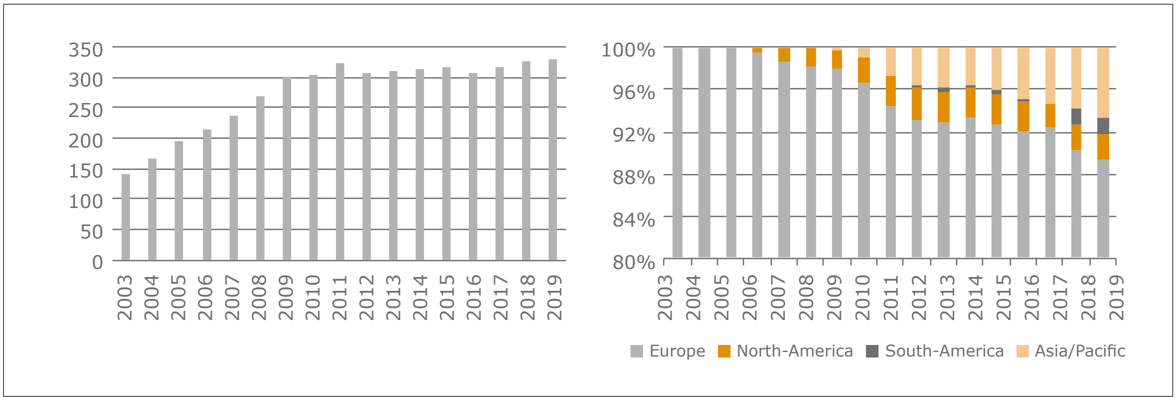
POSITIVE TREND CONTINUED IN 2019 – OUTSTANDING AMOUNT SECOND-HIGHEST EVER

The outstanding amount of covered bonds continued its positive trend in 2019. The market grew by 5.0% in 2019, following 4.7% growth in 2018. In fact, the EUR 2.7tn of outstanding covered bonds is the highest since 2012, and the second-highest ever. As such, covered bonds confirmed their role as a very important funding tool for banks across the globe.

The growth in the outstanding amount of covered bonds was largely due to an increase in mortgage backed bonds (+6.1%), as the volume of public sector backed covered bonds dropped by 3.8%. However, the latter was mainly due to large redemptions, given that issuance of public sector covered bonds actually increased substantially (see below). The outstanding amount of covered bonds backed by ship loans grew by 35.1% in 2019, although this market remains a niche, with only EUR 8.8bn outstanding. Overall, mortgage backed covered bonds have a share of 89.2% in the total amount outstanding, followed by public sector backed covered bonds (10.5%), and those backed by ships (0.3%).

A new record has been set in terms of the total number of covered bond issuers. At the end of 2019, there were 329 covered bond issuers, which was the highest number ever, comparing to 141 issuers in 2003 and 325 issuers in 2018. Overall, there have been over 300 covered bond issuers for 10 years now. Worth mentioning is that from the 12 new covered bond issuers 3 were from South Koreawhich joined the (domestic) covered bond market. Meanwhile, no new countries joined the covered bond market, although issuers from Slovakia issued their first benchmark sized covered bonds in 2019. As a result, the number of countries with outstanding covered bonds remained at 32 in 2019. Furthermore, there were 439 covered bond programmes at the end of the year, up from 436 in 2018, as some issuers have public sector as well as mortgage covered bond programmes while some are using multiple mortgage backed ones.

> Figure 2: Number of covered bond issuers (left) and their regional share (right)



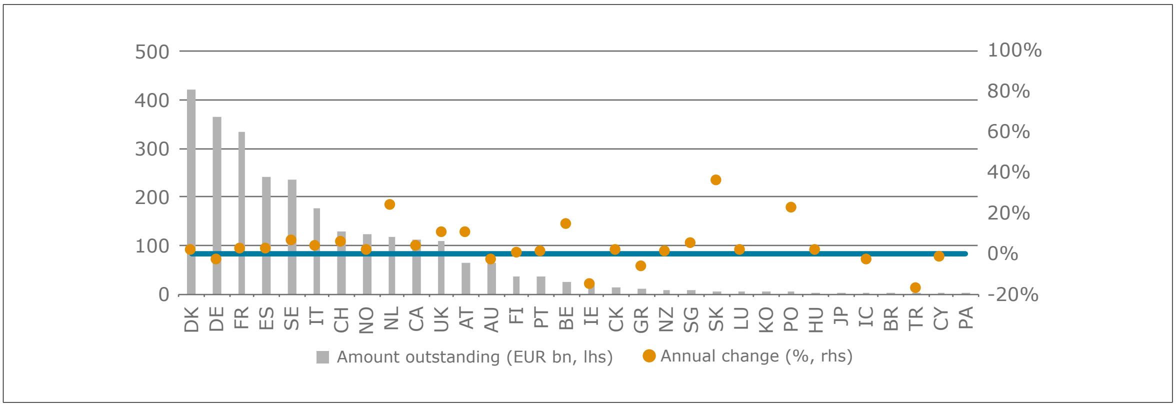
Source: ABN AMRO

A breakdown by country shows that only six out of the 32 countries saw a decline in the outstanding amount of covered bonds. This number was still lower than the average of 10 shrinking markets in the past ten years. The regional split also revealed the ongoing globalisation of covered bonds, as the share of outstanding covered bonds issued outside Europe increased to 7.7%, a 12bp increase compared to last year. Overall, Europe has a 92.3% share in the outstanding volumes, Asia/Pacific 3.5% and the Americas 4.3% (due to rounding the total is 100.1). In terms of annual growth, the figures are 4.9%, 6.3%, and 7%, respectively.

Zooming in on specific countries shows that the German market, which grew last year for the first time since the series began, shrank again last year (-1.5%), with a drop in outstanding public sector covered bonds being the main reason, as outstanding mortgage Pfandbriefe actually increased. Furthermore, there were 15 countries that grew by more than 5% in 2019, with Denmark, France, the Netherlands, Sweden and the UK markets growing with more than EUR 10bn each. Finally, 16 countries had the highest outstanding amounts at the end of 2019 since the start of the series ion 2003.

The top three country rank by size did not change in 2019, with Denmark (EUR 419bn) still taking the top spot, followed by Germany (EUR 364bn) and France (EUR 334bn). However, there were some changes within the top ten. Switzerland and Norway changed position, with Switzerland now ranking 7th and Norway 8th. Meanwhile, the Netherlands entered the top ten at place 9, gaining two spots compared to 2018. It pushed Canada from 9th to 10th place, while the UK dropped out of the top ten. Meanwhile, South Korea achieved the biggest improvement by moving up three ranks to 24th place.

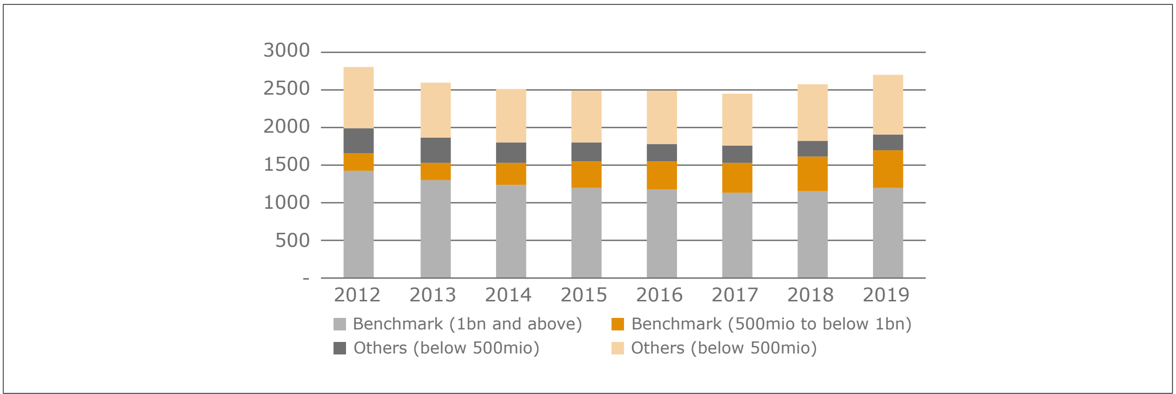
> Figure 3: Total amount of outstanding covered bonds by country and annual change



Source: ABN AMRO, please note that the annual change was exceeding 100% in Brazil, Japan, and South Korea

Turning to the breakdown by public and private placements shows that 29% of outstanding covered bonds was privately placed. The majority is publicly placed, with the market of benchmark bonds above EUR 500mn growing by EUR 91bn in absolute terms. Half of the increase stemmed from benchmark bonds with a size between EUR 500 and below EUR 1bn, with the other half being benchmark bonds with a size of EUR 1bn and above. However, the percentage growth was largest in the bucket EUR 500mn – below EUR 1bn, continuing the trend seen in recent years.

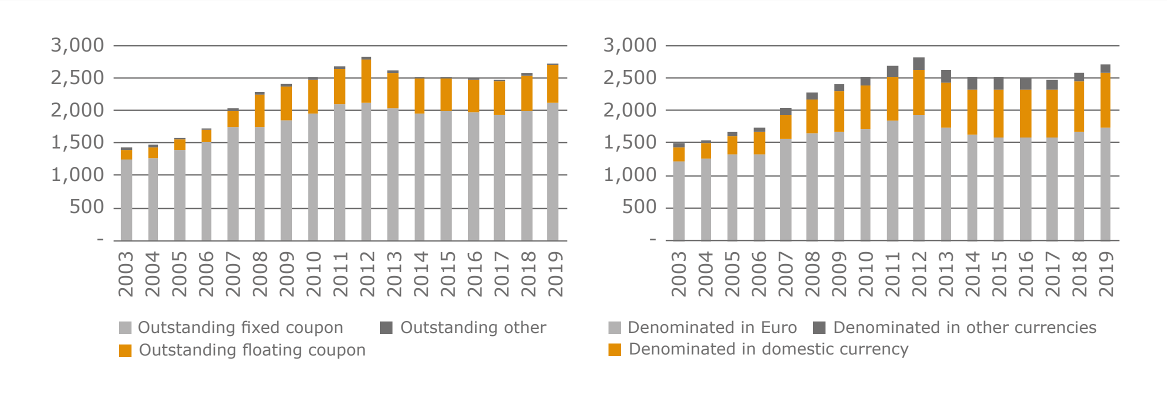
> Figure 4: Outstanding covered bonds by issue type (EUR bn)



Source: ABN AMRO

The breakdown of outstanding covered bonds by coupon type as well as by currency type remained fairly stable in 2019. The fixed rate coupon remained the standard (78%), reflecting that almost all publicly placed benchmark covered bonds in EUR have a fixed coupon. Floating rate covered bonds kept a share of 21% last year. Floaters are mainly used for retained covered bonds as well as in, for instance, the UK market where GBP deals largely have a floating coupon. Meanwhile, the euro remains the dominant currency (share of 64% in the total), while the market of EUR-denominated covered bonds grew by EUR 66bn in 2019. The amount of outstanding covered bonds denominated in the domestic currency also increased substantially (by EUR56bn), taking its share to 31% of total outstanding covered bonds.

> Figure 5: Outstanding covered bonds by coupon type (left) and currency (right), EUR bn

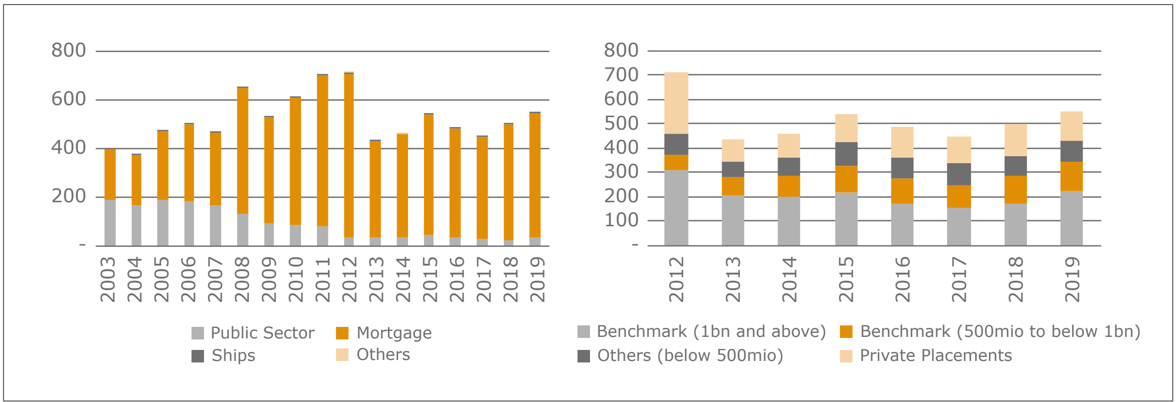


Source: ABN AMRO

NEW ISSUANCE ALSO KEPT POSITIVE MOMENTUM IN 2019

New issuance of covered bonds kept its positive momentum, rising by the third year in a row. New issuance reached EUR 546.4bn in 2019, which was again above the EUR 500bn mark of covered bonds that were issued in 2018. Overall, issuance grew by 9% last year, versus 12% in 2018. Issuance of all types of covered bonds increased in 2019, although mortgage backed covered bonds remained by far the dominant type. Issuance of mortgage backed covered bonds rose by EUR 36bn, while their share in total new supply was 93%. Public sector covered bond issuance increased by EUR 8bn (share of 6% in total), while issuance of ship covered bonds even grew by EUR 2bn, taking their share to 1%.

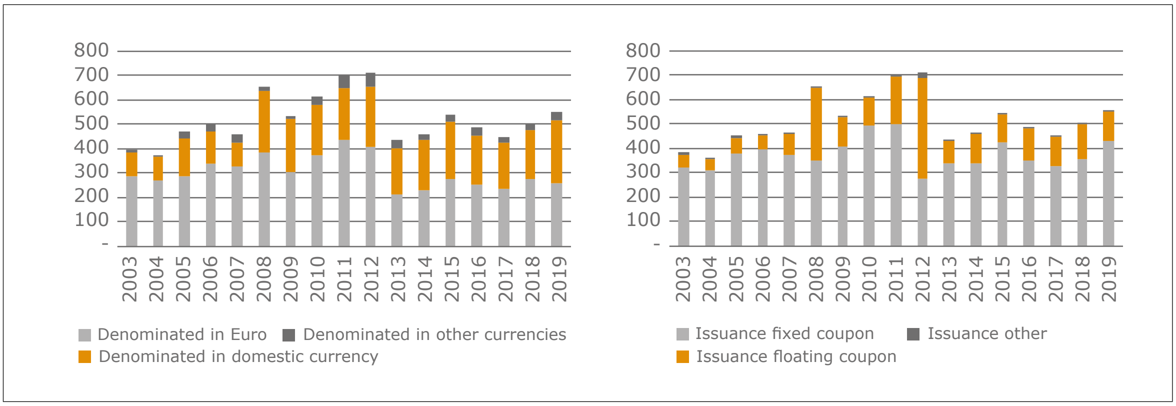
> Figure 6: New issuance of covered bonds by type (left) and size (right), EUR bn



Source: ABN AMRO

A breakdown by other categories showed that , private placement market saw less issuance in 2019 compared to 2018, with public placements rising strongly. Interesting to note is that covered bonds with benchmark size of EUR 1bn of more posted a very strong increase of EUR 53bn. This was mainly due to Denmark, where issuance picked up the most (see below), strengthening its position as largest covered bond market. Most Danish covered bonds fall in the EUR 1bn and above category. Meanwhile, Danish covered bond issuance was mainly in its domestic currency, lifting this category as well. In fact, issuance of euro-denominated covered bonds declined by 6% in 2019, with the share of domestic and euro currency issuance roughly equal. The EUR 15bn drop in EUR issuance was largely due to less issuance from Italy. Finally, issuance of fixed coupon covered bonds increased by EUR 73bn last year, whereas that of floating coupons and other coupon types declined.

