

Covered Bonds on Bloomberg

Market Screening and Relative Value

Bloomberg

EMF-ECBC Academy Training Sessions
Athens
29. April 2025

Speaker



Rene Foertsch

DACH Credit Market Specialist

Bloomberg

Agenda

- 01** Market Screening - Finding Covered Bonds on Bloomberg
- 02** Market Trends - Issuance Current vs. Historical
- 03** Primary Markets, News & Covered Bond Indices
- 04** (Custom) LEAG Tables
- 05** Covered Bond datasets
- 06** Relative Value - Comparing Bonds in the live market
- 07** Relative Value - Covered Bond curves

Actions

Settings

Fixed Income Search

Build/Edit Search

My Searches

Example Searches

Build with Criterion

Build by Merging Saved Searches

As of 04/25/2025 Additional Options 2/6 Selected COVERED BONDS IN EUR

Instruments Corporates, Governments Edit 3,493,638 Instruments

Sources No Sources Edit

Field

Boundaries

Selected Criteria

Matches

Security Status

Include

Bonds: Active

452,137

And Currency

Include

(Euro Currency)

106,171

And Is Covered

--

Yes

4,370

And

Fields

4,370 Instruments 1) Results Copy BQL Formula

SRCH COVERED BONDS IN EUR

SRCH <GO>

Easy Start:

Finding Covered Bonds on Bloomberg

Actions

Export

Settings

Copy BQL Formula

Fixed Income Search: Results

Search Name Unsaved Search

Currency EUR (As of Issue Date)

Results

Matrix

Rank

Holders Matrix

Holders

All (4,370)

Bonds (4,370)

Loans (0)

Preferreds (0)

Municipals (0)

Mortgages (0)

Indices (0)

Curves (0)

Money Markets (Globals) (0)

FI ETF (0)

Add column Edit Statistics Group by None 4,370 of 4,370 Securities

R	Issuer Name	ISIN	Issue Date	Cpn	Amt Issued	Maturity	ECBC Covered	Collat Des	Currency
					>200MM				
1)	Caisse de Refinancement de l'Habitat SA	FR001400Z2F9	04/25/2025	3.000	750.00MM	04/25/2033	Yes	Mortgages	EUR
2)	BPCE SFH SA	FR001400YWH8	04/24/2025	2.625	1.25MM	07/24/2030	Yes	Mortgages	EUR
3)	Crelan Home Loan SCF	FR001400YNX4	04/22/2025	3.053	750.00MM	04/22/2031	Yes	Mortgages	EUR
4)	Caisse Francaise de Financement Local SA	FR001400YWV9	04/17/2025	3.250	1.00MM	04/17/2035	Yes	Public Loans	EUR
5)	Danske Bank A/S	XS3053408392	04/14/2025	2.650	500.00MM	04/12/2030	No	Mortgages	EUR
6)	Aareal Bank AG	DE000A4MS0T5	04/11/2025	2.798	500.00MM	10/15/2031	No	Mortgages	EUR
7)	Oversea-Chinese Banking Corp Ltd	XS3047435493	04/10/2025	2.481	500.00MM	04/10/2028	Yes	Mortgages	EUR
8)	DZ HYP AG	DE000A3825Q0	04/09/2025	2.500	500.00MM	08/31/2029	Yes	Mortgages	EUR
9)	DZ HYP AG	DE000A3825R8	04/09/2025	3.000	500.00MM	02/28/2035	Yes	Mortgages	EUR
10)	Credit Agricole Home Loan SFH SA	FR001400YPD1	04/09/2025	3.000	1.25MM	07/09/2032	Yes	Mortgages	EUR
11)	OP Mortgage Bank	XS3047279776	04/09/2025	2.625	1.00MM	07/09/2030	Yes	Mortgages	EUR

Actions

Export

Settings

Copy BQL Formula

Fixed Income Search: Results

Search Name

Unsaved Search

Currency

EUR

(As of Issue Date)

Results

Matrix

Rank

Holders Matrix

Holders

All (4,370)

Bonds (4,370)

Loans (0)

Preferreds (0)

Municipals (0)

Mortgages (0)

Indices (0)

Curves (0)

Money Markets (Globals) (0)

FI ETF (0)

Add column

Edit

Statistics

Group by

None

4,370 of 4,370 Securities

R	Issuer Name	ISIN	Issue Date	Cpn	Amt Issued	Maturity	ECBC Covered	Collat Des	Currency
1)	Caisse de Refinancement de l'Habitat SA	FR00140022			>200MM				

SRCH Results:
Drill down into the data

Actions

Export

Settings

Fixed Income Search: Results

Unsaved Search

> Issue Date by Cntry of Risk (Sum of Amount Issued in MM)

Currency

EUR

(As of Issue Date)

Results

Matrix

Rank

Holders Matrix

Holders

Issue Date

Total

DE

AT

FR

NL

IT

DK

ES

CA

1) Total	1,056,742	185,597	60,344	284,368	102,671	74,387	8,500	69,750	63,162
2) 2025	114,580	22,681	4,850	18,969	19,500	10,400	1,500	2,750	1,500
3) 2024	279,059	47,715	12,968	68,535	28,565	30,177	2,000	19,100	14,075
4) 2023	363,796	56,442	22,676	139,374	19,500	17,100	3,500	23,550	18,769
5) 2022	299,307	58,759	19,851	57,490	35,106	16,710	1,500	24,350	28,818

Rows

Issue Date

Frequency

Yearly

Continuous Dates

Columns

Cntry of Risk

Column Values

Top 8

Custom Select

Cell is

Sum

of

Amt Issued

(MM)

Actions

Export

Settings

Fixed Income Search: Results

Unsaved Search

> Issue Date by Cntry of Risk

> 2025, Germany

Currency

EUR

(As of Issue Date)

Results

Matrix

Rank

Holders Matrix

Holders

All (51)

Bonds (51)

Loans (0)

Preferreds (0)

Municipals (0)

Mortgages (0)

Indices (0)

Curves (0)

Money Markets (Globals) (0)

FI ETF (0)

CDS...

Add column

Edit

Statistics

Group by

None

51 of 51 Securities

R	Issuer Name	Pricing Date	ISIN	Issue Date	Cpn	Amt Issued	Maturity	ECBC Covered	Collat Des
1)	Landesbank Saar	01/07/2025	DE000SLB1580	01/14/2025	2.500	75.00MM	01/14/2027	No	Mortgages
2)	Muenchener Hypothekbank eG	01/10/2025	DE000MHB4982	01/17/2025	2.460	100.00MM	02/17/2027	Yes	Mortgages
3)	Commerzbank AG	01/13/2025	DE000CZ45ZB8	01/20/2025	2.750	1.25MMM	12/20/2029	Yes	Mortgages
4)	Landesbank Baden-Wuerttemberg	01/08/2025	DE000LB4W647	01/20/2025	2.625	1.00MMM	02/20/2030	Yes	Mortgages
5)	Norddeutsche Landesbank-Girozentrale	01/09/2025	DE000NLB5AA6	01/20/2025	2.625	1.00MMM	10/20/2028	Yes	Mortgages
6)	Landesbank Baden-Wuerttemberg	01/14/2025	DE000LB4W7D8	01/20/2025	2.698	1.00MM	01/02/2027	No	Mortgages
7)	Bausparkasse Schwabach Hall AG	01/15/2025	DE000A4DFCH4	01/22/2025	2.875	500.00MM	01/22/2031	Yes	Mortgages
8)	Deutsche Pfandbriefbank AG	01/16/2025	DE000A382632	01/23/2025	2.875	750.00MM	01/24/2028	Yes	Mortgages

Security Status

Bonds

Loans

☒ Active
 ☒ Matured
 ☐ N.A.

☒ Active
 ☐ Matured
 ☐ N.A.

Close

Actions

Settings

Fixed Income Search

Build/Edit Search

My Searches

Example Searches

Build with Criterion

Build by Merging Saved Searches

As of

04/27/2025

Additional Options

2/6 Selected

COVERED BONDS ISSUED IN GERMANY SINCE 2016

Instruments

Corporates, Governments

Edit

3,494,813 Instruments

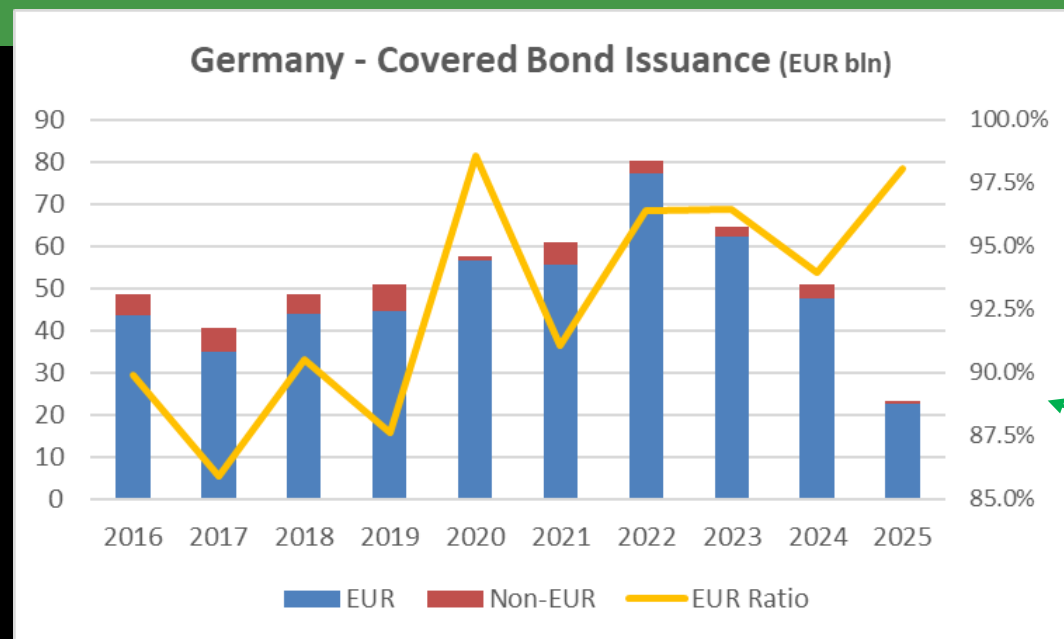
Sources

No Sources

Edit

Field	Boundaries	Selected Criteria	Matches	
Security Status	Include	Bonds: All	3,485,502	
And Country/Region of Risk	Include	(Germany)	636,178	
And Is Covered	--	Yes	18,327	
And Issue Date	>=	01/01/2016	2,042	
And				Fields

SRCH Results: Analyse Trends
(for History: consider already matured instruments)



Currency EUR (As of Issue Date)									
Results	Matrix	Rank	Holders Matrix	Holders					
All (2,042)	Bonds (2,042)	Loans (0)	Preferreds (0)	Municipals (0)	Mortgages (0)	Indices (0)	Curves (0)	Money Markets (Globals) (0)	FI ETF (0)
Add column	Edit	Statistics	Average	Group by	None				
R	Issuer Name	ISIN	Issue Date	Cpn	Amt Issued	Maturity	ECBC Covered	Collat Des	Currency
110	Muenchener Hypothekbank eG	DE000MHB2606	07/27/2016	0.010	183.19MM	07/27/2018	Yes	Mortgages	CHF
112	Hamburg Commercial Bank AG	DE000HSH5ZU6	07/27/2016	0.375	350.00MM	04/27/2023	No	Mortgages	EUR
113	Stadtsparkasse Essen	DE000A2BN6L9	07/27/2016	0.400	10.00MM	07/27/2026	No	Mortgages	EUR
114	Stadtsparkasse Essen	DE000A2BN6L9	07/27/2016	0.400	10.00MM	07/27/2026	No	Mortgages	EUR
115	UniCredit Bank GmbH	DE000HV2AMJ7	08/05/2016	0.090	3.00MM	08/05/2024	Yes	Mortgages	EUR
116	Bayerische Landesbank	XS1469412149	08/09/2016	1.375	270.20MM	08/09/2019	No	Mortgages	USD

Actions

Export

Settings

Copy BQL Formula

Fixed Income Search: Results

Unsaved Search

> Issue Date by Currency (Sum of Amount Issued in MM)

Currency

EUR

(As of Issue Date)