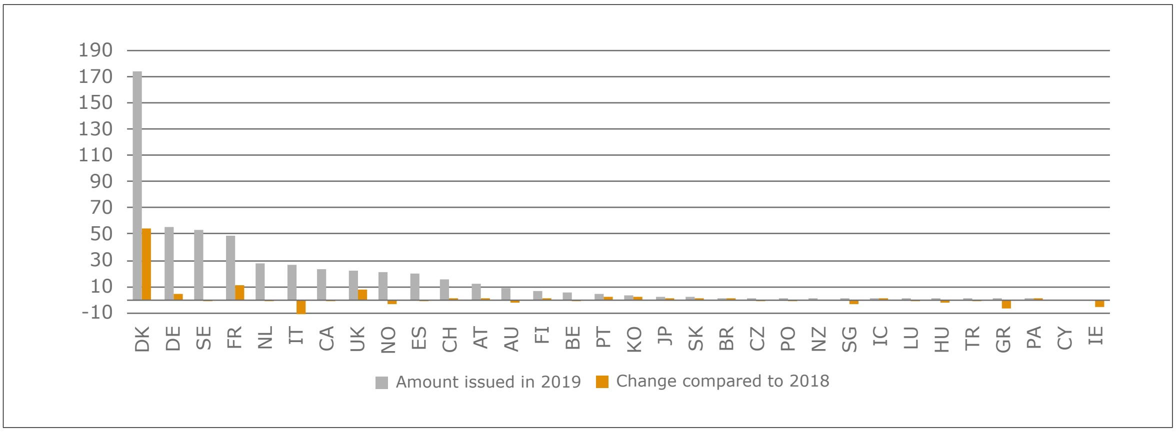
> Figure 7: Issuance of covered bonds by currency (left) and coupon type (right), EUR bn



Source: ABN AMRO

As said, Denmark was again the country leading the new issue table. Its issuance volume also posted the strongest grow (+EUR 54bn). Germany took the second place with EUR 55bn of issuance (+5bn versus 2018), while Sweden moved from second to the third place (EUR 53bn), closely followed by France (EUR 49bn), which saw annual issuance volumes rise by EUR 11bn (second after Denmark). At the other side of the side of the spectrum, we find Italy, of which new supply dropped by EUR 18bn compared to 2018. The country dropped to the sixth place, still having issued EUR 27bn.

> Figure 8: Covered bond new issuance by country as well as change versus 2018



Source: ABN AMRO

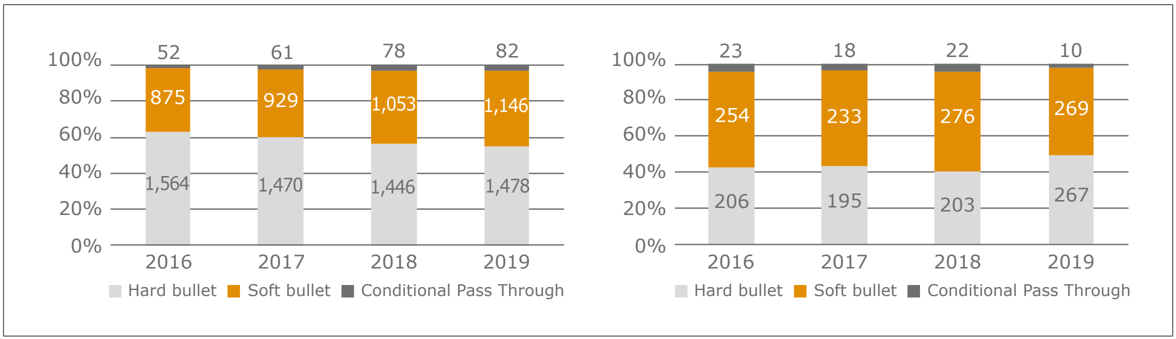
DEVELOPMENTS BY MATURITY STRUCTURE

Maturity structures have been high on the covered bond agenda for years, which was also the reason to add the maturity breakdown the statistics in 2016. The discussion on maturity structures, and the extension triggers more specifically, is a hot topic surrounding the implementation of the new EU covered bond legislation in national laws. Furthermore, the ECB has excluded conditional pass-through covered bonds from its purchase programmes.

A breakdown of the outstanding amounts at the end of 2019 show that hard bullet covered bonds lost some further market share to soft bullet structures. Hard bullet covered bonds made up 55% of the total amount of outstanding covered bonds at the end of 2019, while this was 63% in 2016 when this data was collected for the first time. The share of soft bullet covered bonds has risen from 35% in 2016 to 42% in 2019, reflecting that the soft bullet structure are becoming the more dominant structure. The share of conditional pass-through covered bonds was 3% last year, equal to its share in 2018.

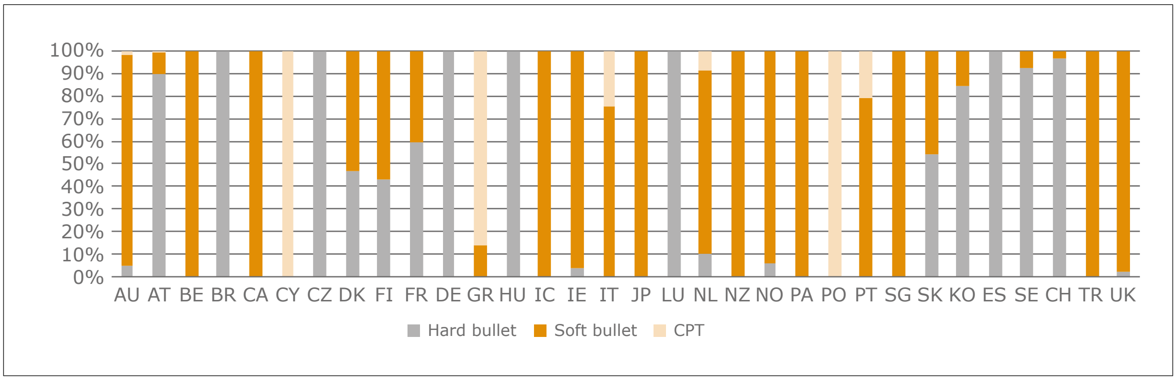
The new issuance data show actually a strong rise in issuance of hard bullet covered bonds in 2019, but the EUR 65bn increase was, once again, mainly related to the large pickup in Danish covered bond supply. Indeed, Danish issuance of hard bullet covered bonds jumped by EUR 62bn, while that of soft bullet covered bonds dropped by EUR 8bn. Overall issuance of soft bullet covered bonds (was also negatively impacted by slowing issuance from Italy and Ireland. Still, soft bullet covered bonds had a 49% share of total new issuance, equal to that of hard bullet covered bonds. The share of conditional pass-through covered bonds was 2% last year (2018: 4%), reflecting that it remains a niche product.

> Figure 9: Breakdown of covered bonds outstanding (left) and new issuance by maturity type (%, labels are EUR bn)



Source: ABN AMRO

> Figure 10: Outstanding amount of covered bonds by maturity profile and country (%)

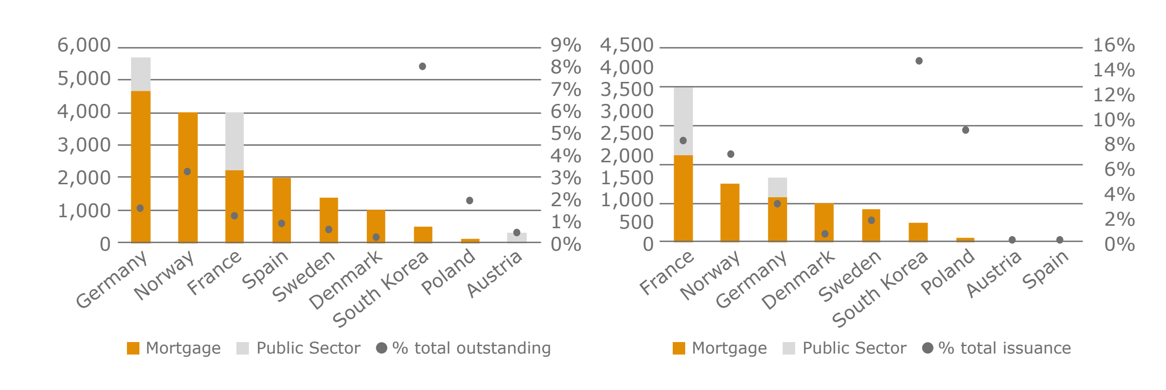


Source: ABN AMRO

SUSTAINABLE COVERED BOND GROWING BUT STILL A NICHE

The market for sustainable covered bonds, i.e. covered bonds that have a green or social angle, has been steadily growing since the first sustainable covered bond was issued in 2015. As a result of their rising importance, we have decided to start collecting data about sustainable covered bonds this year. As said, the data will not yet be added to the statistical annex, given that the market is still in its infancies, with the total amount outstanding being less than 1% of the total covered bond market. Germany, Norway and France are the countries with the largest outstanding amounts of sustainable covered bonds, while they also issued most of these in 2019. Furthermore, the data show that 84% of outstanding sustainable covered bonds are backed by mortgages, while 16% is backed by public sector loans. Looking forward, we expect that the share of green covered bonds is likely to rise further, as sustainability is likely to become an increasingly dominant factor in financial markets.

> Figure 11: Breakdown of sustainable covered bonds outstanding (left) and new issuance (right) (EUR bn and % market share)



Source: ABN AMRO

DEVELOPMENTS IN 2020

This year, new issuance of covered bonds have slowed down compared to previous years, following the outbreak of the Covid-19 pandemic as well as central bank policy measures taken to stem the damage from the crisis. New issuance of euro benchmark covered bonds started 2020 at a solid footing, although issuance volumes were already lower in the first quarter than in 2019. The outbreak of the pandemic lowered issuance volumes even more. Having said that, covered bonds also proved their crisis-proof nature, providing funding to banks during the crisis, as this was hardly possible for riskier ranks of bank debt. Meanwhile, the GBP as well as the USD covered bond markets also made healthy starts to the year.

Issuance of euro benchmarks has dropped by almost 30% so far this year, which is largely due to central banks that have offered very attractive funding for banks in their response to the crisis. The ECB made, for instance, the terms of the TLTRO-3 even more attractive, resulting a very large take-up in the June operation. This was already signalled by the fact that retained issuance of covered bonds rose strongly during this year (which will be interesting to watch in the 2020 statistics exercise). Overall, the TLTRO-3 operation has clearly reduced 2020 covered bond supply, while large deposit inflows also have lowered bank funding needs. New issuance has picked up somewhat after a very quiet summer period, but it is unlikely to reach volumes seen in the past two years.

On a positive note, we have seen more issuance of sustainable euro benchmark covered bonds year-to-date than during 2019 as whole. The year has also welcomed the first covered bond of which the proceeds will be used to finance public loans related to Covid-19. As such, this market is set to grow further.

5.2 STATISTICS

5.2.1 TOTAL

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total CB Outstanding										
Public Sector	653,022	616,551	543,977	464,761	408,617	371,530	335,525	312,458	294,007	282,709
Mortgage	1,836,449	2,041,648	2,254,388	2,131,211	2,088,468	2,116,116	2,146,478	2,140,271	2,275,873	2,414,033
Ships	14,527	12,640	13,571	11,306	9,824	10,379	8,295	7,367	6,524	8,814
Others	-	-	506	506	1,006	1,006	1,006	505	505	-
Total Outstanding	2,503,998	2,670,839	2,812,442	2,607,784	2,507,915	2,499,031	2,491,304	2,460,601	2,576,909	2,705,556
Public Placements										
Benchmark (1bn and above)	n.a.	n.a.	1,438,710	1,302,543	1,239,657	1,203,034	1,174,136	1,139,513	1,163,672	1,209,209
Benchmark (500mio to below 1bn)	n.a.	n.a.	218,255	232,511	289,337	356,990	385,000	395,844	446,008	491,938
Others (below 500Mio)	n.a.	n.a.	338,884	335,427	272,288	244,317	231,165	219,442	223,951	217,875
Private Placements	n.a.	n.a.	816,593	737,303	706,634	694,688	701,003	705,802	743,279	786,533
Total	2,503,998	2,670,840	2,812,441	2,607,783	2,507,916	2,499,030	2,491,304	2,460,601	2,576,911	2,705,556
Denominated in EURO	1,703,410	1,834,407	1,928,952	1,743,184	1,630,760	1,592,989	1,580,921	1,578,519	1,673,721	1,739,785
Denominated in domestic currency	674,389	673,074	690,151	671,345	682,550	719,529	740,994	744,982	776,216	832,575
Denominated in other currencies	126,198	163,357	193,337	193,254	194,606	186,513	169,388	137,099	126,973	133,196
Total	2,503,997	2,670,838	2,812,441	2,607,784	2,507,915	2,499,031	2,491,304	2,460,600	2,576,911	2,705,556
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,563,697	1,470,119	1,446,146	1,477,693
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	875,176	929,033	1,052,925	1,146,333
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	52,431	61,448	77,839	81,530
Total	2,503,998	2,670,840	2,812,441	2,607,783	2,507,916	2,499,030	2,491,304	2,460,600	2,576,911	2,705,556
Outstanding fixed coupon	1,955,481	2,096,016	2,121,714	2,022,352	1,944,703	1,985,143	1,967,177	1,926,765	1,987,158	2,118,523
Outstanding floating coupon	507,882	542,469	650,616	548,442	534,912	493,133	496,811	515,098	545,478	568,796
Outstanding other	40,635	32,354	40,111	36,989	28,301	20,755	27,316	18,738	44,276	18,238
Total	2,503,997	2,670,838	2,812,441	2,607,783	2,507,916	2,499,031	2,491,304	2,460,601	2,576,913	2,705,556
Number of Programmes	n.a.	n.a.	n.a.	412	422	435	424	427	436	439
Number of Issuers	303	322	308	311	314	317	308	318	325	329

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total CB Issuance										
Public Sector	84,018	82,711	36,495	36,096	34,537	43,486	33,554	30,510	23,841	32,179
Mortgage	522,919	612,290	666,391	395,348	421,705	493,214	449,384	412,580	475,057	510,699
Ships	3,325	1,016	4,643	761	1,319	3,163	883	2,524	1,193	3,473
Others	-	-	506	-	500	-	-	-	-	-
Total Issuance	610,262	696,017	708,034	432,205	458,061	539,863	483,821	445,614	500,092	546,351
Public Placements										
Benchmark (1bn and above)	n.a.	n.a.	308,776	204,900	202,950	217,361	173,759	153,174	171,719	224,614
Benchmark (500mio to below 1bn)	n.a.	n.a.	62,773	74,031	81,969	110,252	101,371	93,021	114,846	118,650
Others (below 500Mio)	n.a.	n.a.	84,084	62,678	76,357	96,787	84,188	91,636	79,838	86,280
Private Placements	n.a.	n.a.	252,401	90,594	94,838	115,465	124,505	107,783	133,689	116,806
Total	610,262	696,017	708,034	432,204	456,114	539,864	483,822	445,614	500,092	546,351
Denominated in EURO	373,730	437,190	405,271	213,868	227,734	275,003	252,062	235,355	271,813	256,012
Denominated in domestic currency	200,886	207,701	248,382	188,399	207,133	232,050	202,150	186,637	201,570	259,650
Denominated in other currencies	35,646	51,125	54,381	29,937	23,193	32,811	29,609	23,622	26,707	30,690
Total	610,262	696,016	708,034	432,205	458,060	539,864	483,821	445,614	500,091	546,352
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	206,369	194,598	202,820	267,500
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	254,023	233,403	275,583	268,632
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,429	17,613	21,688	10,219
Total	610,262	696,016	708,034	432,205	458,060	539,864	483,821	445,614	500,092	546,351
Issuance fixed coupon	492,585	497,337	435,709	339,953	339,104	421,494	349,268	323,802	353,880	426,564
Issuance floating coupon	115,329	195,736	271,091	91,461	117,878	117,198	133,323	120,841	144,230	119,365
Issuance other	2,348	2,943	1,234	790	1,079	1,171	1,231	971	1,980	422
Total	610,262	696,016	708,034	432,205	458,060	539,864	483,821	445,614	500,091	546,352
Number of New Issuers	27	23	20	8	9	14	8	14	16	12

Note: Please note that a few changes were undertaken in 2013 to the way data is grouped and shown. These changes impact the figures from 2012 onwards. A number of them, especially the size and placement type category changes, are substantial to how data is displayed. Backdating data to fit the new categories and maintaining consistent data history for previous years is a major challenge. Therefore, there is a full dataset going back to 2003 for some countries while there is only data from 2012 going forward for others. Consequently, on the aggregate covered bond market level, only data for the new categorisation for 2012 and 2013 is shown. The old categories together with the historic data can be found on the 2012 edition of the ECBC Fact Book. For further information on these changes, please see the Statistics introduction of the Fact Book.

Please note that the statistics contain "n.a." when data is not available, "-" when the value is zero and "*" indicates that the figure in question does not correspond to the sum of the above sub-components due to the unavailability in some countries of these breakdowns. In addition, please note that totals are calculated using available data only, and that any fluctuations of values in this table over time may be partly due to one or more countries' data becoming available or unavailable from one year to the next. In order to be sure about what causes changes in the totals, please see the individual country statistics. Finally, please also note that any small difference between Totals in the same year is due to rounding.