Results

Matrix

Rank

Holders Matrix

Holders

Issue Date	Total	EUR	USD	CHF	GBP	SEK
1) Total	525,607	489,135	19,284	6,606	8,533	2,048
2) 2025	23,141	22,691	280	--	--	170
3) 2024	50,796	47,716	2,171	--	390	518
4) 2023	64,667	62,386	1,393	305	583	--
5) 2022	80,070	77,197	2,126	700	--	47
6) 2021	60,925	55,492	1,885	1,441	1,911	197
7) 2020	57,419	56,587	--	246	549	38
8) 2019	51,044	44,727	3,678	1,925	362	352
9) 2018	48,567	43,966	1,120	1,067	2,224	190
10) 2017	40,554	34,839	2,981	647	1,550	537
11) 2016	48,425	43,535	3,650	276	964	--

20 Edit Matrix

Rows

Issue Date

Frequency

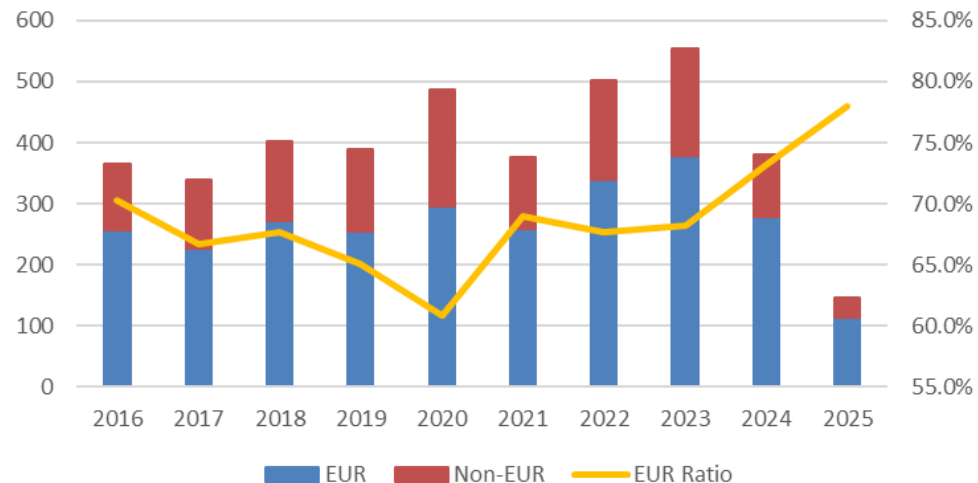
Yearly

Continuous Dates

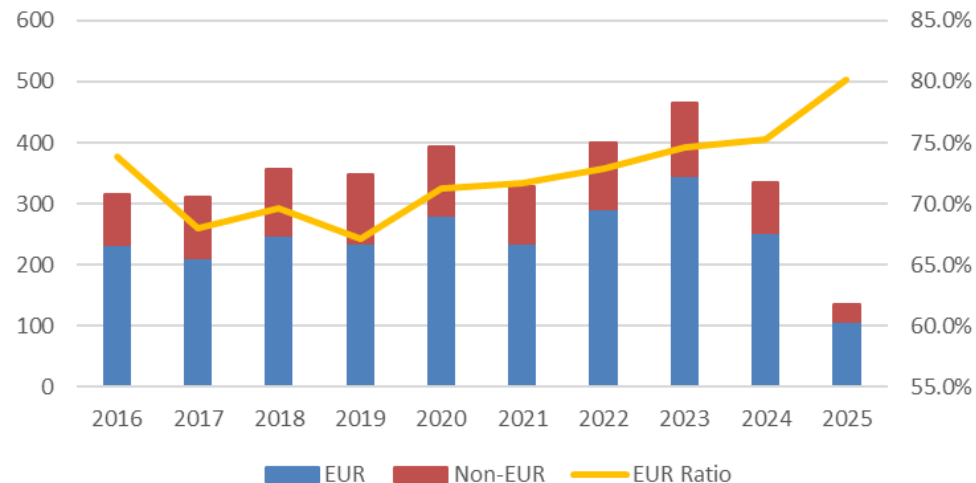
Columns

Currency

Global - Covered Bond Issuance (EUR bln)

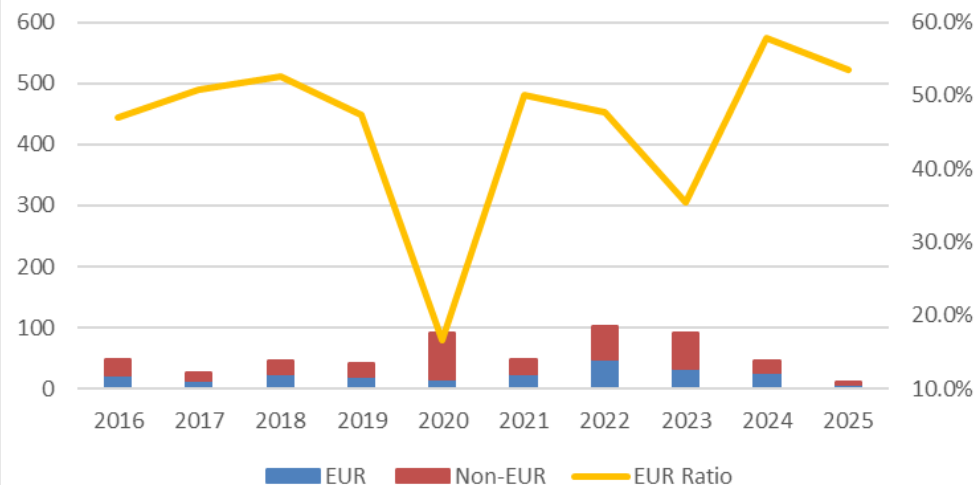


Europe - Covered Bond Issuance (EUR bln)

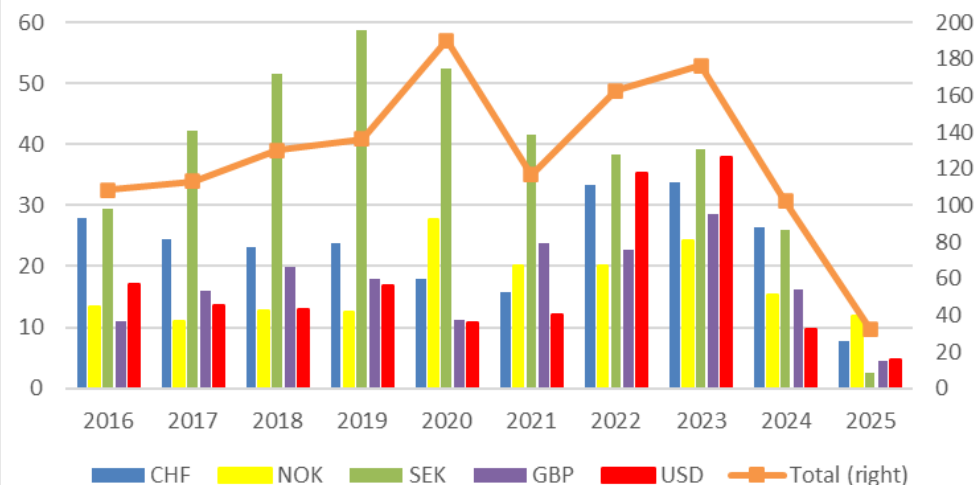


SRCH Results: Analyse Trends

Ex-Europe - Covered Bond Issuance (EUR bln)



Global - Non-EUR Covered Bond Issuance (EUR bln)



*excluding
DKK/Denmark

SRCH COVERED BONDS ISSUED IN EUROPE IN EUR

Actions ▾ **Settings** **Fixed Income Search**

Build/Edit Search My Searches Example Searches
Build with Criterion Build by Merging Saved Searches

As of 04/27/2025 Additional Options 2/6 Selected COVERED BONDS ISSUED IN EUROPE IN EUR

Instruments Corporates, Governments Edit 3,494,782 Instruments

Sources No Sources Edit

Field	Boundaries	Selected Criteria	Matches
Security Status	Include	Bonds: Active	450,910
And Currency	Include	(Euro Currency)	105,920
And Country/Region of Risk	Include	(Seborga or Vatican (Holy See) or United Kingdo...	85,814
And Is Covered	--	Yes	4,133
And		Fields	

4,133 Instruments

Additional Analysis Options

- SRCH Results
 - View Results
 - Maturity Distribution
- Holders & Debt Distribution
 - Debt Holders
 - Debt Distribution | DDIS »

Entity 1 Composite Entity #1 Period Current SRCH

Add/Edit comparison

Compare with self

Entity 2 Period Current SRCH

Restore Defaults

Debt Distribution: Edit Criteria

Build/Edit Search My Searches Example Searches
Build with Criterion Build by Merging Saved Searches

As of 04/27/2025 Additional Options Consolidate Duplicate Bonds

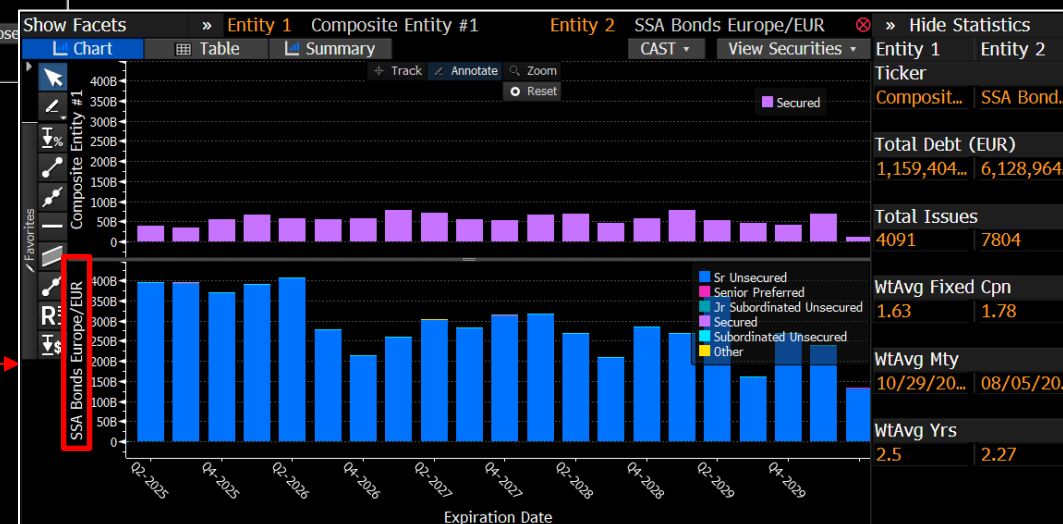
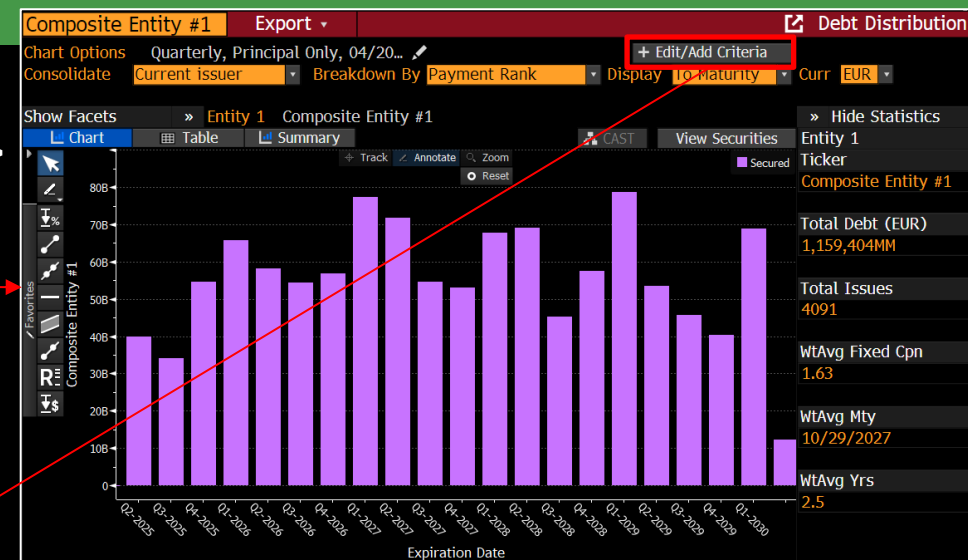
Instruments Corporates, Governments Edit 3,490,352 Instruments

Sources No Sources Edit

Field	Boundaries	Selected Criteria	Matches
Security Status	Include	Bonds: Active	450,521
And Advanced Search (Security)	Equal to	(((SRCH_ASSET_CLASS == "Corporates" OR ...	370,763
And		SSA BONDS ISSUED IN EUROPE IN EUR	Fields

Maturity Wall & Comparison vs SSA

DDIS <GO>



Actions ▾DirectoryExportSettings

Bloomberg Intelligence

<Search BI Research and Data>

Corporate Credit Dashboard (BI STRTE) Europe ☆

Research

- Dashboard Home
- Outlooks
- Key Themes
- Fundamentals
- Index Monthly
- Relative Value
- Flows

Structured

Media

Data Library

- BBG Indices
- Fundamentals
- Greenium
- Fund Flows
- HY Survey
- Lev Loans

Hear More From BI

European RCB Outlook - March 2025

101) Regulated Covered Bonds' Spread Compression Has Long-Term Legs

Regulated covered bonds' (RCB) compressed spread differentials are set to extend, both within the asset class and to neighboring asset classes. That's as issuance is squeezed in the short term by its status as a less-attractive funding source, and in the long term by limited population growth curbing residential-property and mortgage growth, and in turn RCB collateral production and outstandings. Still, the perception of start-of-year scarcity might be overdone, as analysis of ...

< Page 1 of 27 >

EU CLO Quarterly - New Deals Set Annual Record

102) Record Annual CLO Issuance May Not Recur Due to Lower Arbitrage

Record CLO issuance from new deals in excess of €48 billion in 2024, on €79 billion of total issuance, may not be repeated with arbitrage below 200 bps -- a likely headwind for new deal formation. Collateral holdings declined in 4Q24, and though €26.7 billion is held in CLOs starting to amortize this year, which could spur primary market activity, some may take the form of resets instead of new deals and the quantum is in any case well below 2024's new deal volume. ...

< Page 1 of 33 >

Bloomberg Industries

Research

BI STRTE <GO>

Return to Top



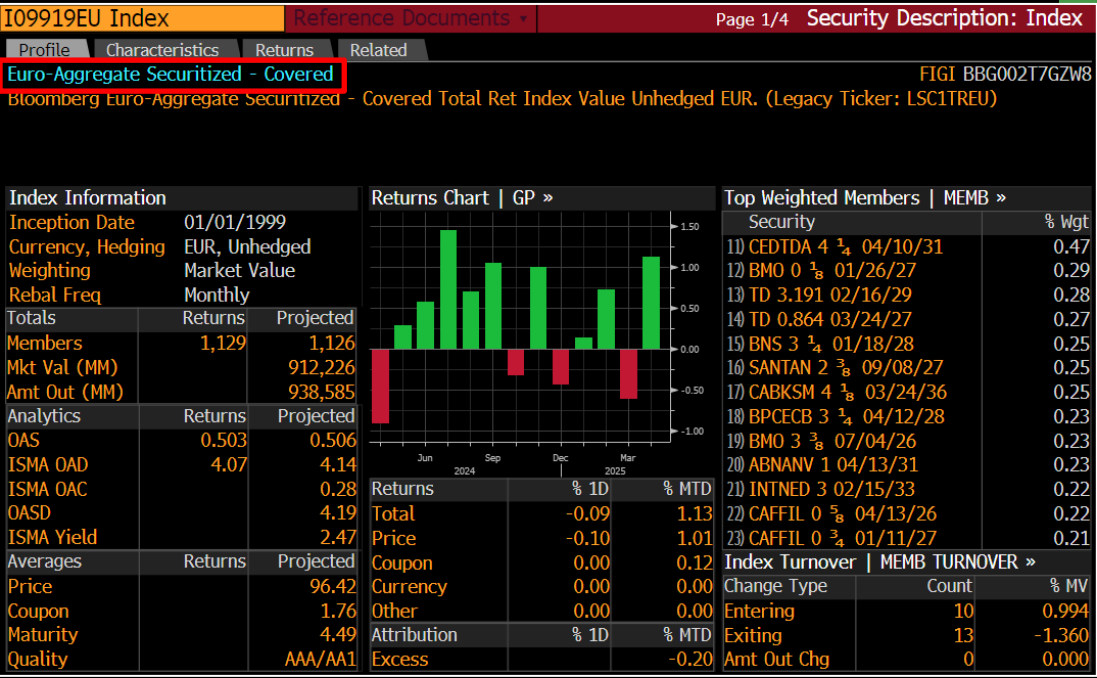
European RCB Outlook – March 2025



Reto Bachmann
Team: Strategy
BI Chief Structured Finance Strategist

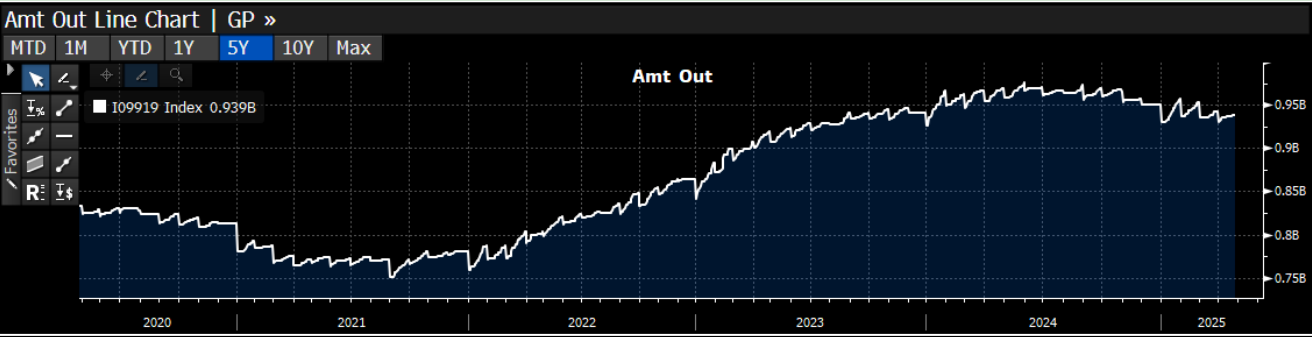
1. Regulated Covered Bonds' Spread Compression Has Long-Term Legs

Regulated covered bonds' (RCB) compressed spread differentials are set to extend, both within the asset class and to neighboring asset classes. That's as issuance is squeezed in the short term by its status as a less-attractive funding source, and in the long term by limited population growth curbing residential-property and mortgage growth, and in turn RCB collateral production and outstandings. Still, the perception of start-of-year scarcity might be overdone, as analysis of historical supply trends suggests both benchmark and other RCB issuance is well within historical norms, though it pales against the surge in supply of sovereign, supranational, sub-sovereign bonds and even bank paper amid Europe's fiscal expansion and sluggish economies. (03/31/25)



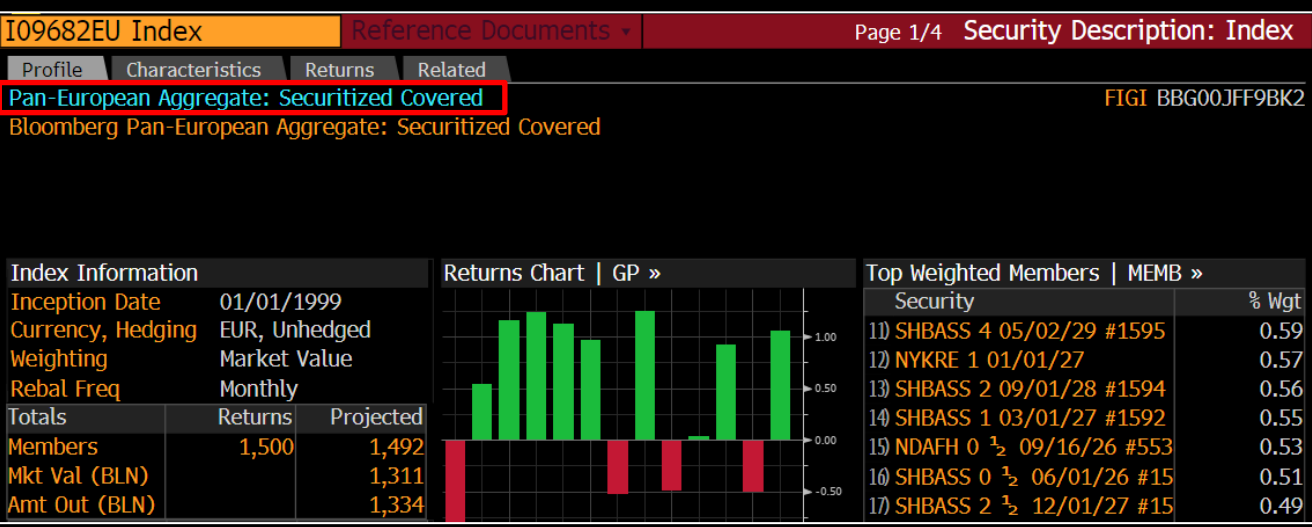
Bloomberg Indices

IN <GO>

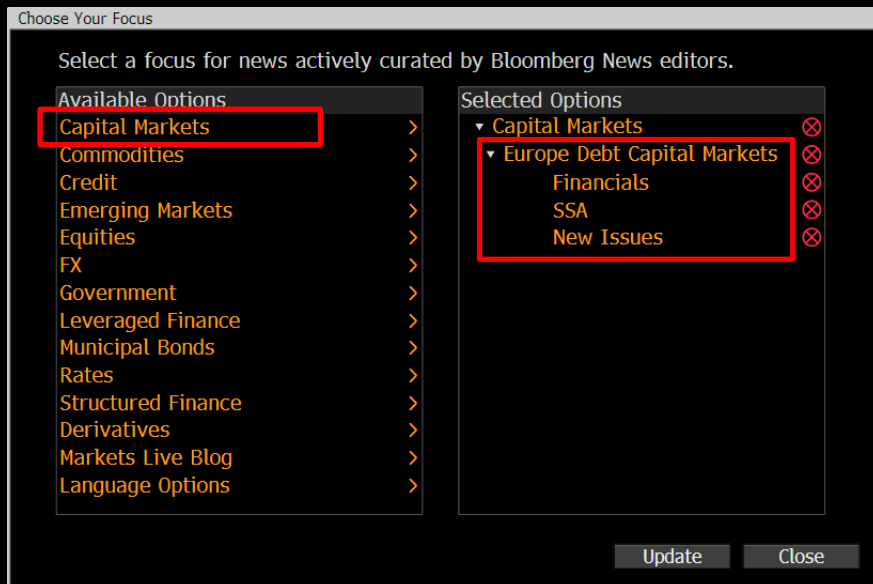
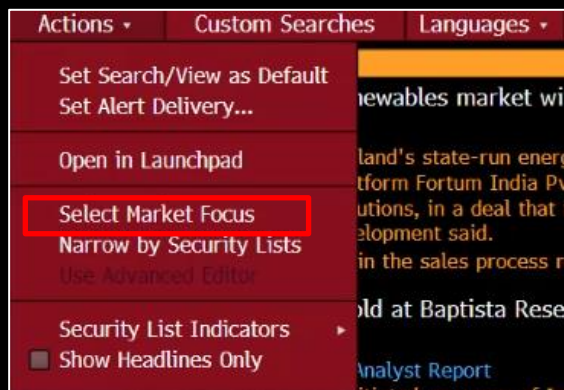


INS <GO>

Index Search



News: Bloomberg First Word – Primary Markets Realtime Updates



Search News

Actions

Custom Searches

Translate

Key Themes

Page 1

News Feed

BFW Covered Bond Recap... X

X

Sources

All Dates

My Lang

Time

Top Ranked News

More »

1) ✓COVERED BOND RECAP: Sole Sterling Deal Keeps Primary Market Open

BFW

04/25

Time Ordered News

2) ✓COVERED BOND RECAP: Sole Sterling Deal Keeps Primary Market Open

BFW

04/25

3) ✓COVERED BOND RECAP: UK's PRA 'Pauses' Rule Change Amid Backlash

BFW

04/17

4) ✓COVERED BOND RECAP: Caffil Tests Primary After Tariff Shutdown

BFW

04/11

5) ✓COVERED BOND RECAP: Resilient Start to April After Slow March

BFW

04/04

6) ✓COVERED BOND RECAP: Primary Slows Back Down Amid Tariff Tension

BFW

03/28

7) ✓CC

8) ✓CC

9) ✓CC

04/25/2025 12:10:28 [BFW]