Source: EMF-ECBC

5.2.2 TOTAL 2019 STATISTICS BY TYPE OF ASSETS

COVERED BONDS OUTSTANDING 2019 in EUR million						
	Public Sector	Mortgage	Ships	Others	Mixed Assets	TOTAL
Australia	-	64,630	-	-	-	64,630
Austria	16,574	49,124	-	-	-	65,699
Belgium	2,461	23,637	-	-	-	26,098
Brazil	-	2,487	-	-	-	2,487
Canada	-	113,016	-	-	-	113,016
Cyprus	-	650	-	-	-	650
Czech Republic	-	14,168	-	-	-	14,168
Denmark	10,864	402,432	6,090	-	-	419,386
Finland	-	37,774	-	-	-	37,774
France	65,079	209,294	-	-	59,870	334,243
Germany	121,849	239,570	2,724	-	-	364,143
Greece	-	13,190	-	-	-	13,190
Hungary	-	3,868	-	-	-	3,868
Iceland	-	3,071	-	-	-	3,071
Ireland	708	19,337	-	-	-	20,044
Italy	4,925	172,728	-	-	-	177,653
Japan	-	3,585	-	-	-	3,585
Latvia	-	-	-	-	-	-
Luxembourg	6,290	-	-	-	-	6,290
The Netherlands	-	118,969	-	-	-	118,969
New Zealand	-	10,018	-	-	-	10,018
Norway	1,886	123,023	-	-	-	124,909
Panama	-	36	-	-	-	36
Poland	71	6,111	-	-	-	6,181
Portugal	600	36,600	-	-	-	37,200
Singapore	-	8,990	-	-	-	8,990
Slovakia	-	6,658	-	-	-	6,658
South Korea	-	6,183	-	-	-	6,183
Spain	20,763	220,767	-	-	-	241,530
Sweden	-	235,111	-	-	-	235,111
Switzerland	-	128,248	-	-	-	128,248
Turkey	-	1,967	-	-	-	1,967
United Kingdom	705	108,857	-	-	-	109,562
United States	-	-	-	-	-	-
Total	**252,774**	**2,384,098**	**8,814**	**-**	**59,870**	**2,705,556**

COVERED BONDS ISSUANCE 2019 in EUR million						
	Public Sector	Mortgage	Ships	Others	Mixed Assets	TOTAL
Australia	-	9,511	-	-	-	9,511
Austria	1,833	11,228	-	-	-	13,061
Belgium	500	5,000	-	-	-	5,500
Brazil	-	2,040	-	-	-	2,040
Canada	-	23,647	-	-	-	23,647
Cyprus	-	-	-	-	-	-
Czech Republic	-	1,516	-	-	-	1,516
Denmark	6,377	165,208	1,713	-	-	173,298
Finland	-	6,650	-	-	-	6,650
France	8,800	37,050	-	-	3,000	48,850
Germany	11,236	41,973	1,760	-	-	54,969
Greece	-	200	-	-	-	200
Hungary	-	487	-	-	-	487
Iceland	-	788	-	-	-	788
Ireland	-	-	-	-	-	-
Italy	-	27,000	-	-	-	27,000
Japan	-	2,585	-	-	-	2,585
Latvia	-	-	-	-	-	-
Luxembourg	525	-	-	-	-	525
The Netherlands	-	28,388	-	-	-	28,388
New Zealand	-	1,250	-	-	-	1,250
Norway	608	20,766	-	-	-	21,374
Panama	-	26	-	-	-	26
Poland	-	1,284	-	-	-	1,284
Portugal	-	4,800	-	-	-	4,800
Singapore	-	914	-	-	-	914
Slovakia	-	2,250	-	-	-	2,250
South Korea	-	3,369	-	-	-	3,369
Spain	800	19,435	-	-	-	20,235
Sweden	-	53,258	-	-	-	53,258
Switzerland	-	15,360	-	-	-	15,360
Turkey	-	256	-	-	-	256
United Kingdom	22,959	-	-	-	-	22,959
United States	-	-	-	-	-	-
Total	**53,638**	**486,240**	**3,473**	**-**	**3,000**	**546,351**

Source: EMF-ECBC

5.2.3 AUSTRALIA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	-	-	-	-	-	-	-	-	-
Mortgage	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630
Ships	n.a.	-	-	-	-	-	-	-	-	-
Others	n.a.	-	-	-	-	-	-	-	-	-
Total Outstanding	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630
Public Placement										
Benchmark (1bn and above)	n.a.	-	15,160	18,160	24,846	27,005	46,350	38,911	41,307	35,795
Benchmark (500mio - below 1bn)	n.a.	-	3,061	7,285	8,945	11,151	6,887	8,587	7,341	12,023
Others (below 500Mio)	n.a.	949	3,529	3,832	4,241	3,756	303	559	599	2,229
Private Placement	n.a.	1,530	14,212	22,554	26,710	27,400	17,256	16,504	16,609	14,584
Total	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,561	65,855	64,630
Denominated in EURO	n.a.	-	10,243	14,355	21,415	26,119	28,814	31,199	35,935	37,710
Denominated in domestic currency	n.a.	-	8,427	9,677	10,694	10,728	10,146	6,344	7,712	7,650
Denominated in other currencies	n.a.	2,478	17,293	27,799	32,633	32,465	31,836	26,459	22,208	19,270
Total	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630
Hard Bullet	n.a.	2,478	30,423	30,772	31,897	30,849	17,544	13,032	7,678	3,139
Soft Bullet	n.a.	-	5,539	21,058	32,844	38,464	53,252	50,469	58,178	60,491
Conditional Pass Through	n.a.	-	-	-	-	-	-	500	500	1,000
Total	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,001	66,355	64,630
Outstanding fixed coupon	n.a.	2,478	28,940	43,309	55,503	61,902	63,995	58,777	60,836	59,142
Outstanding floating coupon	n.a.	-	7,022	8,522	9,238	7,410	6,801	5,224	5,019	5,488
Outstanding other	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	2,478	35,962	51,831	64,741	69,312	70,796	64,001	65,855	64,630
Number of Programmes	n.a.	n.a.	5	5	5	5	6	7	8	8
Number of Issuers	n.a.	3	5	5	5	5	6	7	8	8

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	-	-	-	-	-	-	-	-	-
Mortgage	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
Ships	n.a.	-	-	-	-	-	-	-	-	-
Others	n.a.	-	-	-	-	-	-	-	-	-
Total Issuance	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
Public Placement										
Benchmark (1bn and above)	n.a.	-	15,160	3,000	6,686	3,250	5,392	2,814	7,155	6,431
Benchmark (500mio - below 1bn)	n.a.	-	3,061	4,224	1,660	2,790	3,026	2,144	500	1,554
Others (below 500Mio)	n.a.	949	2,581	303	409	1,090	-	-	-	154
Private Placement	n.a.	1,530	12,682	8,342	4,499	2,873	2,965	2,393	3,420	1,372
Total	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
Denominated in EURO	n.a.	-	10,243	4,112	7,060	4,705	4,445	4,885	5,736	4,955
Denominated in domestic currency	n.a.	-	8,427	1,250	1,359	34	2,227	1,473	2,004	524
Denominated in other currencies	n.a.	2,478	14,814	10,506	4,834	5,265	4,710	993	3,335	4,032
Total	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
Hard Bullet	n.a.	2,478	27,945	349	1,125	2,250	100	-	-	-
Soft Bullet	n.a.	-	5,539	15,519	12,128	7,754	11,282	6,851	10,995	9,011
Conditional Pass Through	n.a.	-	-	-	-	-	-	500	-	500
Total	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	10,995	9,511
Issuance fixed coupon	n.a.	2,478	26,462	14,369	12,195	9,245	9,453	6,255	9,466	8,518
Issuance floating coupon	n.a.	-	7,022	1,500	1,058	759	1,929	1,096	1,609	993
Issuance other	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	2,478	33,484	15,868	13,253	10,004	11,382	7,351	11,075	9,511
Number of New Issuers	n.a.	3	2	-	-	-	1	1	1	-

Source: Macquarie Group, ECBC

5.2.4 AUSTRIA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	19,555	25,116	25,831	23,682	19,279	17,620	17,155	17,590	16,926	16,574
Mortgage	7,645	17,174	17,010	18,854	22,450	27,345	30,894	31,915	42,001	49,124
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	27,200	42,290	42,841	42,536	41,729	44,965	48,049	49,505	58,928	65,699
Public Placement										
Benchmark (1bn and above)	n.a.	6,000	7,087	5,000	3,000	4,087	3,000	3,000	4,000	4,000
Benchmark (500mio - below 1bn)	n.a.	9,915	11,328	12,870	13,050	14,550	16,800	20,050	23,100	27,192
Others (below 500Mio)	n.a.	5,821	5,897	87	-	600	600	1,003	1,761	2,695
Private Placement	n.a.	20,554	18,529	24,579	25,679	25,728	27,649	25,452	30,067	31,812
Total	27,200	42,290	42,841	42,536	41,729	44,965	48,049	49,505	58,928	65,699
Denominated in EURO	21,510	37,576	39,068	39,184	39,287	43,065	46,119	48,444	57,742	64,766
Denominated in domestic currency	-	-	-	-	-	-	-	-	1	-
Denominated in other currencies	5,690	4,714	3,773	3,352	2,442	1,900	1,930	1,061	1,185	932
Total	27,200	42,290	42,841	42,536	41,729	44,965	48,049	49,505	58,928	65,699
Hard Bullet	27,200	42,290	42,841	42,536	41,729	44,715	47,769	49,315	55,848	59,074
Soft Bullet	-	-	-	-	-	-	-	-	2,800	6,161
Conditional Pass Through	-	-	-	-	-	250	280	190	280	463
Total	27,200	42,290	42,841	42,536	41,729	44,965	48,049	49,505	58,928	65,699
Outstanding fixed coupon	17,900	32,275	32,696	34,793	29,680	31,611	47,769	33,794	40,256	48,777
Outstanding floating coupon	6,600	7,650	7,750	7,342	12,049	12,720	-	15,200	17,169	16,708
Outstanding other	2,700	2,364	2,395	402	-	634	280	511	1,503	214
Total	27,200	42,290	42,841	42,536	41,729	44,965	48,049	49,505	58,928	65,699
Number of Programmes	n.a.	n.a.	n.a.	39	45	48	48	48	49	46
Number of Issuers	23	24	26	27	28	27	26	26	27	27

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	8,125	7,114	6,882	3,373	5,146	3,177	2,355	3,115	2,040	1,833
Mortgage	3,600	3,664	3,805	6,093	7,111	5,457	7,181	3,165	11,007	11,228
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	11,725	10,778	10,687	9,466	12,257	8,634	9,536	6,280	13,047	13,061
Public Placement										
Benchmark (1bn and above)	n.a.	3,000	1,000	-	-	-	-	-	1,000	-
Benchmark (500mio - below 1bn)	n.a.	2,750	2,500	3,800	3,000	4,000	2,750	2,750	5,000	7,000
Others (below 500Mio)	n.a.	321	318	-	-	327	390	550	605	315
Private Placement	n.a.	4,707	6,869	5,666	9,256	4,308	6,396	2,980	6,441	5,746
Total	11,725	10,778	10,687	9,466	12,256	8,635	9,536	6,280	13,047	13,061
Denominated in EURO	10,725	10,008	10,447	9,466	12,256	8,635	9,536	6,280	12,935	13,061
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	1,000	770	240	-	-	-	-	-	112	-
Total	11,725	10,778	10,687	9,466	12,256	8,635	9,536	6,280	13,047	13,061
Hard Bullet	11,725	10,778	10,687	9,466	12,256	8,385	9,506	6,280	10,207	9,911
Soft Bullet	-	-	-	-	-	-	-	-	2,800	3,110
Conditional Pass Through	-	-	-	-	-	250	30	-	40	40
Total	11,725	10,778	10,687	9,466	12,256	8,635	9,536	6,280	13,047	13,061
Issuance fixed coupon	10,200	5,922	8,155	6,609	4,671	5,317	9,506	4,164	8,481	8,279
Issuance floating coupon	525	4,561	2,201	2,812	7,346	3,304	-	2,083	4,264	4,782
Issuance other	1,000	295	331	45	239	13	30	34	301	-
Total	11,725	10,778	10,687	9,466	12,256	8,634	9,536	6,280	13,047	13,061
Number of New Issuers	2	1	2	1	1	1	-	-	1	1

5.2.5 BELGIUM

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	-	-	1,750	1,800	2,300	2,300	2,461	2,461
Mortgage	n.a.	n.a.	2,590	8,188	10,575	15,105	16,700	15,250	20,092	23,637
Ships	n.a.	n.a.	-	-	-	-	-	-	-	-
Others	n.a.	n.a.	-	-	-	-	-	-	-	-
Total Outstanding	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	2,500	4,500	5,750	9,750	11,000	8,500	9,750	9,750
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	2,500	5,175	5,175	5,925	6,925	10,175	8,825
Others (below 500Mio)	n.a.	n.a.	-	-	-	-	-	-	-	-
Private Placement	n.a.	n.a.	90	1,188	1,400	1,980	2,075	2,125	2,628	7,523
Total	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Denominated in EURO	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Denominated in domestic currency	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Hard Bullet	n.a.	n.a.	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Conditional Pass Through	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Outstanding fixed coupon	n.a.	n.a.	2,590	8,188	12,185	16,765	18,860	17,410	22,413	25,998
Outstanding floating coupon	n.a.	n.a.	-	-	140	140	140	140	140	100
Outstanding other	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	8,188	12,325	16,905	19,000	17,550	22,553	26,098
Number of Programmes	n.a.	n.a.	2	3	4	4	5	5	5	6
Number of Issuers	n.a.	n.a.	2	3	3	3	4	4	4	4

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	-	-	1,750	50	500	-	161	500
Mortgage	n.a.	n.a.	2,590	5,598	2,387	4,530	2,345	1,050	5,842	5,000
Ships	n.a.	n.a.	-	-	-	-	-	-	-	-
Others	n.a.	n.a.	-	-	-	-	-	-	-	-
Total Issuance	n.a.	n.a.	2,590	5,598	4,137	4,580	2,845	1,050	6,003	5,500
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	2,500	2,000	1,250	4,000	1,250	-	2,250	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	2,500	2,675	-	1,500	1,000	3,250	500
Others (below 500Mio)	n.a.	n.a.	-	-	-	-	-	-	-	-
Private Placement	n.a.	n.a.	90	1,098	212	580	95	50	503	5,000
Total	n.a.	n.a.	2,590	5,598	4,137	4,580	2,845	1,050	6,003	5,500
Denominated in EURO	n.a.	n.a.	2,590	5,598	4,137	4,580	2,845	1,050	6,003	5,500
Denominated in domestic currency	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	5,598	4,137	4,580	2,845	1,050	6,003	5,500
Hard Bullet	n.a.	n.a.	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	n.a.	2,590	5,598	3,997	4,580	2,845	1,050	6,003	5,500
Conditional Pass Through	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	5,598	3,997	4,580	2,845	1,050	6,003	5,500
Issuance fixed coupon	n.a.	n.a.	2,590	5,598	3,997	4,580	2,845	1,050	6,003	5,500
Issuance floating coupon	n.a.	n.a.	-	-	140	-	-	-	-	-
Issuance other	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	2,590	5,598	4,137	4,580	2,845	1,050	6,003	5,500
Number of New Issuers	n.a.	n.a.	2	1	-	-	1	-	-	-

5.2.6 BRAZIL

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total Outstanding	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Outstanding fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Outstanding floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Outstanding other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,487
Number of Programmes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	4
Number of Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	4

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total Issuance	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Issuance fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Issuance floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Issuance other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	454	2,040
Number of New Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4	-

5.2.7 CANADA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Public Placement										
Benchmark (1bn and above)	14,600	34,009	43,495	45,372	59,481	76,749	84,273	77,075	88,943	93,697
Benchmark (500mio - below 1bn)	2,230	3,653	4,130	1,205	4,877	7,538	6,328	6,478	6,307	7,182
Others (below 500Mio)	1,173	948	1,496	3,882	478	571	1,728	1,183	1,899	553
Private Placement	-	-	-	-	-	901	8,500	8,360	10,347	11,584
Total	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Denominated in EURO	4,250	4,250	2,576	6,750	19,250	34,401	47,262	50,012	56,662	57,662
Denominated in domestic currency	1,201	2,043	2,055	1,840	1,387	2,183	5,498	5,187	6,376	6,302
Denominated in other currencies	12,552	32,317	44,490	41,869	44,200	49,175	48,070	37,897	44,458	49,051
Total	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,496	113,016
Outstanding fixed coupon	17,763	38,610	48,743	48,962	60,588	76,427	89,939	82,362	93,478	96,936
Outstanding floating coupon	240	-	378	1,497	4,249	9,332	10,891	10,734	14,019	16,080
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	18,003	38,610	49,121	50,459	64,836	85,759	100,830	93,095	107,497	113,016
Number of Programmes	5	7	7	9	13	13	12	8	8	8
Number of Issuers	5	7	7	7	7	7	7	7	8	8

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,484	23,647
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,484	23,647
Public Placement										
Benchmark (1bn and above)	10,290	18,544	11,937	9,030	15,851	18,246	20,569	11,167	18,390	19,560
Benchmark (500mio - below 1bn)	2,058	1,433	834	324	1,155	2,051	2,850	648	3,352	2,000
Others (below 500Mio)	299	-	166	-	321	2,515	701	-	222	-
Private Placement	-	-	-	-	-	6,475	4,028	625	2,420	2,088
Total	12,648	19,977	12,937	9,354	17,328	29,287	28,148	12,441	24,384	23,647
Denominated in EURO	-	-	-	5,500	12,500	15,151	12,861	4,000	12,750	11,750
Denominated in domestic currency	638	832	-	-	-	1,455	3,172	-	1,762	856
Denominated in other currencies	12,010	19,145	12,937	3,854	6,775	12,681	12,115	8,441	9,871	11,041
Total	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,383	23,647
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384	23,647
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,384	23,647
Issuance fixed coupon	12,648	19,977	12,558	8,219	16,939	24,739	25,596	9,815	18,808	19,227
Issuance floating coupon	-	-	379	1,135	2,336	4,548	2,552	2,626	5,575	4,420
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	12,648	19,977	12,937	9,354	19,275	29,287	28,148	12,441	24,383	23,647
Number of New Issuers	2	2	-	-	-	-	-	-	1	-

Note: Outstanding and issuance amounts include registered (legislative) and non-registered covered bonds. For a breakdown, please refer to Figure [1] from the Canada chapter in 3.5 section of the Fact Book.