10) ✓CC

Previous

Next

Send

Actions

Translate

News: Covered Bonds Weekly Wrap

NI COVWRAP <GO>

PIPELINE

- No new, pending mandates

YTD ISSUANCE

- Total YTD covered-bond sales €64.8b equivalent vs €98.4b for same period a year earlier, according to data compiled by Bloomberg
 - EUR-denominated sales €60.4b vs €92b

ECB

- ECB held €234.1b of covered bonds as of April 18, a €481m net decrease from the previous week

COVERED BOND RECAP: Sole Sterling Deal Keeps Primary Market Open

By Colin Keatinge

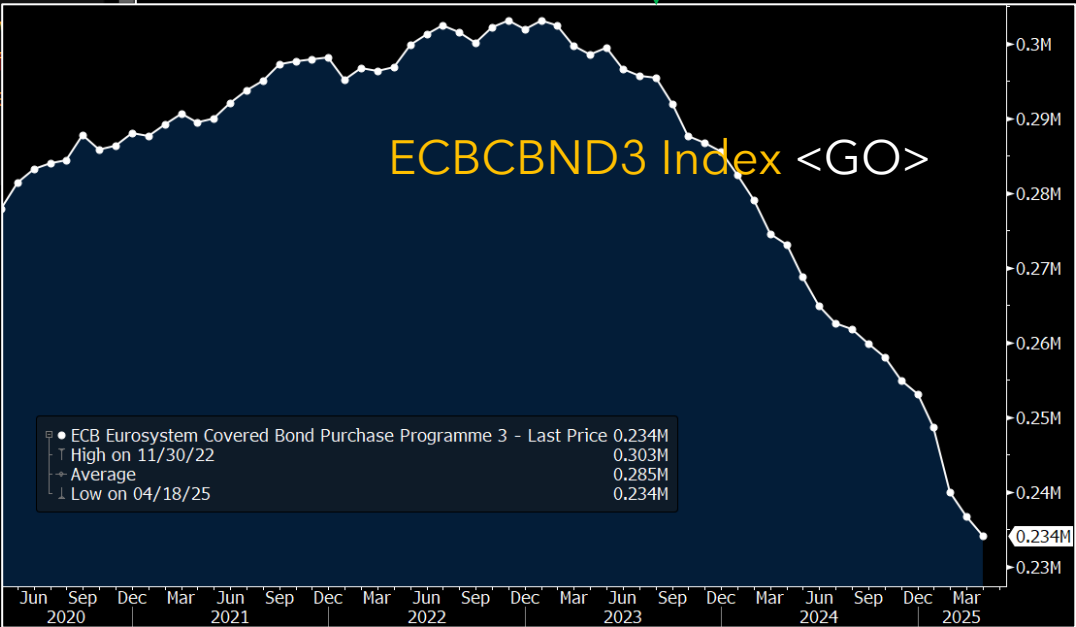
(Bloomberg) -- A single deal in sterling kept Europe's primary market for covered bonds open this week, as tariff-related turbulence and the Easter holidays combined to deter issuance.

- Skipton Building Society sold a £500m short 5Y FRN; the offering tightened 5 basis points between guidance and pricing, and managed books above £1.15b, according to the lead managers
- Year-to-date sales of covered bonds have now fallen even further behind last year's total at the same stage; an underwhelming April is just the latest period to disappoint
- Recent macro turmoil has further slowed primary market activity, according to Deutsche Bank; yet investor confidence and demand for new €benchmark covered bonds has "held firm" in the wake of US President Donald Trump's tariff announcement on April 2
 - This shows that covered bonds have benefited from a "flight to quality," write strategist Bernd Volk and research associate Siddharth Garg

News on Tariffs

Click to see more news analysis on how tariffs are shaping global markets

Run News on Tariffs



Updates to LEAG tables and roles take effect on 02/26 More »

Table **B** Covered Bonds including Pfandbriefe ☐ Exclude Self-led Party Bank J Safra Sarasin AG
Period Year ▾ of 2024 ▾ Table view Credit ▾ Role Manager ▾

League Table	History	Analysis	Deals		Manager	Rank	Vol (MM EUR)↓	Issues	Table Share (%)	Mkt Share Diff ▲
					Nordea	1 ↑19	13,933.15	106	4.51	2.16
					Landesbank Baden-Wuerttemberg	2 ↑1	13,823.03	105	4.47	1.08
					UniCredit	3 ↑6	13,398.62	76	4.33	1.38
					UBS	4 ↓3	13,334.82	88		
					Credit Agricole CIB	5 ↑7	12,544.69	67		
					Banco Santander	6 ↓2	11,882.90	55		
					Commerzbank	7 ↓2	11,858.17	77		
					Natixis	8 ↑2	10,390.64	74		
					PFANDBRIEFZENT	9 ↑13	10,040.57	43		
					Danske Bank	10 ↓8	9,601.42	98		
					ING Groep	11 ↓3	9,544.34	56		
					Barclays	12 ↑3	9,144.41	48		
					SEB	13 ↑11	8,426.25	113		
					Intesa Sanpaolo	14 ↑7	8,023.81	28		
					BNP Paribas	15 ↑11	8,008.22	38		
					DZ Bank AG Deutsche Zentral-Genosse...	16 ↑2	7,947.33	80		
					Erste Group Bank	17 ↓11	7,848.88	76		
					TD Securities	18 ↓4	7,244.02	30		
Credited - 103 Managers							309,097.29	832		
Total							362,543.99	1,093		

LEAG <GO>

League Tables: Edit Criteria

Build/Edit Search My Searches Example Searches

Build with Criterion Build by Merging Saved Searches

As of 04/25/2025 ▾ Additional Options Consolidate Duplicate Bonds ▾

Instruments Corporates, Governments 3,489,371 Instruments

Sources No Sources

Field	Boundaries	Selected Criteria	Matches	
Security				
Security Status	Include	Bonds: All	3,489,371	
And Is Var Redemption	--	No	3,342,828	
And Security Type	Exclude	(Bonds with Warrants or Credit Linked or Structur...	3,081,028	
And Collateral Type	Include	(Covered or Jumbo Pfandbrief or Pfandbrief)	47,780	
And Country/Region of Incorporation	Exclude	(Denmark)	47,780	
And Is Convertible	--	No	47,775	
And Is Retained Deal	--	No	31,803	
And Local Issuing Structure	Exclude	(Schuldschein)	31,803	
Corporate Actions				
Deal Call Length (Days)	>=	540	28,782	
And Deal Put Length (Days)	>=	540	28,761	
And Deal Maturity Length (Days)	>=	540	28,761	
And Self Led Transaction Amount	>=	35MM (EUR)		
L Or Self Led Transaction	--	No	23,077	
And League Creditable	--	Yes	22,317	
And Deal Effective Date	In the range	01/01/2025 – 04/25/2025	267	

Currency Conversion EUR ▾ (As of Issue Date)

267 Instruments 391 deals

LEAG - Arranger & Issuance Statistics

Actions ▾	Alerts ▾	Summary	Export ▾	Settings	League Tables: Ranking		
Updates to LEAG tables and roles take effect on 02/26 More »							
Table	* Covered Bonds including Pfandbriefe				Party	Bank J Safra Sarasin AG	
Period	Year ▾	of	2024 ▾	Table view	Credit ▾	Role	Manager ▾
League Table	History	Analysis	Deals				
Manager		Rank	Vol (MM EUR)↓	Issues	Table Share (%)	Mkt Share Diff ▲	
UniCredit	⌵	1 ↑5	13,285.36	73	6.04		1.55
Landesbank Baden-Wuerttemberg	⌵	2 ↓1	13,150.77	98	5.98		0.86
Credit Agricole CIB	⌵	3 ↑4	12,423.04	66	5.65		1.23
Commerzbank	⌵	4 0	11,613.21	74	5.38		0.60
Banco Santander	⌵	5 ↑3	10,556.19	47			
Natixis	⌵	6 ↓1	10,195.68	72			
ING Groep	⌵	7 ↓5	9,076.79	49			
Intesa Sanpaolo	⌵	8 ↑3	8,023.81	28			
DZ Bank AG Deutsche Zentral-Genosse...	⌵	9 ↑1	7,487.33	74			
BNP Paribas	⌵	10 ↑6	7,000.36	33			
Landesbank Hessen-Thuringen Girozen...	⌵	11 ↑9	6,866.51	39			
Societe Generale	⌵	12 ↓3	6,825.24	42			
Nordea	⌵	13 ↑15	6,810.42	31			
Erste Group Bank	⌵	14 ↓11	6,742.14	64			
Barclays	⌵	15 0	6,468.45	34			
UBS	⌵	16 ↑10	5,684.78	36			
Norddeutsche Landesbank GZ	⌵	17 ↑5	5,627.36	52			
Raiffeisen Bank International Group	⌵	18 ↑7	5,470.13	36			
HSBC	⌵	19 ↓7	4,357.94	35			
Deutsche Bank	⌵	20 ↓3	4,027.19	30			
JP Morgan	⌵	21 ↑16	3,978.41	25			
Banco Bilbao Vizcaya Argentaria	⌵	22 ↓3	3,962.86	25			
Danske Bank	⌵	23 ↓9	3,866.67	30			
Credited - 78 Managers			219,904.21	383			
Total			224,711.10	389			

Build/Edit SearchMy SearchesExample Searches

Build with CriterionBuild by Merging Saved Searches

As of04/25/2025Additional OptionsConsolidate Duplicate

InstrumentsCorporates, GovernmentsEdit

SourcesNo SourcesEdit

Field	Boundaries
Security	
Security Status	Include
And Is Var Redemption	--
And Security Type	Exclude
And Collateral Type	Include
And Country/Region of Incorporation	Exclude
And Is Convertible	--
And Is Retained Deal	--
And Local Issuing Structure	Exclude
And Currency	Include
Corporate Actions	
Deal Call Length (Days)	>=
And Deal Put Length (Days)	>=
And Deal Maturity Length (Days)	>=

LEAG <GO>

League Tables: Edit Criteria

Build/Edit SearchMy SearchesExample Searches

Build with CriterionBuild by Merging Saved Searches

As of04/25/2025Additional OptionsConsolidate Duplicate Bonds

Instruments Corporates, GovernmentsEdit3,489,371 Instruments

Sources No SourcesEdit

Field	Boundaries	Selected Criteria	Matches	
Security				
Security Status	Include	Bonds: All	3,489,371	
And Is Var Redemption	--	No	3,342,828	
And Security Type	Exclude	(Bonds with Warrants or Credit Linked or Structur...	3,081,028	
And Collateral Type	Include	(Covered or Jumbo Pfandbrief or Pfandbrief)	47,780	
And Country/Region of Incorporation	Exclude	(Denmark)	47,780	
And Is Convertible	--	No	47,775	
And Is Retained Deal	--	No	31,803	
And Local Issuing Structure	Exclude	(Schuldschein)	31,803	
And Currency	Include	(Euro Currency)	21,897	
Corporate Actions				
Deal Call Length (Days)	>=	540	20,174	
And Deal Put Length (Days)	>=	540	20,156	
And Deal Maturity Length (Days)	>=	540	20,156	
And Self Led Transaction Amount	>=	250MM (EUR)		
L Or Self Led Transaction	--	No	11,271	
And League Creditable	--	Yes	11,107	
And Deal Effective Date	In the range	01/01/2024 – 12/31/2024	373	
Currency ConversionEUR(As of Issue Date)				
			373 Instruments	Update
			389 deals	

LEAG - Customization

Actions Alerts Summary Export Settings League Tables: Ranking

Updates to LEAG tables and roles take effect on 02/26 More »

Table B Covered Bonds including Pfandbriefe Exclude Self-led Party Nordea

Period Year of 2024 Table view Credit Role Manager

League Table History Analysis Deals

Table History Manager History

Historical Periods Year Over Year Rolling Periods

Market				Top Party				Nordea	
Period	Vol (MM EUR)	Issues	#Parties	Name	Issues	Shr (%)	Rank	Issues	Shr (%)
2024	362,543.99	1,093	103	Nordea	106	4.51	1	106	4.51
2023	441,217.74	1,216	115	UBS	103	3.95	20	92	2.35
2022	440,753.81	1,356	114	Landesbank Baden-Wuertt...	121	4.37	19	98	2.27
2021	285,229.51	1,105	98	Landesbank Baden-Wuertt...	102	5.95	18	50	2.14
2020	279,842.31	995	97	Commerzbank	46	5.83	13	63	2.70
2019	299,062.22	1,107	98	UniCredit	120	5.30	19	62	2.46
2018	299,168.10	1,178	110	HSBC	82	4.91	21	59	1.97

LEAG - More Statistics



Actions Alerts Summary Export Settings League Tables: Ranking

Updates to LEAG tables and roles take effect on 02/26 More »

Table B Covered Bonds including Pfandbriefe Exclude Self-led Party Nordea

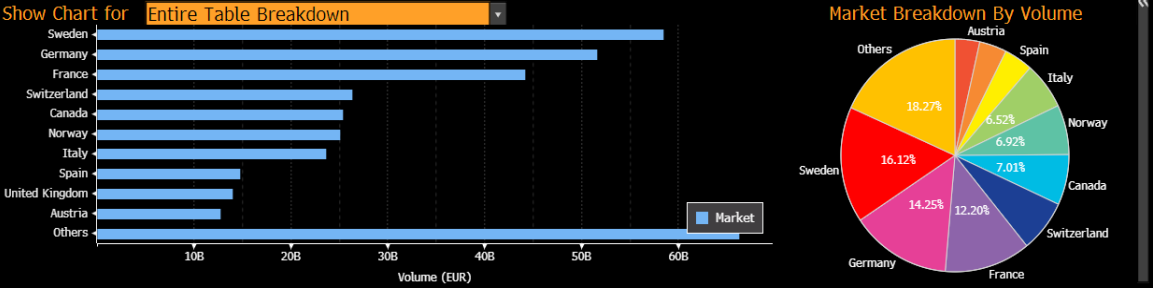
Period Year of 2024 Table view Credit Role Manager

League Table History Analysis Deals

Breakdown Peer to Peer

Group By Country/Region of

Market				Top Party				Nordea			
Groups	Vol (MM EUR)	Issues	#Par...	Name	Vol (MM EUR)	Issues	Shr (%)	Rank	Vol (MM EUR)	Issues	Shr (%)
Others	66,238.91	169	76	Nordea	4,460.21	18	6.94	1	4,460.21	18	6.94
Sweden	58,446.41	358	15	Swedbank	2,808.18	47	23.54	3	2,390.68	31	20.04
Germany	51,649.16	149	43	UniCredit	5,877.38	27	11.60	16	875.00	8	1.73
France	44,233.11	58	43	Credit Agricole...	6,326.79	19	14.50	16	1,079.17	6	2.47
Switzerland	26,326.26	96	21	PFANDBRIEFZE...	10,040.57	43	38.51	10	218.75	2	0.84
Canada	25,408.11	31	28	TD Securities	5,668.26	17	22.20				
Norway	25,075.97	109	26	DNR ASA	5,853.61	61	23.39	2	4,759.34	40	19.02



BBG currently covers 7,250 active Covered Bonds across 438 Cover Pools of which 374 disclose regularly; this is across 33 countries and 16 currencies representing close to 3tln EUR amounts outstanding.

Data is available via

- Terminal
- API services for data fields such as BQL
- Data License service bundles

DES <GO>

HCOB 3 5s 01/30/26 € 100.900 - .003 49.5 bp vs BK0 3.100 12/12/2025
At 14:17 Source IBVL

HCOB 3 5s 01/30/26 Cor Actions Settings Page 1/2 Security Description: Bond

94) Notes 95) Buy 96) Sell

25) Bond Description 26) Cover Pool 27) Issuer Description

Pages

11) Pool Information 12) Bonds under Pool

Cover Pool Information

Cover Pool Name Hamburg Commercial Bank Schiffspf

Cover Pool ID (FIGI) BBG008P8WY34

Collateral Currency EUR

Collateral Balance 2,086,450,000

Over Collateralization Percentage 36.82

LTV % (Loan to Value) 44.3

Number of Assets 189

As of Date 03/31/2025

Issuer Website <https://www.hcob-bank.com/en/investor...>

Geographic Distribution

Code	Region	Exposure
	other	68.34 %
MT		6.05 %
SG		5.13 %
DE		4.53 %
DK		3.34 %
		3.09 %
		2.68 %
		2.53 %

Collateral Type Composition

Collateral Type	Percentage
SHIPPING	76.40%
SUBSTITUTE_ASSETS	23.60%

25) Bond Description		26) Cover Pool		27) Issuer Description							
Pages		Bonds Information									
11) Pool Information			R ↓	Ticker	Cpn Type	Coupon	Maturity	Issue	Cur	Amt Out (MM)	
12) Bonds under Pool							MM/DD/YYYY		MM/DD/YYYY		
101)				HCOB	FIXED	3.625	01/30/2026		01/30/2024	EUR	500
102)				HCOB	FIXED	1.375	05/27/2025		05/27/2022	EUR	500
103)				HCOB	FIXED	2.35	01/02/2026		12/18/2024	EUR	250
104)				HCOB	FLOATING	3.256	02/01/2028		11/18/2024	EUR	250
105)				HCOB	FLOATING	2.836	07/19/2027		07/19/2024	EUR	25

Covered Bond Datasets

Pool Identifiers and References	
DT305	COVER_POOL_NAME
ID180	ID_BB_GLOBAL_COVER_POOL
DO109	HARMONIZED_TRANS_TEMPLATE_WEBSTE
DO108	COVER_POOL_REPORT_ISSUER_WEBSITE
DZ438	BOND_CLASSIFICATION_NAME
DT304	COVERED_POOL_PUBLISH_DATE

Regulatory Data	
DO106	CRR_FOR_COVRD_BOND_ELIGIBLE_IND
DO107	COVRD_BOND_DIR_COMPLIANT_IND
DQ841	EURO_COVERED_BOND_PREMIUM_IND
DZ958	ECBC_COVERED_BD_LABEL_INDICATOR
DT600	COVERED_BOND_NATL_FRAMEWORK_IND
DT317	COVERED_NATIONAL_FRAMEWORK

Cover Pool Value Overview	
DS093	MTG_BAL
DS537	MTG_NUM_POOLS
DT612	OUTSTANDING_DEBT_COVERED_BOND

Other	
DZ423	DEFAULT_EXTENSION_MATURITY_DATE
DQ840	IOH_TENURE
DX533	IS_COVERED
DT883	COVERED_SOFT_BULLET
DT884	COVERED_CONDITIONAL_PASS_THROUGH

Cover Pool Details	
DT611	OVER_COLLATERALIZATION_PCT_AR
DY012	MTG_CURR_DEAL_OVER_COLLAT
DT601	OVER_COLLATERALIZATION_NOMINAL
DT303	COVERED_COLLATERAL_TYPE_&_%
DT302	COVERED_GEO_EXPOSURE_%
DT301	COVERED_LTV_%
DQ839	RESNTIL_COVER_POOL_LTV_PCT
DQ844	COVERED_BOND_LIQUID_ASSETS_PCT
DQ843	CVRD_BND_SUBSTITUTE_AST_TYPE_PCT
DQ845	NON_PERFORMING_LNS_CVR_POOL_PCT
DX578	MTG_CMO_COLLAT_CRNCY
DQ846	INTEREST_RATE_BREAKDOWN
DQ847	COVER_ASSETS_CURRENCY_BREAKDOWN
DT610	COVER_POOL_AVG_SEASONING
DT743	COVER_POOL_AVG_SEASONING_CALC
DT744	COVER_POOL_AVG_REMAIN_TERM
DT745	COVER_POOL_AVG_REMAIN_TERM_CALC
DT746	COVER_POOL_AVG_LOAN_BALANCE
DT747	COVER_POOL_AVG_LOAN_BALANCE_CALC
DT748	COVER_POOL_AVG_INT_RATE
DT749	COVER_POOL_AVG_INT_RATE_CALC
DO110	RESID_COVER_POOL_AVG_LOAN_BAL
DO111	COMMRCIL_COVER_POOL_AVG_LOAN_BAL
DQ848	RESNTIL_LOANS_BREAKDOWN_BY_SIZE
DQ849	COMMRCIL_LOANS_BREAKDOWN_BY_SIZE
DQ850	PUBLIC_EXPOSURE_BREAKDWN_BY_SIZE
DO240	PUBLIC_COVER_POOL_AVG_EXPSRE_SIZE
DO241	SHIPPNG_COVER_POOL_AVG_LOAN_BAL
DO242	SHIPPING_LOANS_BREAKDOWN_BY_SIZE

FLDS <GO>
DATA <GO>

Covered Bond Datasets

(There is more on the database than what is visible on DES <GO>)

CMZB 2 1/2 02/25/28 € ↓ 100.352 +.086 100.294 / 100.410 2.393 / 2.351
At 13:06 -- x -- Source BGN

CMZB 2 1/2 02/25/28 Cor Actions Settings Page 3/13 Security Description: Bond

94) Notes 95) Buy 96) Sell

25) Bond Description 26) Cover Pool 27) Issuer Description 27) BI Credit Research | BICC »

Pages

- 11) Bond Info
- 12) Addtl Info
- 13) Reg/Tax
- 14) Covenants
- 15) Guarantors
- 16) Bond Ratings
- 17) Identifiers
- 18) Exchanges
- 19) Inv Parties
- 20) Fees, Restrict
- 21) Schedules
- 22) Coupons
- 23) Sustainability

Quick Links

- 32) ALLQ Pricing
- 33) QRD Qt Recap
- 34) TDH Trade Hist
- 35) CACS Corp Action
- 36) CF Filings
- 37) CN Sec News
- 38) HDS Holders
- 66) Send Bond

Regulatory & Tax Information

Tax Information

Tax Changes Call	No
US Sourced FDAP Income	No
US FATCA Grandfathered Obligation	No

AIFMD

Exposure Reporting Sub Asset Type	SEC_CPI_INVG
Turnover Reporting Sub Asset Type	SEC_CPI_CPI

Basel Framework

HQLA EU Eligible Asset Class Designation	1
HQLA US Eligible Asset Class Designation	N
FRTB US Standardized Approach SBM Risk Weight	2.50
FRTB EU Standardized Approach SBM Risk Weight	12.0%

71) MiFID Transparency and Transaction Details | MFID »

Is Instrument TOTV	Yes
Is Liquid Instrument	Yes

SEC Rule 15C2-11

Indicator for Quotation	Yes
Attribute for Quotation	Issuer Audited within 1...