5.2.8 CYPRUS

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	-	-	-	-	-	-	-	-	-
Mortgage	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Ships	n.a.	-	-	-	-	-	-	-	-	-
Others	n.a.	-	-	-	-	-	-	-	-	-
Total Outstanding	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Public Placement										
Benchmark (1bn and above)	n.a.	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	n.a.	-	-	-	-	-	-	-	-	-
Private Placement	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Total	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Denominated in EURO	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Denominated in domestic currency	n.a.	-	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Hard Bullet	n.a.	-	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	-	-	1,000	1,000	-	-	-	-	-
Conditional Pass Through	n.a.	-	-	-	-	650	650	650	650	650
Total	n.a.	-	-	1,000	1,000	650	650	650	650	650
Outstanding fixed coupon	n.a.	-	-	-	-	-	-	-	-	-
Outstanding floating coupon	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Outstanding other	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	5,200	4,550	1,000	1,000	650	650	650	650	650
Number of Programmes	n.a.	n.a.	n.a.	1	1	1	1	1	1	1
Number of Issuers	n.a.	2	2	1	1	1	1	1	1	1

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	-	-	-	-	-	-	-	-	-
Mortgage	n.a.	5,200	-	-	-	-	-	-	-	-
Ships	n.a.	-	-	-	-	-	-	-	-	-
Others	n.a.	-	-	-	-	-	-	-	-	-
Total Issuance	n.a.	5,200	-	-	-	-	-	-	-	-
Public Placement				-	-	-	-	-	-	-
Benchmark (1bn and above)	n.a.	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	n.a.	-	-	-	-	-	-	-	-	-
Private Placement	n.a.	5,200	-	-	-	-	-	-	-	-
Total	n.a.	5,200	-	-	-	-	-	-	-	-
Denominated in EURO	n.a.	5,200	-	-	-	-	-	-	-	-
Denominated in domestic currency	n.a.	-	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	5,200	-	-	-	-	-	-	-	-
Hard Bullet	n.a.	-	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	-	-	-	-	-	-	-	-	-
Conditional Pass Through	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	-	-	-	-	-	-	-	-	-
Issuance fixed coupon	n.a.	-	-	-	-	-	-	-	-	-
Issuance floating coupon	n.a.	5,200	-	-	-	-	-	-	-	-
Issuance other	n.a.	-	-	-	-	-	-	-	-	-
Total	n.a.	5,200	-	-	-	-	-	-	-	-
Number of New Issuers	n.a.	2	-	-	-	-	-	-	-	-

5.2.9 CZECH REPUBLIC

Outstanding (in EUR million)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	700	-	-	-
Others (below 500Mio)	5,454	5,194	5,522	6,731	4,316	6,156	5,856	3,107	4,861	2,912
Private Placement	2,780	3,352	3,534	3,624	6,790	5,500	6,504	12,415	8,896	11,255
Total	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Denominated in EURO	128	111	571	914	735	1,187	1,702	3,688	1,346	1,299
Denominated in domestic currency	8,106	8,435	8,485	9,441	10,371	10,469	11,358	11,834	12,411	12,868
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Hard Bullet	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,757	14,168
Outstanding fixed coupon	3,608	3,740	3,280	6,110	5,279	6,101	7,386	10,591	9,334	9,938
Outstanding floating coupon	4,063	4,119	5,096	4,105	5,654	5,462	5,571	4,838	4,407	4,230
Outstanding other	563	687	680	140	173	93	103	93	16	-
Total	8,234	8,546	9,056	10,355	11,106	11,656	13,060	15,522	13,758	14,168
Number of Programmes	n.a.	n.a.	n.a.	8	8	8	7	8	8	8
Number of Issuers	8	8	8	8	8	8	7	8	8	8

Issuance (in EUR million)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	705	711	742	622	369	1,138	387	376	187	-
Private Placement	18	59	567	1,169	1,819	1,591	1,306	3,698	2,386	1,516
Total	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Denominated in EURO	18	-	500	886	286	623	200	2,318	500	7
Denominated in domestic currency	705	770	809	905	1,902	2,106	1,493	1,756	2,073	1,509
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Hard Bullet	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Issuance fixed coupon	420	378	484	1,717	2,013	2,090	1,551	4,035	2,442	1,478
Issuance floating coupon	178	169	745	74	136	639	142	39	131	38
Issuance other	125	223	80	-	39	-	-	-	-	-
Total	723	770	1,309	1,791	2,188	2,729	1,693	4,074	2,573	1,516
Number of New Issuers	-	-	-	-	-	-	-	1	-	-

5.2.10 DENMARK

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	4,375	10,864
Mortgage	332,505	345,529	359,560	359,646	369,978	377,903	389,200	393,447	396,246	402,432
Ships	6,722	5,999	6,325	5,514	5,013	5,221	4,744	4,947	5,370	6,090
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	339,227	351,528	365,885	365,160	374,991	383,124	393,944	398,394	405,991	419,386
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	231,421	234,504	228,111	216,822	241,463	270,245	282,575	307,847
Benchmark (500mio - below 1bn)	n.a.	n.a.	52,156	54,170	64,229	76,880	78,434	57,504	54,836	45,686
Others (below 500Mio)	n.a.	n.a.	80,692	74,355	78,721	77,125	69,261	66,636	64,449	63,109
Private Placement	n.a.	n.a.	1,616	2,131	3,931	12,297	4,786	4,009	4,131	2,743
Total	339,227	351,528	365,885	365,160	374,992	383,124	393,944	398,394	405,991	419,386
Denominated in EURO	42,848	43,753	46,451	40,856	38,682	36,934	38,481	30,805	27,290	24,439
Denominated in domestic currency	294,019	302,938	312,065	316,603	327,442	337,631	346,368	357,977	369,111	384,498
Denominated in other currencies	2,360	4,837	7,368	7,701	8,867	8,559	9,095	9,612	9,590	10,449
Total	339,227	351,528	365,885	365,160	374,991	383,124	393,944	398,394	405,991	419,386
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	211,224	183,166	176,393	195,024
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	182,720	215,228	229,598	224,362
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	339,227	351,528	365,885	365,160	374,991	383,124	393,944	398,394	405,991	419,386
Outstanding fixed coupon	267,075	275,092	285,754	284,483	285,721	285,004	287,779	293,255	298,456	314,483
Outstanding floating coupon	72,152	76,436	80,131	80,677	89,271	98,120	105,165	105,139	107,535	104,903
Outstanding other	-	-	-	-	-	-	1,000	-	-	-
Total	339,227	351,528	365,885	365,160	374,992	383,124	393,944	398,394	405,991	419,386
Number of Programmes	n.a.	n.a.	n.a.	24	23	23	23	23	23	24
Number of Issuers	10	10	10	10	9	9	9	9	9	9

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	4,382	6,377
Mortgage	148,475	145,147	185,845	149,989	154,310	163,050	130,329	123,205	113,441	165,208
Ships	136	121	1,474	458	399	955	883	2,524	1,183	1,713
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	148,611	145,268	187,319	150,447	154,709	164,005	131,212	125,729	119,006	173,298
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	140,705	112,880	78,323	74,213	48,361	48,179	42,693	86,317
Benchmark (500mio - below 1bn)	n.a.	n.a.	18,339	17,573	31,779	33,205	34,322	28,429	30,205	39,856
Others (below 500Mio)	n.a.	n.a.	27,843	19,657	44,592	54,531	48,110	49,121	45,497	46,125
Private Placement	n.a.	n.a.	432	337	15	2,056	419	-	611	1,000
Total	148,611	145,268	187,319	150,447	154,709	164,005	131,212	125,729	119,006	173,298
Denominated in EURO	24,833	25,415	25,074	23,553	15,412	11,390	8,865	8,594	7,821	5,466
Denominated in domestic currency	122,374	116,911	158,335	124,331	134,368	147,944	118,030	114,873	109,434	164,053
Denominated in other currencies	1,404	2,942	3,910	2,563	4,929	4,671	4,317	2,262	1,751	3,779
Total	148,611	145,268	187,319	150,447	154,709	164,005	131,212	125,729	119,006	173,298
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	29,630	28,786	36,362	98,706
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	101,582	96,943	82,644	74,592
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	148,611	145,268	187,319	150,447	154,709	164,005	131,212	125,729	119,006	173,298
Issuance fixed coupon	133,846	128,195	163,680	130,290	131,949	129,815	90,328	89,319	89,194	140,692
Issuance floating coupon	14,765	17,073	23,638	20,157	22,760	34,190	40,884	36,410	29,812	32,606
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	148,611	145,268	187,319	150,447	154,709	164,005	131,212	125,729	119,006	173,298
Number of New Issuers	-	-	-	-	-	-	-	-	-	-

Note: Since a large share of Danish mortgage covered bonds are tap-issued over a period of typically 3 years, Benchmark (1bn and above) issues and outstanding are defined as covered bond with more than EUR 1 bn in the year, the bond reach EUR 1 bn. The same way, Benchmark (500Mio - below 1bn) issues and outstanding are defined as covered bond with 500Mio - below 1bn euro in the year, the bond reach EUR 500 Mio, and at the same time does not exceed EUR 1 bn. The definition includes both covered bonds denominated in DKK and in EUR. Danish covered bonds denominated in euro and issued in a jurisdiction outside Denmark are included in the Danish data.

5.2.11 FINLAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Public Placement										
Benchmark (1bn and above)	7,250	14,750	20,750	22,500	25,750	27,250	26,000	28,000	27,750	27,500
Benchmark (500mio - below 1bn)	1,600	2,200	2,200	2,200	2,100	2,070	2,000	2,500	4,000	4,500
Others (below 500Mio)	1,275	1,606	2,874	4,115	3,116	500	1,207	2,777	2,067	2,650
Private Placement	-	283	861	969	1,065	4,154	4,615	1,348	3,440	3,124
Total	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Denominated in EURO	10,125	18,453	26,114	29,230	31,738	33,663	33,665	34,458	36,842	37,398
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	386	571	553	293	311	157	167	414	376
Total	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	17,202	16,305	17,643	16,166
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16,620	18,320	19,614	21,608
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Outstanding fixed coupon	9,250	17,863	23,247	26,425	28,665	30,476	30,996	32,995	35,584	36,342
Outstanding floating coupon	875	976	3,437	3,358	3,366	3,498	2,826	1,630	1,673	1,432
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	10,125	18,839	26,684	29,783	32,031	33,974	33,822	34,625	37,257	37,774
Number of Programmes	n.a.	n.a.	n.a.	8	9	9	8	9	9	9
Number of Issuers	4	4	5	6	6	6	8	9	8	8

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Public Placement										
Benchmark (1bn and above)	4,000	8,500	7,000	2,750	5,500	6,500	2,250	4,500	3,250	4,750
Benchmark (500mio - below 1bn)	1,000	600	-	500	500	500	500	500	2,000	1,000
Others (below 500Mio)	250	581	1,790	370	469	250	550	550	400	900
Private Placement	-	283	578	151	-	175	1,379	-	-	-
Total	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Denominated in EURO	5,250	9,578	9,186	3,771	6,283	7,425	4,679	5,550	5,650	6,650
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	386	182	-	186	-	-	-	-	-
Total	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,279	1,500	3,000	2,500
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,400	4,050	2,650	4,150
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Issuance fixed coupon	5,000	9,613	6,783	3,621	6,170	7,410	3,679	5,550	5,650	6,650
Issuance floating coupon	250	351	2,585	150	299	15	1,000	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	5,250	9,964	9,368	3,771	6,469	7,425	4,679	5,550	5,650	6,650
Number of New Issuers	1	-	1	1	-	-	2	1	-	-

5.2.12 FRANCE

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	75,548	77,835	72,033	68,349	67,696	66,717	64,228	64,115	64,482	65,079
Mortgage	156,239	198,395	208,297	202,822	188,925	188,669	177,813	185,820	194,227	209,294
Mixed Assets	88,693	89,768	81,560	73,015	68,896	67,685	66,587	62,289	62,602	59,870
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	320,480	365,998	361,890	344,185	325,517	323,072	308,627	312,224	321,311	334,243
Public Placement										
Benchmark (Above 1bn)	n.a.	n.a.	241,775	209,885	208,784	201,947	188,508	181,069	180,484	173,151
Benchmark (500mio - below 1bn)	n.a.	n.a.	4,949	23,992	14,788	17,128	18,858	25,765	32,431	42,756
Others	n.a.	n.a.	36,595	32,253	7,865	10,121	5,427	4,806	4,804	13,257
Private Placement	n.a.	n.a.	78,570	78,055	94,081	93,876	95,836	100,584	103,593	105,079
Total	320,480	365,998	361,890	344,186	325,518	323,072	308,627	312,224	321,311	334,243
Denominated in EURO	285,501	327,874	331,212	316,562	303,435	303,710	292,233	302,504	314,880	327,567
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	34,979	38,123	30,678	27,624	22,083	19,362	16,395	9,720	6,431	6,676
Total	320,480	365,998	361,890	344,186	325,517	323,072	308,627	312,224	321,311	334,243
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	246,233	225,423	216,228	199,215
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	62,394	86,801	103,530	135,028
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	320,480	365,998	361,890	344,186	325,517	323,072	308,627	312,224	319,758	334,243
Outstanding fixed coupon	266,080	284,266	297,009	287,504	279,149	295,639	284,807	289,169	275,856	315,135
Outstanding floating coupon	43,710	75,068	47,805	43,002	32,725	16,640	12,690	14,493	8,536	10,699
Outstanding other	10,690	6,665	17,076	13,680	13,643	10,792	11,131	8,562	36,920	8,410
Total	320,480	365,998	361,890	344,186	325,517	323,072	308,627	312,224	321,311	334,243
Number of Programmes	n.a.	n.a.	n.a.	23	21	19	19	19	18	19
Number of Issuers	16	19	20	21	21	19	16	19	18	19

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	12,508	8,851	1,150	4,179	5,318	6,785	6,441	8,681	5,483	8,800
Mortgage	42,895	84,416	49,260	19,637	14,483	29,705	19,482	28,347	27,108	37,050
Mixed Assets	17,261	8,719	8,101	3,498	6,149	8,395	5,366	6,455	5,218	3,000
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	72,664	101,986	58,511	27,314	25,950	44,885	31,289	43,483	37,809	48,850
Public Placement									-	
Benchmark (Above 1bn)	n.a.	n.a.	25,672	12,250	15,250	14,500	17,050	18,745	15,800	19,710
Benchmark (500mio - below 1bn)	n.a.	n.a.	1,185	5,550	4,250	5,650	4,250	7,800	9,950	7,460
Others	n.a.	n.a.	4,830	1,755	496	2,431	-	421	-	230
Private Placement	n.a.	n.a.	26,824	7,759	5,955	22,304	9,989	16,517	12,059	21,450
Total	72,664	101,986	58,511	27,314	25,951	44,885	31,289	43,483	37,809	48,850
Denominated in EURO	64,375	96,020	55,851	26,596	25,455	44,562	31,102	43,312	37,809	48,620
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	8,289	5,967	2,660	718	495	323	187	171	-	230
Total	72,664	101,986	58,511	27,314	25,950	44,885	31,289	43,483	37,809	48,850
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	11,272	12,966	10,791	10,035
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20,017	30,517	27,018	38,815
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	72,664	101,986	58,511	27,314	25,950	44,885	31,289	43,483	37,809	48,850
Issuance fixed coupon	64,503	67,612	36,003	23,556	24,027	43,642	30,395	40,208	35,821	47,280
Issuance floating coupon	7,953	34,286	22,368	3,558	1,549	1,243	840	3,275	1,000	1,570
Issuance other	208	89	140	200	374	-	54	-	988	-
Total	72,664	101,986	58,511	27,314	25,950	44,885	31,289	43,483	37,809	48,850
Number of New Issuers	4	3	1	1	-	-	-	-	-	1

Note: The "Mixed assets" category refers to covered bonds that are backed by a mix of public sector assets, mortgage loans. The bonds (outstanding and issuance) have been allocated equally between mortgage and public sector categories in the total (5.2.1 section of the Fact Book).