DES <GO>
FLDS <GO>
DATA <GO>

Covered Bond
Regulatory
Datasets

DW164 BRAM_HQLA_UK_ELIG_AST_CL_DESGTN

Article 10(f)

- (i) they are covered bonds as referred to in Article 3, point 1, of Directive (EU) 2019/2162 or they are issued before 8 July 2022 and meet the requirements set out in Article 52(4) of Directive 2009/65/EC, as applicable on the date of their issue, which makes them eligible for preferential treatment as covered bonds until their maturity;
- (ii) the exposures to institutions in the cover pool meet the requirements set out in Article 129(1), point (c), and in Article 129(1a) of Regulation (EU) No 575/2013;
- (iv) their issue size is at least EUR 500 million (or the equivalent amount in domestic currency);
- (v) the covered bonds are assigned a credit assessment by a nominated ECAI which is at least credit quality step 1 in accordance with Article 129(4) of Regulation (EU) No 575/2013, the equivalent credit quality step in the event of a short term credit assessment or, in the absence of a credit assessment, they are assigned a 10 % risk weight in accordance with Article 129(5) of that Regulation;
- (vi) the cover pool meets at all times an asset coverage requirement of at least 2 % in excess of the amount required to meet the claims attaching to the covered bonds;

Cover Pool Information

Cover Pool Name

Cover Pool ID (FIGI)

Collateral Currency

Collateral Balance

Over Collateralization Percentage

LTV % (Loan to Value)

Number of Assets

As of Date

Issuer Website

ING Bank NV Soft Bullet 2 Covered

BBG0106MHFF5

EUR

44,974,070,000

24.93

--

202,483

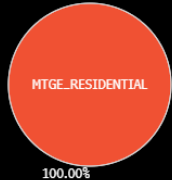
07/31/2024

[https://www.ing.com/Investor-relations/...](https://www.ing.com/Investor-relations/)

Geographic Distribution

Code	Region	Exposure
NL	Noord-Holland	23.74 %
NL	Zuid-Holland	23.02 %
NL	Brabant	12.46 %
NL	Gelderland	11.68 %
NL	Utrecht	8.83 %
NL	Overijssel	4.91 %
NL	Limburg	3.40 %
NL	Flevoland	3.15 %

Collateral Type Composition



100.00%

100.00% MTGE_RESIDENTIAL

Covered Bond Regulatory Datasets

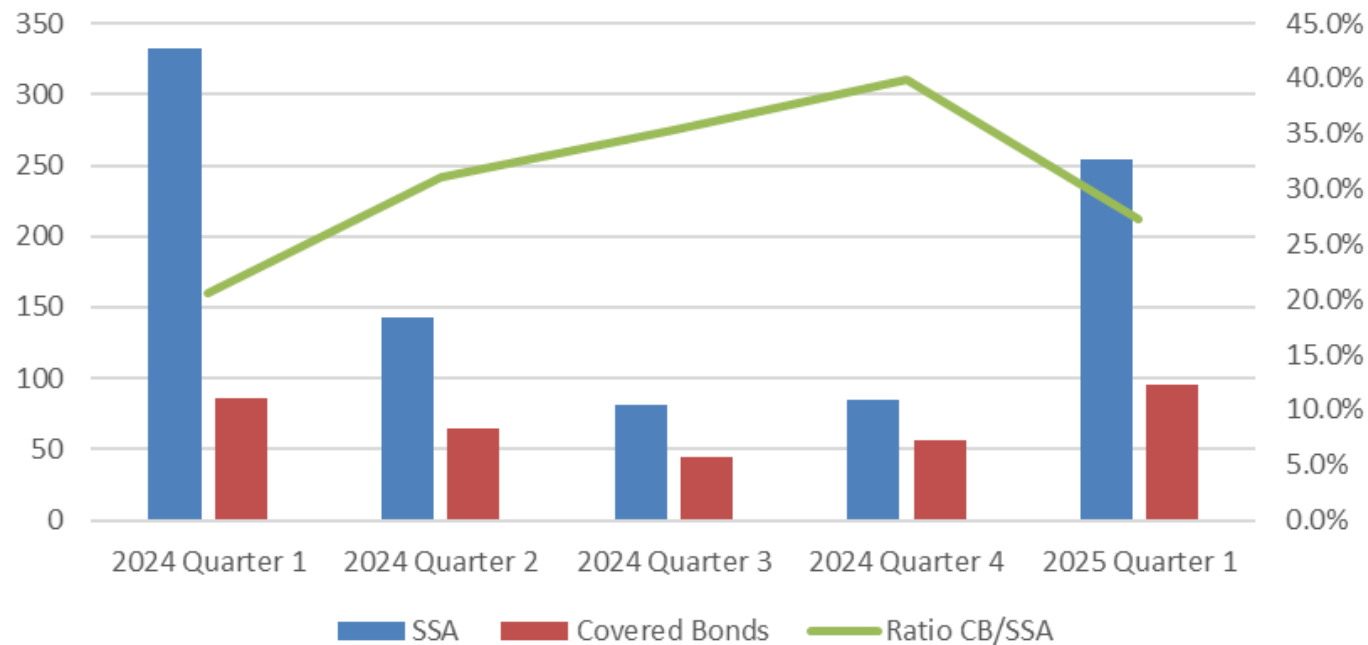
Example: INTNED 2.692 09/24/31 CORP

Security Type:	Covered bond
Covered pool Name:	ING Bank NV Soft Bullet 2 Covered
Disclosed Covered Pool with latest information	Yes
Cover pools are governed by a national legal framework	Yes
Cover Pool Composition?	100% Residential <u>Mtge</u>
Issue Size greater than EUR 500million?	Yes, EUR 1 billion
Over Collateralization greater than 2%?	Yes
Eligible for preferential treatment	

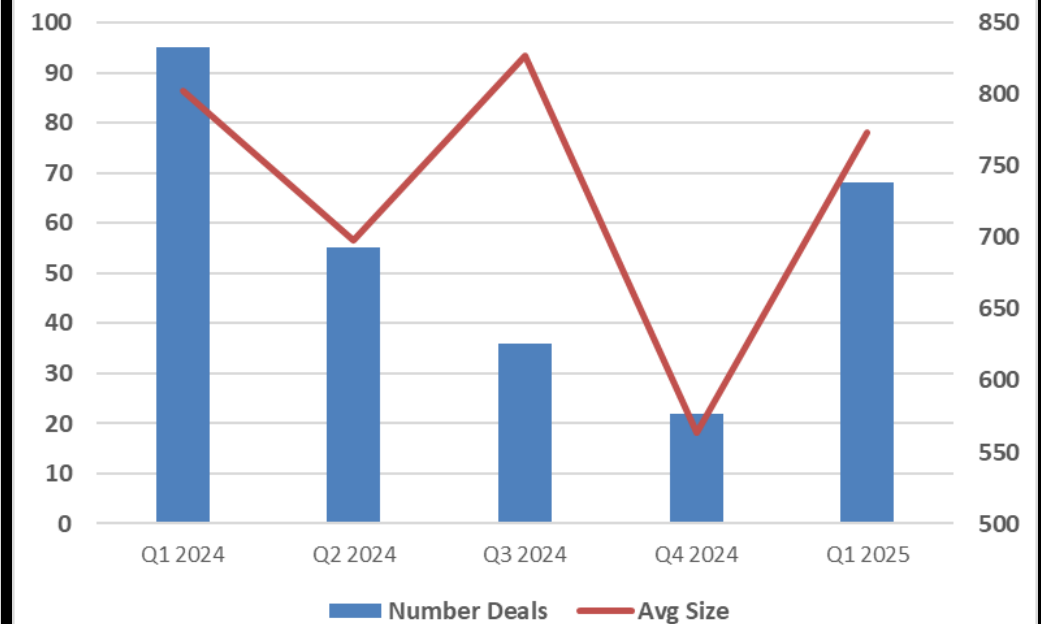
Return: Risk Weight = 10% and EU HQLA Level = 1

Covered Bond Issuance Q1/24 - Q1/25 | Europe, EUR

Europe/EUR - SSA vs. Covered Bond Issuance (EUR bln)