5.2.13 GERMANY

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	412,090	355,673	301,125	245,961	206,535	180,524	161,871	148,081	134,717	121,849
Mortgage	219,947	223,676	215,999	199,900	189,936	197,726	207,338	215,199	233,372	239,570
Ships	7,805	6,641	7,246	5,792	4,811	5,158	3,551	2,420	1,154	2,724
Others	-	-	506	506	1,006	1,006	1,006	505	505	-
Total Outstanding	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,747	364,143
Public Placement										
Benchmark (1bn and above)	170,068	141,393	112,869	81,030	55,608	48,462	34,635	32,235	37,110	40,625
Benchmark (500mio - below 1bn)	28,644	28,704	36,862	46,798	56,987	69,883	85,807	90,494	102,175	116,688
Others (below 500Mio)	46,344	43,634	75,244	63,864	60,229	43,828	41,913	40,133	51,073	29,655
Private Placement	394,786	372,259	299,901	260,467	229,464	222,241	211,411	203,343	179,390	177,175
Total	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,747	364,143
Denominated in EURO	620,420	565,529	506,639	437,737	387,772	370,419	357,884	350,976	357,184	349,229
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	19,422	20,461	18,237	14,422	14,516	13,995	15,882	15,229	12,563	14,914
Total	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,747	364,143
Hard Bullet	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,596	364,143
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,747	364,143
Outstanding fixed coupon	546,791	493,983	433,787	375,537	339,705	334,264	328,143	326,595	342,427	336,220
Outstanding floating coupon	78,105	74,340	76,840	59,170	51,956	44,359	34,657	33,844	24,557	20,721
Outstanding other	14,946	17,667	14,249	17,452	10,627	5,791	10,966	5,766	2,764	7,201
Total	639,842	585,990	524,876	452,159	402,288	384,414	373,766	366,205	369,747	364,143
Number of Programmes	n.a.	n.a.	n.a.	116	121	121	120	117	120	120
Number of Issuers	63	66	71	72	78	79	78	78	78	78

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	41,574	30,990	14,341	15,611	15,334	15,544	10,364	11,935	7,230	11,236
Mortgage	42,216	40,911	38,540	33,583	29,145	40,369	35,070	36,841	43,142	41,973
Ships	3,189	895	3,169	303	920	2,208	-	-	10	1,760
Others	-	-	506	-	500	-	-	-	-	-
Total Issuance	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Public Placement										
Benchmark (1bn and above)	16,853	21,406	4,008	2,125	5,500	5,500	5,250	4,250	9,000	10,000
Benchmark (500mio - below 1bn)	10,297	5,319	11,879	15,725	14,100	22,201	20,469	15,882	22,441	20,422
Others (below 500Mio)	11,835	15,632	11,816	11,816	9,045	11,263	6,492	11,758	6,850	8,575
Private Placement	47,994	30,439	28,853	19,831	17,254	19,157	13,223	16,886	12,091	15,972
Total	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Denominated in EURO	84,459	68,585	52,608	45,757	42,811	55,470	40,754	42,750	45,610	48,970
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	2,520	4,211	3,948	3,740	3,088	2,651	4,680	6,026	4,772	5,998
Total	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Hard Bullet	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Issuance fixed coupon	62,518	54,023	32,274	37,878	36,917	50,618	43,888	41,490	45,116	49,340
Issuance floating coupon	23,468	16,692	23,702	11,302	8,755	6,743	1,303	7,100	5,241	5,617
Issuance other	993	2,081	580	317	227	760	243	186	25	12
Total	86,979	72,796	56,556	49,497	45,899	58,121	45,434	48,776	50,382	54,969
Number of New Issuers	5	3	5	1	6	2	-	2	2	3

5.2.14 GREECE

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Public Placement										
Benchmark (1bn and above)	1,500	1,500	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	846	846	846	846	-	1,250	1,750	1,750
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	18,250	18,250	17,200	15,700	13,700	4,115	4,485	8,850	12,090	11,440
Total	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Denominated in EURO	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	19,750	19,750	18,046	16,546	5,546	896	3,725	6,350	3,990	1,840
Conditional Pass Through	-	-	-	-	9,000	4,065	760	3,750	9,850	11,350
Total	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Outstanding fixed coupon	1,500	1,500	846	846	846	846	-	1,250	2,550	2,350
Outstanding floating coupon	18,250	18,250	17,200	15,700	13,700	4,115	4,485	8,850	11,290	10,840
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	19,750	19,750	18,046	16,546	14,546	4,961	4,485	10,100	13,840	13,190
Number of Programmes	n.a.	n.a.	n.a.	6	6	6	6	7	8	8
Number of Issuers	4	4	4	4	4	4	4	4	4	4

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	1,250	500	-
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	17,250	5,000	-	-	750	-	3,675	6,125	6,150	200
Total	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Denominated in EURO	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	17,250	5,000	-	-	-	-	3,675	2,625	2,050	-
Conditional Pass Through	-	-	-	-	750	-	-	4,750	4,600	200
Total	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Issuance fixed coupon	-	-	-	-	-	-	-	1,250	1,300	-
Issuance floating coupon	17,250	5,000	-	-	750	-	3,675	6,125	5,350	200
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	17,250	5,000	-	-	750	-	3,675	7,375	6,650	200
Number of New Issuers	2	1	-	-	-	-	-	-	-	-

5.2.15 HUNGARY

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	2,290	-	-	-	-	-	-	-
Others (below 500Mio)	n.a.	n.a.	865	20	-	19	612	71	543	3,363
Private Placement	n.a.	n.a.	1,803	3,996	3,272	3,003	1,577	2,569	3,219	504
Total	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Denominated in EURO	2,904	2,167	1,863	1,616	1,116	1,036	537	35	25	17
Denominated in domestic currency	3,419	2,934	3,059	2,354	2,154	1,986	1,652	2,605	3,737	3,850
Denominated in other currencies	-	74	36	46	2	-	-	-	-	-
Total	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Hard Bullet	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Outstanding fixed coupon	5,713	3,195	3,318	2,650	2,205	1,699	1,387	1,814	3,275	3,210
Outstanding floating coupon	610	1,980	1,640	1,366	1,067	1,323	802	827	449	658
Outstanding other	-	-	-	-	-	-	-	-	38	-
Total	6,323	5,175	4,958	4,016	3,272	3,022	2,189	2,641	3,762	3,868
Number of Programmes	n.a	n.a	n.a	3	3	4	4	5	5	5
Number of Issuers	3	3	3	3	3	3	4	5	5	5

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	542	2,264	1,140	559	91	888	625	1,166	2,004	487
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	542	2,264	1,140	559	91	888	625	1,166	2,004	487
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	510	500	-	-	-	-	-	-
Others (below 500Mio)	n.a.	n.a.	630	57	-	-	293	16	505	453
Private Placement	n.a.	n.a.	-	2	91	888	333	1,150	1,499	33
Total	542	2,264	1,140	559	91	888	626	1,166	2,004	487
Denominated in EURO	300	1,600	510	515	-	500	5	-	-	-
Denominated in domestic currency	242	565	630	42	91	388	620	1,166	2,004	487
Denominated in other currencies	-	99	-	2	-	-	-	-	-	-
Total	542	2,264	1,140	559	91	888	625	1,166	2,004	487
Hard Bullet	542	2,264	1,140	559	91	888	625	1,166	2,004	487
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	542	2,264	1,140	559	91	888	625	1,166	2,004	487
Issuance fixed coupon	477	538	630	57	44	121	402	552	1,599	265
Issuance floating coupon	65	1,726	510	502	48	767	224	614	405	222
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	542	2,264	1,140	559	92	888	626	1,166	2,004	487
Number of New Issuers	-	-	-	-	-	-	1	1	-	-

5.2.16 ICELAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Denominated in EURO	-	-	-	-	-	-	-	-	-	-
Denominated in domestic currency	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Hard Bullet	807	808	497	520	489	421	489	354	338	-
Soft Bullet	-	-	396	283	438	784	1,413	2,152	2,786	3,071
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Outstanding fixed coupon	-	-	15	66	199	254	490	541	612	866
Outstanding floating coupon	-	-	-	-	-	-	-	-	-	-
Outstanding other	807	808	878	737	728	951	1,412	1,965	2,512	2,205
Total	807	808	893	803	927	1,205	1,902	2,506	3,123	3,071
Number of Programmes	n.a.	1	3	4	4	4	4	4	4	3
Number of Issuers	1	1	2	3	3	3	3	3	3	3

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	-	25	113	51	91	414	560	850	755	788
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	-	25	113	51	91	414	560	850	755	788
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	-	25	113	51	91	414	560	850	755	788
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	-	25	113	51	91	414	560	850	755	788
Denominated in EURO	-	-	-	-	-	-	-	-	-	-
Denominated in domestic currency	-	25	113	51	91	414	560	850	755	788
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	-	25	113	51	91	414	560	850	755	788
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	-	25	113	51	91	414	560	850	755	788
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	-	25	113	51	91	414	560	850	755	788
Issuance fixed coupon	-	-	15	23	35	158	255	99	89	378
Issuance floating coupon	-	-	-	-	-	-	-	-	-	-
Issuance other	-	25	98	28	56	256	305	751	667	410
Total	-	25	113	51	91	414	560	850	755	788
Number of New Issuers	-	-	1	1	-	-	-	-	-	-

5.2.17 IRELAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	36,492	31,760	27,546	22,154	20,258	15,389	6,757	3,114	2,531	708
Mortgage	29,037	30,007	25,099	20,827	18,473	16,916	17,062	16,416	20,788	19,337
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	65,529	61,767	52,645	42,981	38,731	32,305	23,819	19,530	23,319	20,044
Public Placement										
Benchmark (1bn and above)	n.a.	26,402	23,079	17,169	13,254	8,010	1,675	2,000	1,000	1,000
Benchmark (500mio - below 1bn)	n.a.	500	500	2,500	4,611	7,134	8,668	5,750	7,355	5,679
Others (below 500Mio)	n.a.	1,092	868	239	-	232	476	472	-	25
Private Placement	n.a.	33,773	28,198	23,073	20,866	16,930	13,000	11,308	14,964	13,341
Total	65,529	61,767	52,645	42,981	38,731	32,305	23,819	19,530	23,319	20,044
Denominated in EURO	54,940	53,054	44,725	36,360	31,987	27,108	22,263	18,974	23,103	19,973
Denominated in domestic currency	-	-	-	-	-	-	-	-	216	72
Denominated in other currencies	10,589	8,713	7,920	6,621	6,743	5,198	1,556	556	-	-
Total	65,529	61,767	52,645	42,981	38,731	32,305	23,819	19,530	23,319	20,044
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	6,853	3,210	2,541	718
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16,966	16,320	20,778	19,327
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	65,529	61,767	52,645	42,981	38,731	32,305	23,819	19,530	23,319	20,044
Outstanding fixed coupon	40,069	35,853	32,658	27,652	26,187	23,003	15,622	11,244	10,190	7,840
Outstanding floating coupon	22,507	22,919	17,008	12,730	10,240	7,045	6,267	8,230	13,058	12,204
Outstanding other	2,953	2,995	2,979	2,598	2,303	2,258	1,930	56	70	-
Total	65,529	61,767	52,645	42,981	38,731	32,305	23,819	19,530	23,319	20,044
Number of Programmes	6	6	5	5	5	5	5	5	5	5
Number of Issuers	6	6	5	5	5	5	5	5	5	5

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	60	-	-	25	-	-	-	-	-	-
Mortgage	6,000	9,290	5,500	3,235	2,535	5,225	3,542	3,250	5,575	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	1,000	1,000	-	1,000	1,000	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	500	2,000	1,250	3,000	-	-	750	-
Others (below 500Mio)	n.a.	n.a.	-	-	-	-	-	-	-	-
Private Placement	n.a.	n.a.	4,000	260	1,285	1,225	2,542	3,250	4,825	-
Total	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Denominated in EURO	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,542	3,250	5,575	-
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Issuance fixed coupon	210	-	1,500	3,035	1,385	4,225	1,042	-	875	-
Issuance floating coupon	5,850	9,290	4,000	225	1,150	1,000	2,500	3,250	4,700	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	6,060	9,290	5,500	3,260	2,535	5,225	3,542	3,250	5,575	-
Number of New Issuers	-	-	-	-	-	-	-	-	-	-

5.2.18 ITALY

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	10,092	12,999	10,300	6,945	8,700	8,400	7,575	6,725	5,625	4,925
Mortgage	26,925	50,768	116,405	122,099	122,464	122,135	138,977	139,937	163,311	172,728
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	37,017	63,767	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	37,927	39,602	44,453	46,503	42,423	42,073	38,103	38,603
Benchmark (500mio - below 1bn)	n.a.	n.a.	4,450	8,450	8,400	12,628	12,500	16,575	18,750	20,100
Others (below 500Mio)	n.a.	n.a.	1,783	1,170	140	500	375	-	-	200
Private Placement	n.a.	n.a.	82,544	79,822	78,171	70,904	91,254	88,014	112,083	118,750
Total	37,017	63,767	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Denominated in EURO	36,925	63,668	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	92	99	-	-	-	-	-	-	-	-
Total	37,017	63,767	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	112,212	110,857	124,951	134,213
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	34,340	35,805	43,985	43,440
Total	37,017	63,767	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Outstanding fixed coupon	27,100	44,954	50,059	57,724	63,924	68,111	63,603	64,115	64,070	67,420
Outstanding floating coupon	2,825	18,814	76,646	71,320	67,240	62,424	82,950	82,497	104,816	110,183
Outstanding other	7,092	-	-	-	-	-	-	50	50	50
Total	37,017	63,767	126,705	129,044	131,164	130,535	146,552	146,662	168,936	177,653
Number of Programmes	n.a.	n.a.	n.a.	19	21	24	24	25	23	21
Number of Issuers	11	12	13	13	14	14	14	14	13	12

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	2,000	5,900	-	4,200	1,000	1,700	2,375	1,650	-	-
Mortgage	12,925	29,261	70,768	24,520	39,475	27,650	41,780	19,180	45,200	27,000
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	6,304	5,250	7,750	7,250	3,250	2,250	1,000	3,000
Benchmark (500mio - below 1bn)	n.a.	n.a.	1,700	3,500	2,750	5,500	2,750	3,575	4,250	3,350
Others (below 500Mio)	n.a.	n.a.	-	250	-	-	-	-	-	-
Private Placement	n.a.	n.a.	62,764	19,720	29,975	16,600	38,155	15,005	39,950	20,650
Total	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Denominated in EURO	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	25,105	14,015	31,475	23,500
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	19,050	6,815	13,725	3,500
Total	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Issuance fixed coupon	12,600	18,750	11,013	12,170	10,585	12,250	8,000	7,825	6,000	7,350
Issuance floating coupon	2,325	16,411	59,755	16,550	29,890	17,100	36,155	13,005	39,200	19,650
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	14,925	35,161	70,768	28,720	40,475	29,350	44,155	20,830	45,200	27,000
Number of New Issuers	4	1	1	-	1	1	-	1	-	-

5.2.19 JAPAN

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total Outstanding	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	1,873
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,687
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,250
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,310
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Outstanding fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Outstanding floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Outstanding other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	3,560
Number of Programmes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	1
Number of Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	1

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total Issuance	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	873
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,187
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,060
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	1,250
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,310
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Issuance fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Issuance floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Issuance other	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,000	2,560
Number of New Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	-

5.2.20 LATVIA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	63	37	-	-	-	-	-	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	63	37	-	-	-	-	-	-	-	-
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	63	37	-	-	-	-	-	-	-	-
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	63	37	-	-	-	-	-	-	-	-
Denominated in EURO	45	25	-	-	-	-	-	-	-	-
Denominated in domestic currency	14	12	-	-	-	-	-	-	-	-
Denominated in other currencies	4	-	-	-	-	-	-	-	-	-
Total	63	37	-	-	-	-	-	-	-	-
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Outstanding fixed coupon	27	12	-	-	-	-	-	-	-	-
Outstanding floating coupon	36	25	-	-	-	-	-	-	-	-
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	63	37	-	-	-	-	-	-	-	-
Number of Programmes	n.a.	n.a.	-	-	-	-	-	-	-	-
Number of Issuers	4	2	-	-	-	-	-	-	-	-

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	-	-	-	-	-	-	-	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	-	-	-	-	-	-	-	-	-	-
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Denominated in EURO	-	-	-	-	-	-	-	-	-	-
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Issuance fixed coupon	-	-	-	-	-	-	-	-	-	-
Issuance floating coupon	-	-	-	-	-	-	-	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Number of New Issuers	-	-	-	-	-	-	-	-	-	-

5.2.21 LUXEMBOURG

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Mortgage	-	-	-	-	-	-	-	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	1,768	1,000	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	973	2,781	2,310	2,810	2,068	2,579
Others (below 500Mio)	n.a.	n.a.	9,696	10,052	8,041	1,150	810	440	375	438
Private Placement	n.a.	n.a.	13,395	10,656	6,987	6,235	4,744	3,655	3,660	3,273
Total	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Denominated in EURO	15,826	15,496	14,994	12,925	8,226	5,578	5,360	4,267	4,057	4,350
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	13,063	11,204	9,864	8,783	7,775	4,589	2,504	2,638	2,046	1,940
Total	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Hard Bullet	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Outstanding fixed coupon	20,390	16,547	14,766	13,182	11,417	8,250	6,589	6,509	5,973	6,044
Outstanding floating coupon	7,710	9,377	8,507	7,080	3,802	1,710	816	142	116	118
Outstanding other	789	776	1,585	1,445	783	206	460	254	14	128
Total	28,889	26,700	24,859	21,708	16,002	10,166	7,864	6,905	6,103	6,290
Number of Programmes	n.a.	n.a.	n.a.	6	5	3	3	3	3	2
Number of Issuers	5	5	6	6	5	3	3	3	3	2

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Mortgage	-	-	-	-	-	-	-	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	1,000	500	500	568	500
Others (below 500Mio)	n.a.	n.a.	-	-	-	-	-	-	-	-
Private Placement	n.a.	n.a.	2,660	825	398	220	155	244	158	25
Total	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Denominated in EURO	3,260	2,422	2,587	825	233	1,220	655	640	158	525
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	264	366	73	-	165	-	-	104	568	-
Total	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Hard Bullet	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Issuance fixed coupon	1,213	336	187	-	398	1,205	655	744	726	525
Issuance floating coupon	2,289	2,452	2,473	825	-	15	-	-	-	-
Issuance other	22	-	-	-	-	-	-	-	-	-
Total	3,524	2,788	2,660	825	398	1,220	655	744	726	525
Number of New Issuers	-	-	1	-	-	-	-	-	-	-

5.2.22 THE NETHERLANDS

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Public Placement										
Benchmark (1bn and above)	29,150	38,850	44,487	44,188	40,335	37,228	38,773	40,001	42,330	46,730
Benchmark (500mio - below 1bn)	-	500	500	1,000	1,000	2,750	4,750	7,750	10,500	13,875
Others (below 500Mio)	1,819	2,345	2,319	2,281	2,329	1,523	1,211	812	399	415
Private Placement	9,211	10,276	12,516	13,547	15,158	19,600	22,870	24,317	41,568	57,949
Total	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Denominated in EURO	36,854	47,795	53,884	55,362	53,030	55,897	63,694	69,722	91,990	116,103
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	3,326	4,175	5,938	5,653	5,792	5,204	3,910	3,158	2,807	2,866
Total	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Hard Bullet	32,957	45,122	53,242	53,938	53,303	17,557	16,151	15,038	12,762	12,400
Soft Bullet	7,223	6,848	6,580	6,576	4,519	40,793	47,203	51,092	73,786	95,924
Conditional Pass Through	-	-	-	501	1,000	2,751	4,250	6,750	8,250	10,645
Total	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Outstanding fixed coupon	37,954	51,230	58,902	60,016	57,864	59,142	62,181	67,858	89,775	114,522
Outstanding floating coupon	2,176	700	880	959	928	1,928	5,392	4,992	4,992	4,417
Outstanding other	50	40	40	40	30	30	30	30	30	30
Total	40,180	51,970	59,822	61,015	58,822	61,101	67,604	72,880	94,797	118,969
Number of Programmes	5	5	5	6	5	8	8	10	11	13
Number of Issuers	5	5	5	5	5	7	7	9	9	9

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Public Placement										
Benchmark (1bn and above)	9,750	9,700	8,387	2,750	1,500	1,750	3,500	6,750	7,770	6,375
Benchmark (500mio - below 1bn)	-	500	-	500	500	1,750	2,000	3,000	3,250	4,625
Others (below 500Mio)	300	473	290	-	-	-	-	-	-	-
Private Placement	3,611	3,470	2,062	1,228	1,910	4,408	4,408	2,175	17,694	17,388
Total	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Denominated in EURO	12,337	13,207	8,859	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	1,324	937	1,879	-	-	-	-	-	-	-
Total	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Hard Bullet	11,320	13,639	9,738	3,977	3,235	-	-	-	-	30
Soft Bullet	2,341	504	1,000	-	-	6,157	8,408	9,425	26,714	25,463
Conditional Pass Through	-	-	-	501	675	1,751	1,500	2,500	2,000	2,895
Total	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Issuance fixed coupon	13,603	14,013	10,558	4,398	3,895	6,908	6,333	11,925	28,714	28,388
Issuance floating coupon	57	130	180	80	15	1,000	3,575	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	13,660	14,143	10,738	4,478	3,910	7,908	9,908	11,925	28,714	28,388
Number of New Issuers	-	-	-	-	-	2	-	2	-	-

5.2.23 NEW ZEALAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Public Placement										
Benchmark (1bn and above)	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Benchmark (500mio - below 1bn)	-	1,050	3,051	3,954	5,472	5,470	6,750	6,750	7,000	7,500
Others (below 500Mio)	247	427	1,353	1,436	1,347	788	605	555	134	138
Private Placement	-	179	477	461	645	891	1,322	883	669	380
Total	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Denominated in EURO	1,000	2,500	4,500	5,500	7,000	7,200	8,950	8,950	9,200	9,700
Denominated in domestic currency	247	606	982	940	1,014	879	1,122	683	469	180
Denominated in other currencies	-	550	1,399	1,411	1,449	1,070	605	555	134	138
Total	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Hard Bullet	1,247	3,656	6,131	5,979	6,839	5,061	2,889	932	293	-
Soft Bullet	-	-	750	1,872	2,625	4,088	7,788	9,256	9,510	10,018
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Outstanding fixed coupon	1,247	3,477	6,259	7,244	8,834	8,961	10,479	10,010	9,627	10,018
Outstanding floating coupon	-	179	622	607	630	188	198	178	176	-
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	1,247	3,656	6,881	7,851	9,464	9,149	10,677	10,188	9,803	10,018
Number of Programmes	1	4	4	5	5	5	5	5	5	5
Number of Issuers	1	4	4	5	5	5	5	5	5	5

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Public Placement										
Benchmark (1bn and above)	1,000	1,000	-	-	-	-	1,000	1,000	-	-
Benchmark (500mio - below 1bn)	-	1,050	2,000	1,000	750	1,250	2,500	1,250	1,250	1,250
Others (below 500Mio)	247	179	902	122	-	-	-	-	-	-
Private Placement	-	179	290	-	-	200	198	-	-	-
Total	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Denominated in EURO	1,000	1,500	2,000	1,000	750	1,450	3,500	2,250	1,250	1,250
Denominated in domestic currency	247	358	343	-	-	-	198	-	-	-
Denominated in other currencies	-	550	849	122	-	-	-	-	-	-
Total	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Hard Bullet	1,247	2,409	2,442	-	-	-	-	-	-	-
Soft Bullet	-	-	750	1,122	750	1,450	3,698	2,250	1,250	1,250
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Issuance fixed coupon	1,247	2,229	2,757	1,122	750	1,450	3,698	2,250	1,250	1,250
Issuance floating coupon	-	179	435	-	-	-	-	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	1,247	2,409	3,192	1,122	750	1,450	3,698	2,250	1,250	1,250
Number of New Issuers	1	3	-	1	-	-	-	-	-	-

5.2.24 NORWAY

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	1,837	3,759	2,742	2,035	1,820	1,672	2,199	1,824	1,784	1,886
Mortgage	70,401	91,852	107,242	105,202	102,704	107,694	113,051	113,359	119,398	123,023
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	72,238	95,611	109,984	107,237	104,524	109,366	115,251	115,183	121,182	124,909
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	51,179	47,342	51,185	46,834	52,192	49,390	53,375	53,088
Benchmark (500mio - below 1bn)	n.a.	n.a.	20,125	18,471	14,523	18,953	21,430	30,183	29,086	34,650
Others (below 500Mio)	n.a.	n.a.	32,354	31,763	26,434	32,463	32,681	26,212	29,305	25,651
Private Placement	n.a.	n.a.	6,327	9,661	12,382	11,116	8,947	9,397	9,416	11,520
Total	72,238	95,611	109,985	107,237	104,524	109,366	115,251	115,183	121,182	124,909
Denominated in EURO	22,022	29,953	38,597	44,510	49,928	51,537	55,256	56,257	60,396	63,004
Denominated in domestic currency	45,803	55,325	59,533	49,965	41,502	44,081	50,159	49,490	52,640	54,385
Denominated in other currencies	4,413	10,333	11,854	12,762	13,094	13,748	9,837	9,435	8,145	7,520
Total	72,238	95,611	109,984	107,237	104,524	109,366	115,251	115,183	121,182	124,909
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	8,232	8,484	7,646	7,286
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	107,019	106,699	113,535	117,623
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	72,238	95,611	109,984	107,237	104,524	109,366	115,251	115,183	121,182	124,909
Outstanding fixed coupon	28,809	44,813	56,918	63,088	66,831	70,368	68,106	68,908	71,896	75,935
Outstanding floating coupon	43,429	50,798	53,066	44,148	37,694	38,998	47,146	45,246	49,285	48,974
Outstanding other	-	-	-	-	-	-	-	1,029	-	-
Total	72,238	95,611	109,984	107,236	104,524	109,366	115,251	115,183	121,182	124,909
Number of Programmes	n.a.	n.a.	n.a.	23	23	27	28	29	28	27
Number of Issuers	22	23	22	22	22	24	25	25	24	24

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	1,421	2,374	943	239	664	312	781	457	332	608
Mortgage	21,062	28,135	22,946	18,339	14,474	17,750	23,058	21,256	24,331	20,766
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	22,483	30,509	23,888	18,578	15,138	18,063	23,839	21,713	24,663	21,374
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	10,916	7,441	6,823	4,937	9,143	7,699	10,595	7,584
Benchmark (500mio - below 1bn)	n.a.	n.a.	4,748	1,458	2,157	4,346	6,400	6,767	6,049	8,548
Others (below 500Mio)	n.a.	n.a.	7,664	8,267	5,082	8,574	7,115	6,295	7,304	4,633
Private Placement	n.a.	n.a.	560	1,412	1,076	206	1,181	951	716	608
Total	22,483	30,509	23,888	18,578	15,138	18,063	23,839	21,713	24,663	21,374
Denominated in EURO	11,232	8,800	12,431	8,382	4,590	6,773	10,342	9,688	11,618	8,150
Denominated in domestic currency	7,777	15,808	9,463	7,546	9,854	9,206	12,807	9,675	11,465	12,295
Denominated in other currencies	3,474	5,901	1,994	2,651	694	2,084	690	2,350	1,580	929
Total	22,483	30,509	23,888	18,578	15,138	18,063	23,839	21,713	24,663	21,374
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	196	633	1,167	30
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,643	21,080	23,496	21,344
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	22,483	30,509	23,888	18,578	15,138	18,063	23,839	21,713	24,663	21,374
Issuance fixed coupon	16,074	15,961	15,462	11,423	3,475	9,173	10,719	11,896	13,992	10,375
Issuance floating coupon	6,409	14,548	8,427	7,155	11,519	8,748	12,525	9,817	10,671	10,999
Issuance other	-	-	-	-	144	142	594	-	-	-
Total	22,483	30,509	23,888	18,578	15,138	18,063	23,839	21,713	24,663	21,374
Number of New Issuers	-	1	-	-	1	2	1	-	-	-

Note: The breakdown for public/private issuance may be based on different definitions with the ECBC guidelines.

5.2.25 PANAMA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	-	-	-	-	-	-	-	-
Mortgage	n.a.	n.a.	152	218	247	276	80	-	10	36
Ships	n.a.	n.a.	-	-	-	-	-	-	-	-
Others	n.a.	n.a.	-	-	-	-	-	-	-	-
Total Outstanding	n.a.	n.a.	152	218	247	276	80	-	10	36
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	-	-	-	-
Others (below 500Mio)	n.a.	n.a.	152	218	247	276	80	-	-	-
Private Placement	n.a.	n.a.	-	-	-	-	-	-	10	36
Total	n.a.	n.a.	152	218	247	276	80	-	10	36
Denominated in EURO	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in domestic currency	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	152	218	247	276	80	-	10	36
Total	n.a.	n.a.	152	218	247	276	80	-	10	36
Hard Bullet	n.a.	n.a.	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	n.a.	152	218	247	276	80	-	10	36
Conditional Pass Through	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	152	218	247	276	80	-	10	36
Outstanding fixed coupon	n.a.	n.a.	152	218	247	276	80	-	10	36
Outstanding floating coupon	n.a.	n.a.	-	-	-	-	-	-	-	-
Outstanding other	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	152	218	247	276	80	-	10	36
Number of Programmes	n.a.	n.a.	1	1	1	1	1	-	1	1
Number of Issuers	n.a.	n.a.	1	1	1	1	1	-	1	1

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	-	-	-	-	-	-	-	-
Mortgage	n.a.	n.a.	152	73	-	-	-	-	10	26
Ships	n.a.	n.a.	-	-	-	-	-	-	-	-
Others	n.a.	n.a.	-	-	-	-	-	-	-	-
Total Issuance	n.a.	n.a.	152	73	-	-	-	-	10	26
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	-	-	-	-
Others (below 500Mio)	n.a.	n.a.	152	73	-	-	-	-	-	-
Private Placement	n.a.	n.a.	-	-	-	-	-	-	10	26
Total	n.a.	n.a.	152	73	-	-	-	-	10	26
Denominated in EURO	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in domestic currency	n.a.	n.a.	-	-	-	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	152	73	-	-	-	-	10	26
Total	n.a.	n.a.	152	73	-	-	-	-	10	26
Hard Bullet	n.a.	n.a.	-	-	-	-	-	-	-	-
Soft Bullet	n.a.	n.a.	152	73	-	-	-	-	10	26
Conditional Pass Through	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	152	73	-	-	-	-	10	26
Issuance fixed coupon	n.a.	n.a.	152	73	-	-	-	-	10	26
Issuance floating coupon	n.a.	n.a.	-	-	-	-	-	-	-	-
Issuance other	n.a.	n.a.	-	-	-	-	-	-	-	-
Total	n.a.	n.a.	152	73	-	-	-	-	10	26
Number of New Issuers	n.a.	n.a.	1	-	-	-	-	-	1	-

5.2.26 POLAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	126	112	110	84	82	35	-	-	79	71
Mortgage	511	527	657	707	882	1,230	2,216	3,959	4,925	6,111
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	636	639	768	791	964	1,266	2,216	3,959	5,004	6,181
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	500	1,500	2,000	2,700
Others (below 500Mio)	n.a.	n.a.	768	791	964	1,266	1,556	2,284	2,846	3,332
Private Placement	n.a.	n.a.	-	-	-	-	160	175	158	150
Total	636	639	768	791	964	1,266	2,216	3,959	5,004	6,181
Denominated in EURO	-	-	20	117	250	378	1,046	2,170	2,882	3,841
Denominated in domestic currency	636	639	748	674	714	888	1,170	1,789	2,122	2,340
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	636	639	768	791	964	1,266	2,216	3,959	5,004	6,181
Hard Bullet	636	639	768	791	964	1,266	-	-	-	-
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	2,216	3,959	5,004	6,181
Total	636	639	768	791	964	1,266	2,216	3,959	5,004	6,181
Outstanding fixed coupon	-	-	-	30	107	139	721	1,990	2,781	3,782
Outstanding floating coupon	636	639	768	761	857	1,127	1,495	1,969	2,223	2,399
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	636	639	768	791	964	1,266	2,216	3,959	5,004	6,181
Number of Programmes	n.a.	n.a.	3	3	3	4	3	3	3	5
Number of Issuers	3	2	2	2	2	3	3	3	3	4

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	25	-	61	-	-	-	-	-	79	-
Mortgage	138	269	228	116	269	416	1,099	2,048	1,244	1,284
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	164	269	289	116	269	416	1,099	2,048	1,323	1,284
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	500	1,000	500	700
Others (below 500Mio)	n.a.	n.a.	289	116	269	416	439	801	744	534
Private Placement	n.a.	n.a.	-	-	-	-	160	247	79	50
Total	164	269	289	116	269	416	1,099	2,048	1,323	1,284
Denominated in EURO	-	-	20	96	135	127	668	1,204	800	1,050
Denominated in domestic currency	164	269	269	20	135	290	431	844	523	234
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	164	269	289	116	269	416	1,099	2,048	1,323	1,284
Hard Bullet	164	269	289	116	269	416	-	-	-	-
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	1,099	2,048	1,323	1,284
Total	164	269	289	116	269	416	1,099	2,048	1,323	1,284
Issuance fixed coupon	-	-	-	30	78	31	582	1,267	814	1,000
Issuance floating coupon	164	269	289	86	192	385	517	781	509	284
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	164	269	289	116	269	416	1,099	2,048	1,323	1,284
Number of New Issuers	-	-	-	-	-	1	-	-	-	1

For the Polish issuer community a placement is considered public when there is one external lead involved and not at least two as per the underlying definition of the Fact Book. This is the reason why there is a discrepancy between the Fact Book and Covered Bond Label statistics for Poland.