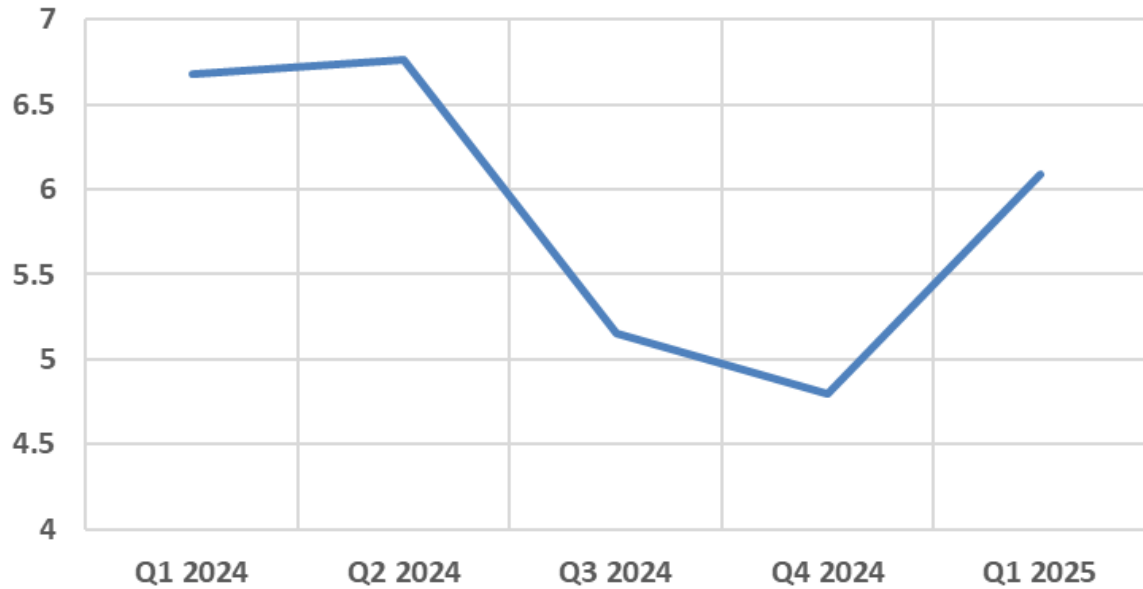


Benchmark CovB | Europe, EUR: #Deals & Avg Size

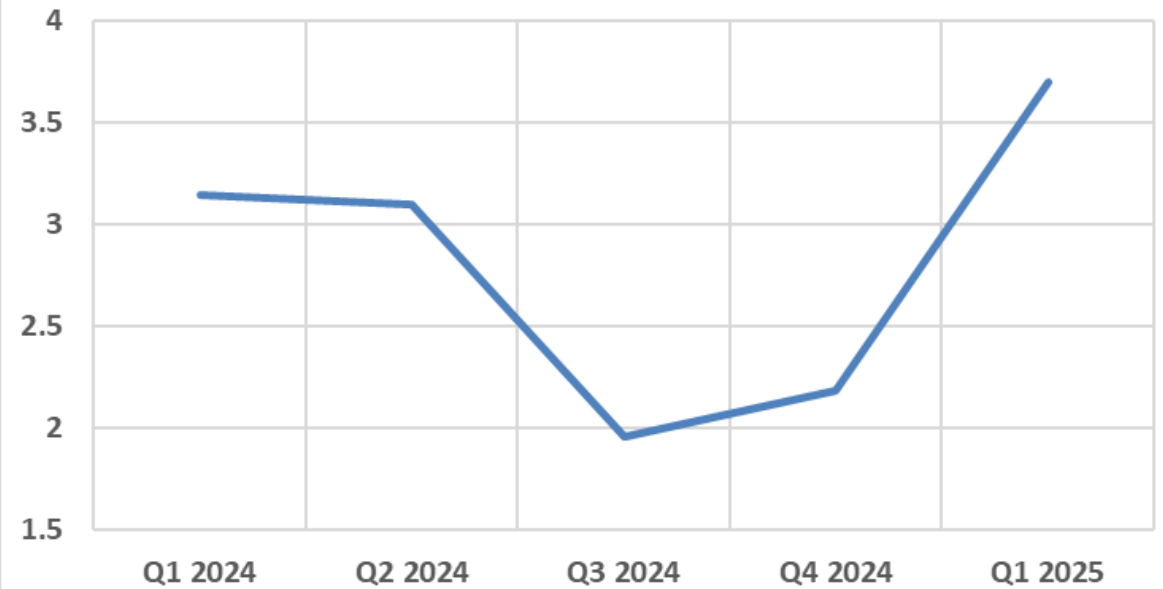


Covered Bond Issuance Q1/24 - Q1/25 | Europe, EUR

Avg Tenor

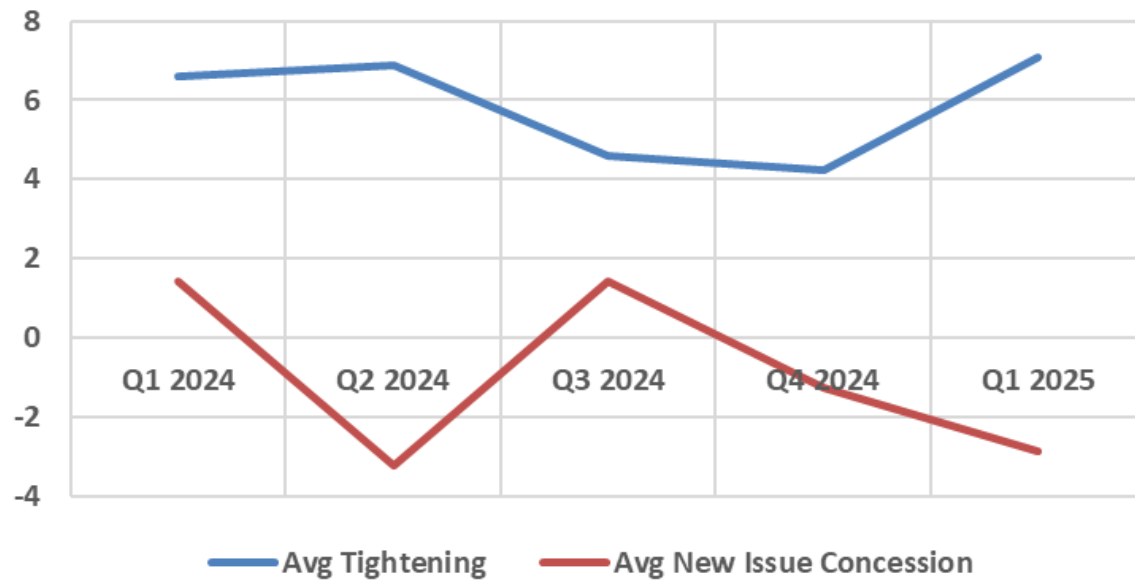


CovB, EUR, Europe: Avg Cover Ratio

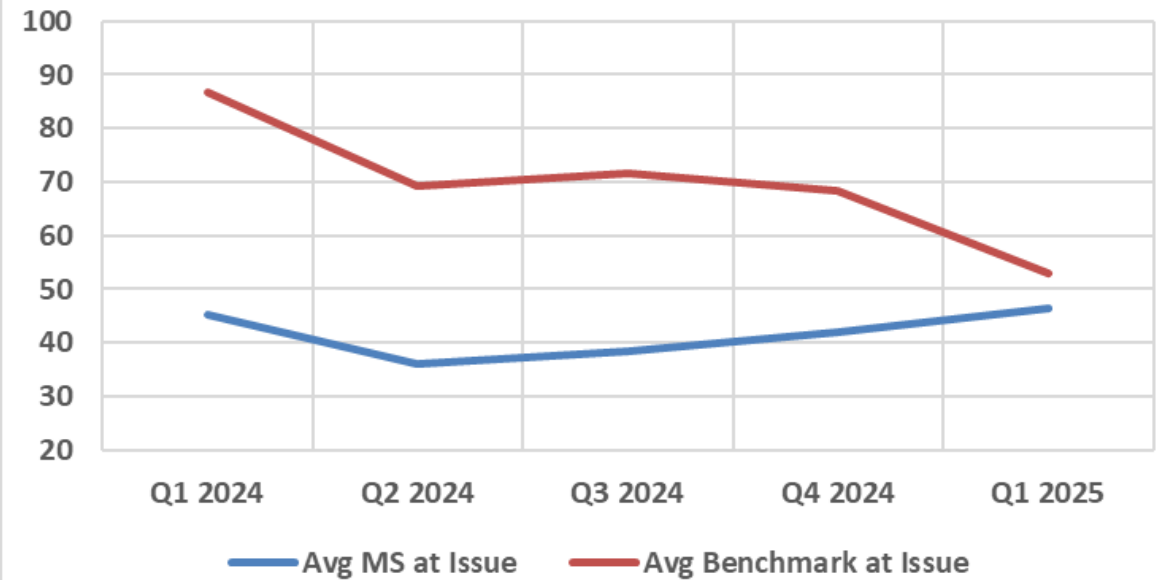


Covered Bond Issuance Q1/24 - Q1/25 | Europe, EUR

Avg Tightening & New Issue Concession



Avg MS & Benchmark Spread at Issuance



SRCH BONDS ISSUED BY MUNYHP

Actions ▾

Settings

Fixed Income Search

Build/Edit Search

My Searches

Example Searches

Build with Criterion

Build by Merging Saved Searches

As of 04/27/2025 Additional Options 2/6 Selected BONDS ISSUED BY MUNYHP

Instruments Corporates, Governments Edit 3,494,813 Instruments

Sources No Sources Edit

Field	Boundaries	Selected Criteria	Matches
Security Status	Include	Bonds: Active	450,941
And Issuer Name	Include	(Muenchener Hypothekenbank eG (MUNYHP)) (cu...	296
And		Fields	

296 Instruments Results Copy BQL Formula ▾

Additional Analysis Options

SRCH Results

View Results

Maturity Distribution

Holders & Debt Distribution

Debt Holders

Debt Distribution | DDIS »

Relative Value and Performance

Evaluate Pricing | FIW »

League Table | LEAG »

Liquidity

Dealer Inventory & MSG | IMGR »

Current Axes | IMGR »

Relative Value

Mortgage Assets 131

Bloomberg FI Classi... 161

Banking 161

☒ Pfandbriefe Traditio... 131

☐ Pfandbriefe Jumbo ... 3

☐ Pfandbriefe Traditio... 1

Modified Duration ▾

☐ <= 1 yrs 33

☐ 1 to 2 yrs 13

☐ 2 to 3 yrs 11

☐ 3 to 5 yrs 18

☐ 5 to 7 yrs 10

☐ 7 to 10 yrs 15

More...

SRCH <GO> → FIW <GO>
(Fixed Income Worksheet)

Suggested ▾

Worksheet ▾

Export ▾

Settings ▾

Fixed Income Worksheet: SRCH

PCS BVAL As of 22:01

then Maturity Add Security

Pfandbriefe Traditi... X

Matrix List Chart

Pricing Relative Value Descriptive Performance Liquidity

Table Corr G-Sprd BVAL over 3M 01/24/25 - 04/25/25

Issuer	Yld BVAL	Spread	Average	Low	Range
Investable Debt (131)	2.454	53.9	51.6	40.7	
Muenchener Hypothekenbank eG	2.267	26.5	25.4	20.7	
Muenchener Hypothekenbank eG	2.271	34.9	30.9	27.3	
Muenchener Hypothekenbank eG	2.215	30.0	28.9	24.7	
▼ 1 to 2 yrs (4)	2.244	46.9	43.5	37.6	
Muenchener Hypothekenbank eG	2.260	44.5	46.4	41.4	
Muenchener Hypothekenbank eG	2.277	48.6	43.4	37.3	
Muenchener Hypothekenbank eG	2.221	44.4	39.7	33.8	
Muenchener Hypothekenbank eG	2.219	50.0	44.4	37.9	
▼ 2 to 3 yrs (4)	2.311	53.0	49.6	44.4	
Muenchener Hypothekenbank eG	2.286	51.4	47.8	42.4	
Muenchener Hypothekenbank eG	2.313	53.8	50.3	44.9	
Muenchener Hypothekenbank eG	2.319	52.9	49.7	44.6	
Muenchener Hypothekenbank eG	2.329	53.8	50.6	45.5	
▼ 3 to 5 yrs (3)	2.509	56.9	52.6	45.5	
Muenchener Hypothekenbank eG	2.424	55.7	52.1	46.2	
Muenchener Hypothekenbank eG	2.550	57.8	53.1	45.5	
Muenchener Hypothekenbank eG	2.554	57.2	52.5	44.7	

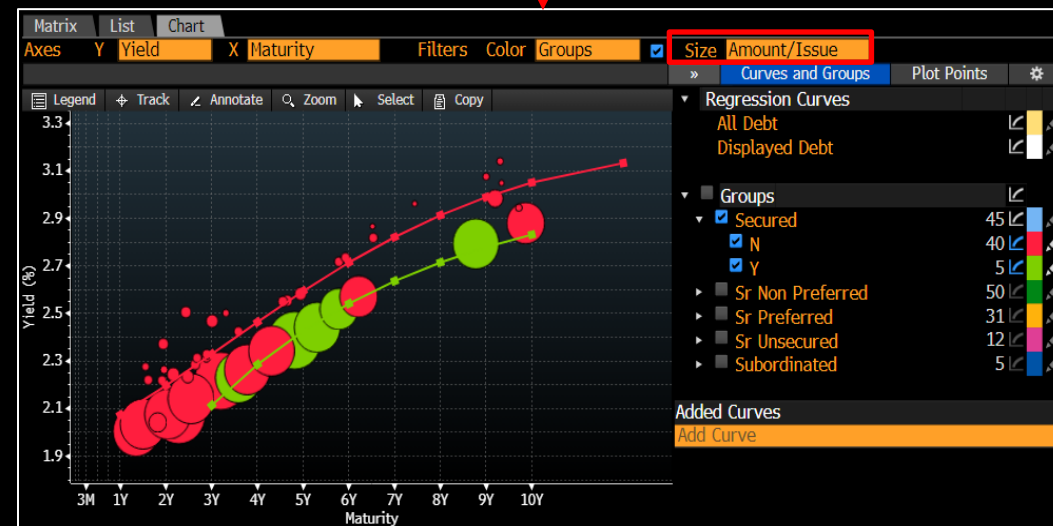
Range

◆ Avg ● Now

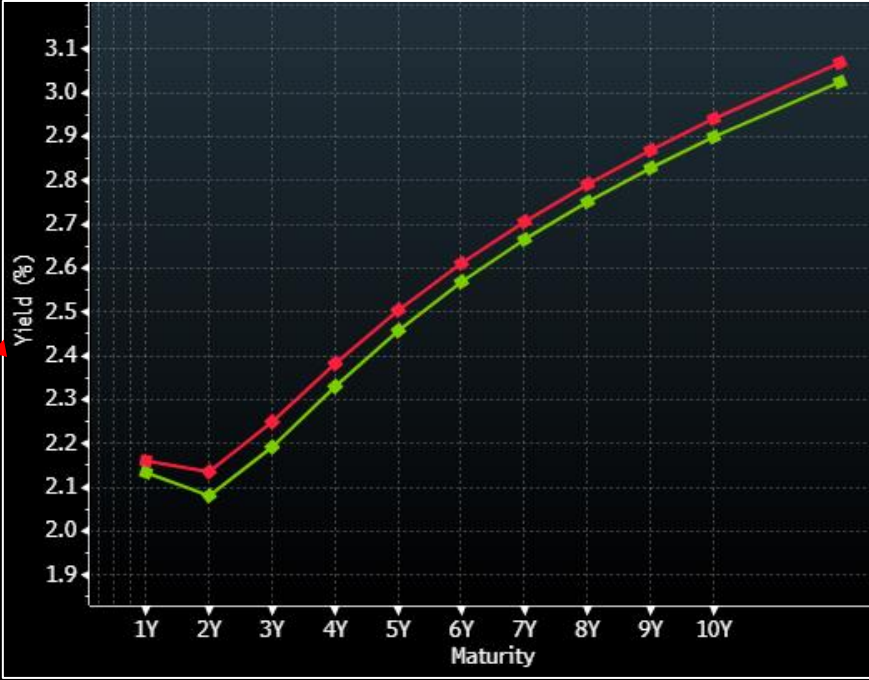


Relative Value
(Curves, Levels, Liquidity...compare
ANYTHING and LIVE)

FIW <GO>



SRCH COVERED BONDS ISSUED IN EUROPE IN EUR



Relative Value: Greenium?



2) Settings

Curve Finder

Single Curve

Multiple Curves

10) All

11) Country/Region

12) Credit

13) Money Market

14) Muni & Regionals

15) FX

16) Custom Curves

17) Issuer

18) Sector

19) CDS

20) CDS Index

41) All

42) Canada

43) France

44) Germany

45) Italy

46) Japan

47) United Kingdom

48) United States

49) Africa

50) Asia-Pacific

51) Eastern Europe

52) Latin America

53) Middle East

54) Western Europe

61) All

62) Communications

63) Energy

64) Financials

65) Govt & Agency

66) Health Care

67) Industrials

68) Materials

69) Technology

70) Utilities

Covered BVAL

161) SEK Stadshypotek AB Covered Bo BVAL Curve

162) EUR Banco Santander SA Covered BVAL Curve

163) DKK Nykredit Covered BVAL Curve

164) EUR Nationwide Blding Soc Covered BVAL Curve

165) DKK Realkredit Danmark Covered BVAL Curve

166) EUR ABN AMRO Bank NV Covered BVAL Curve

167) EUR Credit Ag Home Ln Covered BVAL Curve

168) EUR Aareal Bank AG Covered BVAL Curve

169) EUR Eika Boligkreditt Covered BVAL Yield Curve

170) EUR ING Bank NV Covered BVAL Curve

171) SEK SBAB Covered BVAL Curve

172) EUR Banco Bilbao Vizcaya Covered BVAL Curve

173) EUR Nordea Bank Finland Covered BVAL Curve

174) EUR BNP Paribas Home Loan Covered BVAL Cur...