5.2.27 PORTUGAL

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	1,400	1,400	1,300	1,200	400	500	500	600	600	600
Mortgage	27,690	33,248	34,321	36,016	33,711	34,461	32,970	35,530	35,795	36,600
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Public Placement										
Benchmark (1bn and above)	17,900	15,358	11,550	9,706	8,656	6,906	4,500	5,000	5,000	5,000
Benchmark (500mio - below 1bn)	-	-	-	750	1,500	3,000	3,000	3,750	3,000	2,500
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	11,190	19,290	24,071	26,760	23,955	25,055	25,970	27,380	28,395	29,700
Total	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Denominated in EURO	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Hard Bullet	300	300	300	300	300	300	-	-	-	-
Soft Bullet	28,790	34,348	35,321	36,916	33,811	30,961	27,020	29,630	29,895	29,400
Conditional Pass Through	-	-	-	-	-	3,700	6,450	6,500	6,500	7,800
Total	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Outstanding fixed coupon	17,960	15,418	11,610	10,516	10,966	11,466	10,260	12,970	12,200	12,800
Outstanding floating coupon	11,130	19,230	24,011	26,700	23,145	23,495	23,210	23,160	24,195	24,400
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	29,090	34,648	35,621	37,216	34,111	34,961	33,470	36,130	36,395	37,200
Number of Programmes	9	11	11	11	10	11	10	9	7	7
Number of Issuers	7	9	9	9	9	9	8	8	7	6

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	250	-	-	-	-	100	150	350	-	-
Mortgage	11,570	8,450	4,850	4,500	3,825	8,675	5,950	8,200	2,350	4,800
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Public Placement										
Benchmark (1bn and above)	3,000	-	-	-	1,000	1,000	-	3,000	-	-
Benchmark (500mio - below 1bn)	-	-	-	750	1,500	750	-	750	-	1,000
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	8,820	8,450	4,850	3,750	1,325	7,025	6,100	4,800	2,350	3,800
Total	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Denominated in EURO	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	11,820	8,450	4,850	4,000	3,825	4,575	4,350	7,550	2,350	3,000
Conditional Pass Through	-	-	-	500	-	4,200	1,750	1,000	-	1,800
Total	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Issuance fixed coupon	3,040	-	-	750	3,250	2,500	3,700	5,500	-	2,100
Issuance floating coupon	8,780	8,450	4,850	3,750	575	6,275	2,400	3,050	2,350	2,700
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	11,820	8,450	4,850	4,500	3,825	8,775	6,100	8,550	2,350	4,800
Number of New Issuers	1	2	-	-	-	-	-	-	-	-

5.2.28 SINGAPORE

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total Outstanding	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	919	949	834	1,092	1,113
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,014	4,644	6,611	7,783
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	98	763	94
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	3,250	5,250	5,250
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,463	2,326	3,216	3,740
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Outstanding fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,449	4,598	6,871	7,347
Outstanding floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	-	514	977	1,596	1,643
Outstanding other	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,963	5,576	8,466	8,990
Number of Programmes	n.a.	n.a.	n.a.	n.a.	n.a.	1	2	3	3	3
Number of Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	1	2	3	3	3

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total Issuance	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	919	-	-	1,092	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	-	1,014	3,656	2,000	914
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	98	671	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	2,750	2,000	-
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	919	514	1,003	1,762	914
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Issuance fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	919	500	3,265	3,092	445
Issuance floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	-	514	489	671	469
Issuance other	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	919	1,014	3,753	3,762	914
Number of New Issuers	-	-	-	-	-	1	1	1	-	-

5.2.29 SLOVAKIA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	-	-	-	2,000
Others (below 500Mio)	n.a.	n.a.	1,606	1,477	1,197	927	-	-	-	1,050
Private Placement	n.a.	n.a.	2,229	2,590	2,742	3,271	4,197	5,118	4,858	3,608
Total	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Denominated in EURO	3,350	3,625	3,680	3,925	3,814	4,094	4,076	5,036	4,810	6,658
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	92	143	155	142	124	104	121	82	48	-
Total	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Hard Bullet	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,058	3,608
Soft Bullet	-	-	-	-	-	-	-	-	800	3,050
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Outstanding fixed coupon	1,571	1,886	2,224	2,611	2,754	3,262	3,197	4,235	4,372	6,358
Outstanding floating coupon	1,871	1,882	1,606	1,451	1,185	936	995	883	486	300
Outstanding other	-	-	5	5	-	-	5	-	-	-
Total	3,442	3,768	3,835	4,067	3,939	4,198	4,197	5,118	4,858	6,658
Number of Programmes	n.a.	n.a.	n.a.	8	8	8	8	6	6	6
Number of Issuers	8	8	8	8	8	8	8	6	6	6

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	-	-	-	-	-	-	-	2,000
Others (below 500Mio)	n.a.	n.a.	248	167	154	-	-	-	-	250
Private Placement	n.a.	n.a.	537	674	500	1,159	751	1,316	800	-
Total	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Denominated in EURO	1,179	820	735	815	654	1,159	685	1,316	800	2,250
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	47	50	26	-	-	66	-	-	-
Total	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Hard Bullet	1,179	867	785	841	654	1,159	751	1,316	-	-
Soft Bullet	-	-	-	-	-	-	-	-	800	2,250
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Issuance fixed coupon	349	414	703	757	585	940	690	1,316	800	2,250
Issuance floating coupon	830	452	77	84	69	219	56	-	-	-
Issuance other	-	-	5	-	-	-	5	-	-	-
Total	1,179	867	785	841	654	1,159	751	1,316	800	2,250
Number of New Issuers	-	-	-	-	-	-	-	-	-	-

5.2.30 SOUTH KOREA

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183
Public Placement										
Benchmark (1bn and above)	773	773	758	725	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	347	721	758	1,088	1,235	1,837	2,372	2,501	2,684	3,226
Others (below 500Mio)	-	-	-	-	-	-	118	117	-	-
Private Placement	-	677	891	723	113	117	-	-	87	2,957
Total	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183
Denominated in EURO	-	-	-	-	-	-	-	-	500	1,000
Denominated in domestic currency	-	527	740	723	113	117	118	117	-	2,869
Denominated in other currencies	1,120	1,644	1,667	1,813	1,235	1,837	2,372	2,501	2,271	2,314
Total	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,618	2,771	6,183
Hard Bullet	1,120	2,171	2,407	2,536	1,349	1,495	1,541	1,785	1,810	5,204
Soft Bullet	-	-	-	-	-	459	949	833	961	979
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,618	2,771	6,183
Outstanding fixed coupon	1,120	2,021	2,255	2,536	1,349	1,954	2,490	2,619	2,771	6,183
Outstanding floating coupon	-	150	152	-	-	-	-	-	-	-
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	1,120	2,171	2,407	2,536	1,349	1,954	2,490	2,619	2,771	6,183
Number of Programmes	2	2	2	2	1	2	2	2	2	5
Number of Issuers	2	2	2	2	1	2	2	2	2	5

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	347	1,051	178	466	-	919	949	417	587	3,369
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	347	1,051	178	466	-	919	949	417	587	3,369
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	347	374	-	363	-	919	949	417	500	500
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	-	677	178	103	-	-	-	-	87	2,869
Total	347	1,051	178	466	-	919	949	417	587	3,369
Denominated in EURO	-	-	-	-	-	-	-	-	500	500
Denominated in domestic currency	-	527	178	466	-	-	-	-	-	2,869
Denominated in other currencies	347	524	-	-	-	919	949	417	87	-
Total	347	1,051	178	466	-	919	949	417	587	3,369
Hard Bullet	347	1,051	178	466	-	459	474	417	500	3,369
Soft Bullet	-	-	-	-	-	459	474	-	87	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	347	1,051	178	466	-	919	949	417	587	3,369
Issuance fixed coupon	347	901	178	466	-	919	949	417	587	3,369
Issuance floating coupon	-	150	-	-	-	-	-	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	347	1,051	178	466	-	919	949	417	587	3,369
Number of New Issuers	1	-	-	-	-	1	-	-	-	3

5.2.31 SPAIN

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	19,098	32,657	33,609	30,352	25,495	28,505	26,887	23,862	18,362	20,763
Mortgage	343,401	369,208	406,736	334,572	282,568	252,383	232,456	216,498	211,753	220,767
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	1,500	-
Total Outstanding	362,499	401,865	440,345	364,924	308,063	280,888	259,344	240,360	231,615	241,530
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	243,207	211,343	172,344	156,845	129,777	107,096	96,706	89,506
Benchmark (500mio - below 1bn)	n.a.	n.a.	11,850	14,098	10,714	11,690	12,190	10,190	9,850	4,410
Others (below 500Mio)	n.a.	n.a.	200	-	-	-	-	-	-	5,000
Private Placement	n.a.	n.a.	185,088	139,483	125,006	120,882	117,376	124,574	125,059	142,614
Total	362,499	401,865	440,345	364,924	308,063	289,417	259,344	241,860	231,615	241,530
Denominated in EURO	361,751	401,092	438,641	363,731	306,522	279,969	258,395	241,860	231,615	241,530
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	748	773	1,703	1,193	1,541	919	949	-	-	-
Total	362,499	401,865	440,345	364,924	308,063	280,888	259,344	241,860	231,615	241,530
Hard Bullet	362,499	401,865	440,345	364,924	308,063	280,888	259,344	241,860	231,615	241,530
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	362,499	401,865	440,345	364,924	308,063	280,888	259,344	241,860	231,615	241,530
Outstanding fixed coupon	310,499	343,067	311,719	260,831	200,975	181,033	160,646	138,141	126,806	127,707
Outstanding floating coupon	52,000	58,797	128,625	103,631	107,088	99,855	98,698	103,299	104,450	113,823
Outstanding other	-	-	-	462	-	-	-	421	359	-
Total	362,499	401,865	440,345	364,924	308,063	280,888	259,344	241,860	231,615	241,530
Number of Programmes	n.a.	n.a.	n.a.	40	39	40	35	33	31	29
Number of Issuers	59	64	38	32	31	31	28	26	24	23

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	5,900	20,334	6,407	5,895	1,853	10,400	7,250	350	800	800
Mortgage	51,916	72,077	98,846	22,919	23,038	31,375	31,393	30,000	19,935	19,435
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	7,200	7,000	8,250	15,000	11,536	2,600	3,625	5,750
Benchmark (500mio - below 1bn)	n.a.	n.a.	3,600	4,840	500	4,750	2,000	-	1,500	750
Others (below 500Mio)	n.a.	n.a.	-	-	-	-	-	-	-	500
Private Placement	n.a.	n.a.	94,453	16,974	16,141	22,025	25,107	27,750	15,610	13,235
Total	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Denominated in EURO	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Hard Bullet	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Issuance fixed coupon	50,891	52,507	27,559	16,169	8,800	23,837	25,043	10,198	5,821	7,760
Issuance floating coupon	6,925	39,904	77,694	12,445	16,091	17,938	13,600	20,152	14,914	12,475
Issuance other	-	-	-	200	-	-	-	-	-	-
Total	57,816	92,411	105,253	28,814	24,891	41,775	38,643	30,350	20,735	20,235
Number of New Issuers	2	1	3	-	-	2	-	-	-	1

Source: AIAF, Bloomberg, Reuters, Moody's, Fitch, S&P, ECBC

Note: Please note that the breakdown public vs private placements is an estimation made by the ECBC.

Please also note that the methodology used for counting the number of issuers has changed. Until 2011, the number of "new issuers" included the new financial institutions established as part of the restructuring of the Spanish banking sector whose inaugural issue occurred during the year of reporting. The number of issuers also included all the former financial institutions with outstanding covered bonds at the end of each year – even if, as a consequence of the aforementioned restructuring, they were integrated into a new one – along with the new institutions. From 2012 onwards, however, only the new entities are reported as active issuers.

5.2.32 SWEDEN

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	175,163	173,333	163,281	172,823	177,385	173,105	171,336	185,661
Benchmark (500mio - below 1bn)	n.a.	n.a.	8,234	10,775	12,149	14,836	13,623	16,212	18,046	20,876
Others (below 500Mio)	n.a.	n.a.	29,055	26,071	26,047	24,859	22,918	23,432	18,117	18,312
Private Placement	n.a.	n.a.	7,921	7,676	8,364	9,472	8,518	6,463	10,481	10,262
Total	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Denominated in EURO	35,697	37,554	39,995	39,423	36,108	37,931	38,224	39,094	43,610	47,301
Denominated in domestic currency	144,969	159,628	164,501	161,651	156,791	165,682	167,831	165,874	164,307	178,854
Denominated in other currencies	8,085	11,712	15,878	16,780	16,942	18,377	16,389	14,244	10,062	8,956
Total	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Hard Bullet	188,750	208,894	220,374	217,854	208,848	216,945	214,177	207,424	203,566	217,145
Soft Bullet	-	-	-	-	993	5,045	8,267	11,788	14,413	17,966
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Outstanding fixed coupon	172,693	191,013	198,372	195,770	187,395	200,034	201,061	199,424	200,840	215,500
Outstanding floating coupon	16,013	17,659	21,778	22,055	22,432	21,956	21,383	19,788	17,139	19,611
Outstanding other	45	222	224	29	14	-	-	-	-	-
Total	188,750	208,894	220,374	217,854	209,842	221,990	222,444	219,212	217,979	235,111
Number of Programmes	n.a.	n.a.	n.a.	10	10	9	10	10	12	12
Number of Issuers	7	7	7	8	8	8	8	8	10	10

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	37,148	35,519	34,881	47,756	37,508	30,206	34,876	34,618
Benchmark (500mio - below 1bn)	n.a.	n.a.	92	6,753	5,989	5,608	7,360	7,766	10,715	8,140
Others (below 500Mio)	n.a.	n.a.	10,078	8,276	5,883	6,410	6,895	10,315	6,027	9,241
Private Placement	n.a.	n.a.	1,620	1,086	1,672	955	424	237	2,582	1,258
Total	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Denominated in EURO	20,797	13,263	2,485	5,745	6,531	10,066	7,065	11,689	5,620	7,814
Denominated in domestic currency	55,117	52,118	41,971	41,220	39,866	47,364	43,741	34,981	46,375	44,388
Denominated in other currencies	3,997	4,419	4,481	4,668	2,027	3,299	1,381	1,855	2,204	1,055
Total	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Hard Bullet	79,910	69,800	48,936	51,633	47,464	56,642	50,005	44,881	50,571	49,125
Soft Bullet	-	-	-	-	960	4,087	2,182	3,643	3,628	4,134
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Issuance fixed coupon	68,023	53,137	38,294	42,949	41,346	54,618	46,046	44,358	47,056	46,947
Issuance floating coupon	11,888	16,562	10,642	8,684	7,077	6,111	6,141	4,166	7,143	6,311
Issuance other	-	102	-	-	-	-	-	-	-	-
Total	79,910	69,800	48,936	51,633	48,424	60,729	52,187	48,525	54,199	53,258
Number of New Issuers	-	-	-	1	-	-	-	-	2	-

Note: In the Swedish domestic market it is common practice to tap issue and to buy back issuances if the bond has a maturity of less than 12-18 months. In order to best represent the liquidity of the market, tapped issuance which per ECBC definition fall under private placement have been considered as public placement according to the benchmark of their yearly cumulative issuance and their size of outstanding volume. This explains the discrepancy between the figures of the Fact Book and the Covered Bond Label.

5.2.33 SWITZERLAND

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Outstanding CBs - Pfandbriefe	58,046	60,729	67,652	71,716	78,468	95,940	105,012	101,962	110,556	120,798
Outstanding CBs - Structured	7,000	11,152	18,055	17,348	21,967	15,602	12,553	9,670	8,867	7,450
Total Outstanding	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	17,926	17,120	21,133	14,898	11,500	8,750	7,500	4,750
Benchmark (500mio - below 1bn)	n.a.	n.a.	23,839	6,218	40,767	60,457	64,107	59,627	74,316	83,100
Others (below 500Mio)	n.a.	n.a.	35,986	61,351	37,701	35,483	41,247	42,549	37,505	39,727
Private Placement	n.a.	n.a.	7,956	4,376	834	704	710	706	101	671
Total	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
Denominated in EURO	7,000	10,250	13,000	11,500	15,350	13,100	12,100	9,350	8,101	5,350
Denominated in domestic currency	58,046	60,729	67,652	71,716	78,468	95,940	105,012	102,176	111,221	122,827
Denominated in other currencies	-	902	5,055	5,848	6,617	2,502	453	106	100	71
Total	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	105,464	102,068	111,256	123,648
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	12,100	9,564	8,167	4,600
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
Outstanding fixed coupon	65,046	71,752	85,707	89,064	100,312	111,542	117,564	111,632	119,422	128,248
Outstanding floating coupon	-	-	-	-	124	-	-	-	-	-
Outstanding other	-	129	-	-	-	-	-	-	-	-
Total	65,046	71,881	85,707	89,064	100,436	111,542	117,564	111,632	119,422	128,248
Number of Programmes	n.a.	n.a.	n.a.	4	4	4	4	5	5	6
Number of Issuers	4	4	4	4	4	4	4	5	5	6

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
New Issues of CBs - Pfandbriefe	10,834	11,227	12,804	12,568	13,343	15,840	16,106	12,708	13,282	14,022
New Issues of CBs - Structured	4,000	4,152	6,919	1,015	5,850	-	-	214	444	1,338
Total Issuance	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	6,919	906	5,250	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	2,394	2,171	4,562	8,822	3,850	2,437	2,983	2,036
Others (below 500Mio)	n.a.	n.a.	10,410	10,397	8,782	7,018	12,256	10,485	10,742	13,324
Private Placement	n.a.	n.a.	-	109	600	-	-	-	-	-
Total	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
Denominated in EURO	4,000	3,250	2,750	-	5,850	-	-	-	-	-
Denominated in domestic currency	10,834	11,227	12,804	12,568	13,343	15,840	16,106	12,922	13,725	15,360
Denominated in other currencies	-	902	4,169	1,015	-	-	-	-	-	-
Total	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16,106	12,708	13,282	14,022
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	214	444	1,338
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
Issuance fixed coupon	14,834	15,250	19,723	13,474	19,193	15,840	16,106	12,922	13,725	15,360
Issuance floating coupon	-	-	-	109	-	-	-	-	-	-
Issuance other	-	129	-	-	-	-	-	-	-	-
Total	14,834	15,379	19,723	13,583	19,193	15,840	16,106	12,922	13,725	15,360
Number of New Issuers	1	-	-	-	-	-	-	1	-	-

Note: from 2008 only Limmat bonds are considered as "Private Placements"

5.2.34 TURKEY

Outstanding (in EUR million)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Total Covered Bonds Outstanding										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	1,967
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total Outstanding	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	500	-	500
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	128	128	1,423	2,334	1,467
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	1,967
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	500	500	500
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	128	128	1,423	1,834	1,467
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	1,967
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	68	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,266	1,967
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	
Outstanding fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	1,967
Outstanding floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Outstanding other	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	628	1,923	2,334	1,967
Number of Programmes	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	4	6	7
Number of Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	4	6	7

Issuance (in EUR million)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Total Covered Bonds Issuance										
Public Sector	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Mortgage	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Ships	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Others	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total Issuance	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Public Placement										
Benchmark (1bn and above)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Benchmark (500mio - below 1bn)	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	-	-	-
Others (below 500Mio)	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	256
Private Placement	n.a.	n.a.	n.a.	n.a.	n.a.	128	-	1,334	766	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Denominated in EURO	n.a.	n.a.	n.a.	n.a.	n.a.	-	500	-	-	-
Denominated in domestic currency	n.a.	n.a.	n.a.	n.a.	n.a.	128	-	1,334	766	256
Denominated in other currencies	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	68	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	698	256
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Issuance fixed coupon	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Issuance floating coupon	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Issuance other	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-	-
Total	n.a.	n.a.	n.a.	n.a.	n.a.	128	500	1,334	766	256
Number of New Issuers	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	2	2	1

5.2.35 UNITED KINGDOM

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Regulated - Mortgages	125,250	121,623	147,425	114,395	114,654	106,674	97,127	89,509	93,530	108,857
Regulated - Public Sector	-	-	-	-	-	-	-	-	-	-
Non-regulated - Mortgages	77,965	63,429	37,818	18,077	16,143	8,236	-	-	-	-
Non-regulated - Public Sector	3,548	3,656	3,742	5,784	6,152	6,358	4,894	4,697	4,662	705
Total Outstanding	206,763	188,707	188,985	138,255	136,949	121,268	102,021	94,206	98,192	109,562
Public Placement										
Benchmark (1bn and above)	171,202	147,473	148,608	112,064	107,687	93,997	75,733	70,229	72,312	87,503
Benchmark (500mio - below 1bn)	27,738	29,424	27,127	13,341	16,995	10,233	9,546	7,548	11,457	12,164
Others (below 500Mio)	6,643	9,231	9,137	8,637	7,948	971	280	248	-	-
Private Placement	1,180	2,580	4,113	4,213	4,319	16,068	16,462	16,181	14,423	9,895
Total	206,763	188,707	188,985	138,255	136,949	121,268	102,021	94,206	98,192	109,562
Denominated in EURO	81,475	102,084	118,667	84,633	77,968	67,651	57,703	55,876	56,426	58,096
Denominated in domestic currency	115,625	76,905	61,012	44,957	50,972	47,613	38,532	36,977	40,482	48,854
Denominated in other currencies	9,663	9,718	9,306	8,665	8,009	6,004	5,786	1,353	1,284	2,612
Total	206,763	188,707	188,985	138,255	136,949	121,268	102,021	94,206	98,192	109,562
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7,508	5,331	2,581	2,581
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	91,028	85,531	92,291	106,981
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,485	3,344	3,320	-
Total	206,763	188,707	188,985	138,255	136,949	121,268	102,021	94,206	98,192	109,562
Outstanding fixed coupon	83,820	111,426	123,888	106,995	101,816	91,567	78,951	72,038	71,144	74,833
Outstanding floating coupon	122,943	77,282	65,097	31,260	35,133	29,701	23,070	22,168	27,048	34,729
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	206,763	188,707	188,985	138,255	136,949	121,268	102,021	94,206	98,192	109,562
Number of Programmes	n.a.	n.a.	n.a.	18	17	16	14	14	14	15
Number of Issuers	20	16	15	17	16	15	12	12	13	14

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Regulated - Mortgages	25,000	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Regulated - Public Sector	-	-	-	-	-	-	-	-	-	-
Non-regulated - Mortgages	900	-	-	-	-	-	-	-	-	-
Non-regulated - Public Sector	-	-	-	-	-	-	-	-	-	-
Total Issuance	25,900	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Public Placement										
Benchmark (1bn and above)	15,412	20,190	22,921	1,000	9,135	11,540	6,701	10,013	12,224	19,629
Benchmark (500mio - below 1bn)	6,603	9,659	9,432	-	2,892	2,159	1,381	1,500	2,662	2,850
Others (below 500Mio)	2,706	5,734	3,222	380	396	409	-	-	-	-
Private Placement	1,180	1,400	1,534	100	106	907	1,517	50	30	480
Total	25,900	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Denominated in EURO	22,095	27,211	20,024	1,480	6,406	8,135	6,833	4,800	4,030	7,620
Denominated in domestic currency	2,788	8,290	15,041	-	6,123	6,880	2,766	6,763	10,231	13,989
Denominated in other currencies	1,018	1,482	2,044	-	-	-	-	-	655	1,350
Total	25,900	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Hard Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Soft Bullet	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9,599	11,563	14,916	22,959
Conditional Pass Through	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-	-	-	-
Total	25,900	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Issuance fixed coupon	20,542	35,102	17,991	1,200	6,406	8,816	6,808	4,800	4,685	8,970
Issuance floating coupon	5,359	1,881	19,118	280	6,123	6,199	2,791	6,763	10,231	13,989
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	25,900	36,983	37,109	1,480	12,529	15,015	9,599	11,563	14,916	22,959
Number of New Issuers	1	-	-	-	-	-	-	1	1	1

Note: There are 14 Regulated issuers each with one Regulated residential mortgage programme (two regulated issuers also have unregulated programmes).
Please refer to the FCA's website for more details of the Regulted issues (http://www.fca.org.uk/firms/systems-reporting/regulated-covered-bonds-register).

5.2.36 UNITED STATES

Outstanding (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Outstanding										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Outstanding	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Public Placement										
Benchmark (1bn and above)	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Denominated in EURO	10,000	8,000	6,000	6,000	4,000	4,000	2,000	-	-	-
Denominated in domestic currency	1,497	1,546	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Outstanding fixed coupon	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Outstanding floating coupon	-	-	-	-	-	-	-	-	-	-
Outstanding other	-	-	-	-	-	-	-	-	-	-
Total	11,497	9,546	6,000	6,000	4,000	4,000	2,000	-	-	-
Number of Programmes	2	2	2	2	2	2	1	-	-	-
Number of Issuers	2	2	2	2	2	2	2	-	-	-

Issuance (in EUR million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Covered Bonds Issuance										
Public Sector	-	-	-	-	-	-	-	-	-	-
Mortgage	-	-	-	-	-	-	-	-	-	-
Ships	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-
Total Issuance	-	-	-	-	-	-	-	-	-	-
Public Placement										
Benchmark (1bn and above)	-	-	-	-	-	-	-	-	-	-
Benchmark (500mio - below 1bn)	-	-	-	-	-	-	-	-	-	-
Others (below 500Mio)	-	-	-	-	-	-	-	-	-	-
Private Placement	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Denominated in EURO	-	-	-	-	-	-	-	-	-	-
Denominated in domestic currency	-	-	-	-	-	-	-	-	-	-
Denominated in other currencies	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Hard Bullet	-	-	-	-	-	-	-	-	-	-
Soft Bullet	-	-	-	-	-	-	-	-	-	-
Conditional Pass Through	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Issuance fixed coupon	-	-	-	-	-	-	-	-	-	-
Issuance floating coupon	-	-	-	-	-	-	-	-	-	-
Issuance other	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Number of New Issuers	-	-	-	-	-	-	-	-	-	-

5.2.37 ANNEX: EUROPEAN CENTRAL BANK EXCHANGE RATES WITH THE EURO, YEAR END

	Australian dollar	Brazilian real	Canadian dollar	Swiss franc	Czech koruna	Danish krone	UK pound sterling
2004	1.7459	3.6201	1.6416	1.5429	30.464	7.4388	0.70505
2005	1.6109	2.7462	1.3725	1.5551	29	7.4605	0.6853
2006	1.6691	2.8141	1.5281	1.6069	27.485	7.456	0.6715
2007	1.6757	2.5914	1.4449	1.6547	26.628	7.4583	0.73335
2008	2.0274	3.2436	1.6998	1.485	26.875	7.4506	0.9525
2009	1.6008	2.5113	1.5128	1.4836	26.473	7.4418	0.8881
2010	1.3136	2.2177	1.3322	1.2504	25.061	7.4535	0.86075
2011	1.2723	2.4159	1.3215	1.2156	25.787	7.4342	0.8353
2012	1.2712	2.7036	1.3137	1.2072	25.151	7.461	0.8161
2013	1.5423	3.2576	1.4671	1.2276	27.427	7.4593	0.8337
2014	1.4829	3.2207	1.4063	1.2024	27.735	7.4453	0.7789
2015	1.4897	4.3117	1.5116	1.0835	27.023	7.4626	0.73395
2016	1.4596	3.4305	1.4188	1.0739	27.021	7.4344	0.85618
2017	1.5346	3.9729	1.5039	1.1702	25.535	7.4449	0.88723
2018	1.622	4.444	1.5605	1.1269	25.724	7.4673	0.89453
2019	**1.5995**	**4.5157**	**1.4598**	**1.0854**	**25.408**	**7.4715**	**0.8508**

	Hong Kong dollar	Hungarian forint	Iceland krona	Japanese yen	Korean won (Republic)	Lithuanian litas	Latvian lats
2004	10.5881	245.97	83.6	139.65	1410.05	3.4528	0.6979
2005	9.1474	252.87	74.57	138.9	1184.42	3.4528	0.6962
2006	10.2409	251.77	93.13	156.93	1224.81	3.4528	0.6972
2007	11.48	253.73	91.9	164.93	1377.96	3.4528	0.6964
2008	10.7858	266.7	250*	126.14	1839.13	3.4528	0.7083
2009	11.1709	270.42	179.48*	133.16	1666.97	3.4528	0.7093
2010	10.3856	277.95	153.78*	108.65	1499.06	3.4528	0.7094
2011	10.051	314.58	159*	100.2	1498.69	3.4528	0.6995
2012	10.226	292.3	168.91*	113.61	1406.23	3.4528	0.6977
2013	10.6933	297.04	158.29**	144.72	1450.93	3.4528	0.7028
2014	9.417	315.54	154.31**	145.23	1324.8	3.4528	1.000
2015	8.4376	315.98	141.38**	131.07	1280.8	1.000	1.000
2016	8.1751	309.83	119.15**	123.4	1269.36	1.000	1.000
2017	9.372	310.33	124.30**	135.01	1279.61	1.000	1.000
2018	8.9675	320.98	127.89	125.85	1277.93	1.000	1.000
2019	**8.7473**	**330.53**	**137.28**	**121.94**	**1296.28**	**1.000**	**1.000**

* Bloomberg "Compound New York" Rates, ** Bloomberg "Bloomberg Generic Pricing (BGN)" Rates (On December 10, 2008, the European Central Bank has stopped publishing foreign exchange reference rates of the Icelandic Krόna, but it resumed on February 2018).

	Norwegian krone	New Zealand dollar	Polish zloty	Swedish krona	Singapore dollar	Turkish lira	US dollar
2004	8.2365	1.8871	4.0845	9.0206	2.2262	1836200	1.3621
2005	7.985	1.727	3.86	9.3885	1.9628	1.5924	1.1797
2006	8.238	1.8725	3.831	9.0404	2.0202	1.864	1.317
2007	7.958	1.9024	3.5935	9.4415	2.1163	1.717	1.4721
2008	9.75	2.4191	4.1535	10.87	2.004	2.1488	1.3917
2009	8.3	1.9803	4.1045	10.252	2.0194	2.1547	1.4406
2010	7.8	1.72	3.975	8.9655	1.7136	2.0694	1.3362
2011	7.754	1.6737	4.458	8.912	1.6819	2.4432	1.2939
2012	7.3483	1.6045	4.074	8.582	1.6111	2.3551	1.3194
2013	8.363	1.6762	4.1543	8.8591	1.7414	2.9605	1.3791
2014	9.042	1.5525	4.2732	9.393	1.6058	2.832	1.2141
2015	9.603	1.5923	4.2639	9.1895	1.5417	3.1765	1.0887
2016	9.0863	1.5158	4.4103	9.5525	1.5234	3.7072	1.0541
2017	9.8403	1.685	4.177	9.8438	1.6024	4.5464	1.1993
2018	9.9483	1.7056	4.3014	10.2548	1.5591	6.0588	1.145
2019	**9.8638**	**1.6653**	**4.2568**	**10.4468**	**1.5111**	**6.6843**	**1.1234**

Source: European Central Bank (ECB), Statistics Data Warehouse.

Note: The Euro is the denominator.

Note: The exchange rate protocol used for ECBC covered bond statistics is to take the ECB bilateral exchange rate on the last business day of the year.

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