175) EUR Bnp Paribas Montedisoni Covered BVAL Cur...

Curve ID

BI703

BI708

BI1131

BI729

BI1132

BI733

BI718

BI947

BI738

BI734

BI699

BI710

BI713

BI716

BI721

Selected Curves

Country/Region

Currency

Type

Curve ID

49) Industrials

50) Materials

51) Technology

52) Utilities

CRVF <GO>

Relative Value:
Issuer & Sector
(BVAL)Curves

Curve Finder

14) Muni & Regionals

15) FX

16) Custom Curves

Covered BVAL

161) EUR Germany Covered Bonds AAA BVAL Yield C...

162) EUR Europe Covered Bonds AAA BVAL Yield Cur...

163) EUR Europe Covered Bonds IG BVAL Yield Curve

164) EUR France Covered Bonds BVAL Yield Curve

165) EUR EU Covered AAA BVAL Yield Curve

166) EUR Europe Covered Bonds AA+, AA, AA- BVAL Y...

167) EUR Canada Covered Bonds BVAL Yield Curve

168) EUR AUSTRIA Covered AA BVAL Yield Curve

169) EUR Germany Covered Bonds Hypothekenpfand...

170) EUR Australia Covered Bonds BVAL Yield Curve

171) EUR Germany Covered Bonds Oeffentliche Pfan...

172) EUR Italy Covered Bonds BVAL Yield Curve

173) EUR Belgium Covered Bond BVAL Yield Curve

174) EUR Portugal Covered Bonds BVAL Yield Curve

175) EUR EU Covered AA- BVAL Yield Curve

Curve ID

BS171

BS183,F8...

BS178

BS174

BS575

BS184

BS754

BS613

BS172,F9...

BS755

BS181

BS176

BS753

BS756

BS578

Selected Curves

Country/Region

Currency

Type

Curve ID

21) EUR Germany Covered Bonds Hypothekenpfandbriefe BVAL Yield Cur...

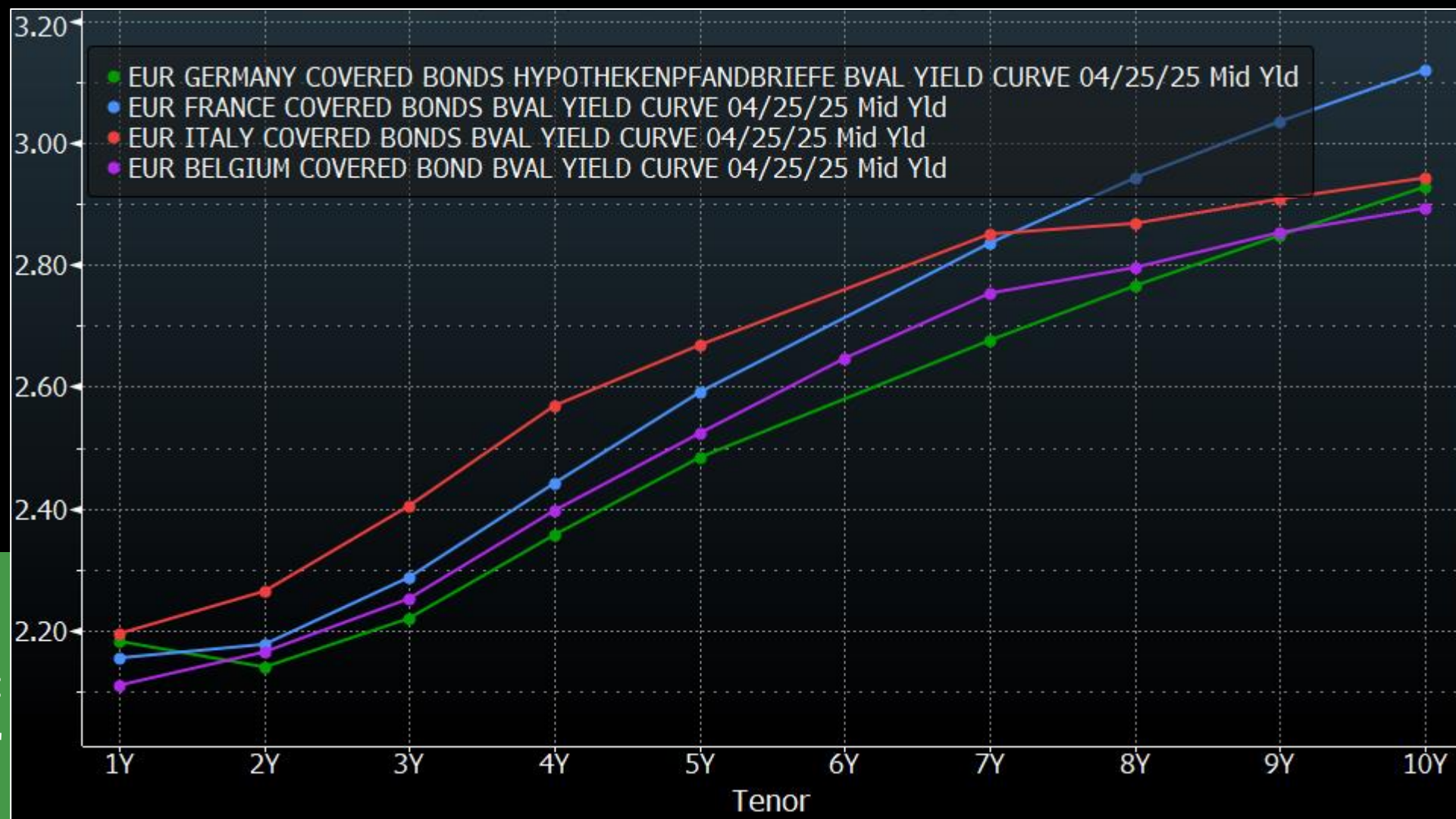
22) EUR France Covered Bonds BVAL Yield Curve

23) EUR Italy Covered Bonds BVAL Yield Curve

24) EUR Belgium Covered Bond BVAL Yield Curve

1) Graph Selected Curves | GC »

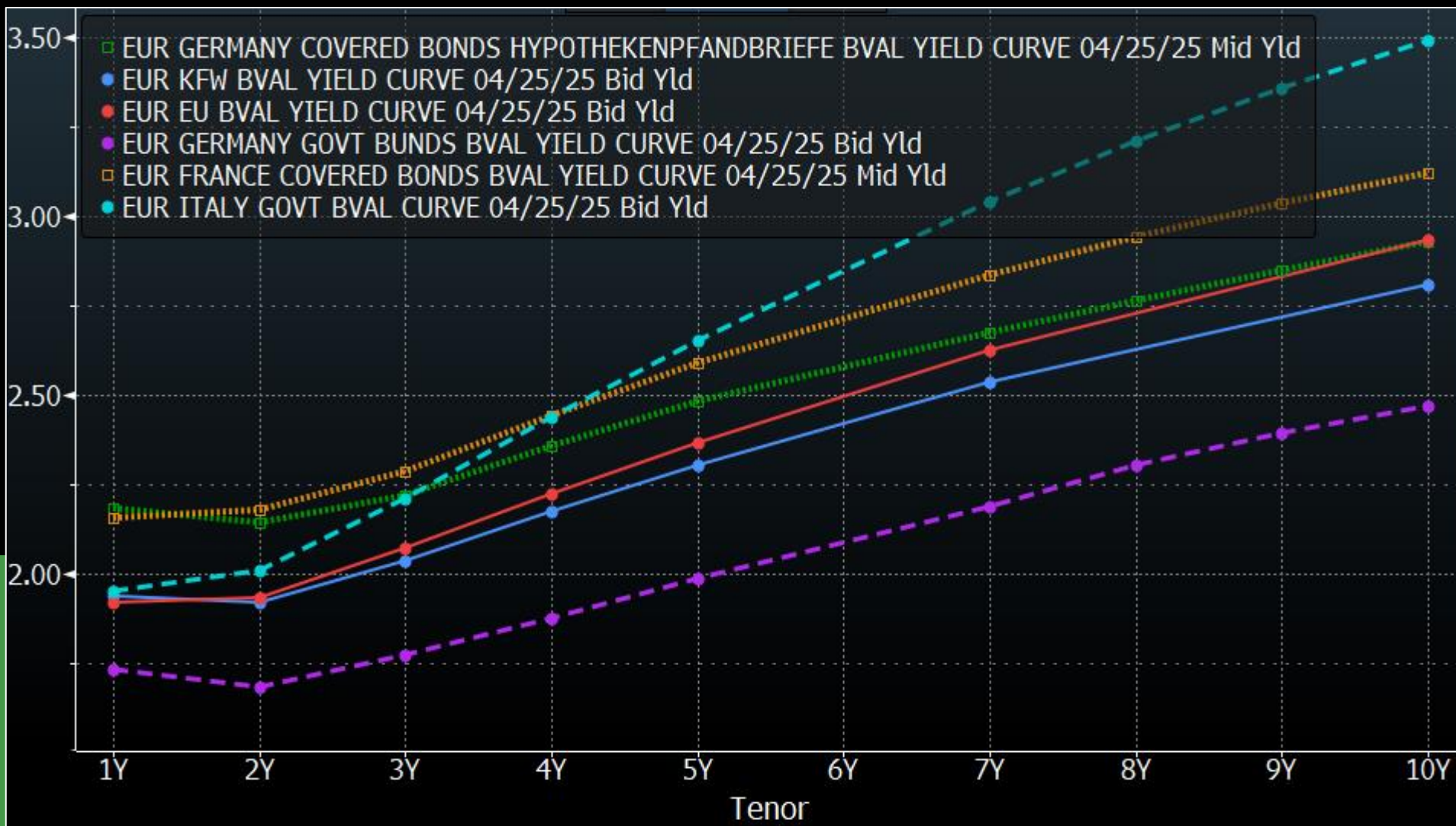
Relative Value: Issuer & Sector (BVAL)Curves



CRVF <GO>

- - - - Govt
 — Supra/Agency
 Covered

Relative Value: Issuer & Sector (BVAL)Curves



CRVF <GO>

Thank you for your Attention!

Any questions please reach out:

Rene Foertsch

rfoertsch@bloomberg.net

Disclaimer

The BLOOMBERG PROFESSIONAL® service and BLOOMBERG Data (the “Services”) are owned and distributed by Bloomberg Finance L.P. (“BFLP”) in all jurisdictions other than Argentina, Bermuda, China, India, Japan, and Korea (the “BLP Countries”). BFLP is a wholly owned subsidiary of Bloomberg L.P. (“BLP”). BLP provides BFLP with global marketing and operational support and service for the Services and distributes the Services either directly or through a non-BFLP subsidiary in the BLP Countries. Certain functionalities distributed via the Services are available only to sophisticated institutional investors and only where the necessary legal clearance has been obtained. BFLP, BLP and their affiliates do not guarantee the accuracy of prices or information in the Services. Nothing in the Services shall constitute or be construed as an offering of financial instruments by BFLP, BLP or their affiliates, or as investment advice or recommendations by BFLP, BLP or their affiliates of “an investment strategy or whether or not to “buy”, “sell” or “hold” an investment. Information available via the Services should not be considered as information sufficient upon which to base an investment decision. BLOOMBERG, BLOOMBERG PROFESSIONAL, BLOOMBERG MARKETS, BLOOMBERG NEWS, BLOOMBERG ANYWHERE, BLOOMBERG TRADEBOOK, BLOOMBERG TELEVISION, BLOOMBERG RADIO, BLOOMBERG PRESS and BLOOMBERG.COM are trademarks and service marks of BFLP, a Delaware limited partnership, or its subsidiaries. © 2015 Bloomberg Finance L.P. All rights reserved. This document and its contents may not be forwarded or redistributed without the prior consent of Bloomberg.

The data included in these materials are for illustrative purposes only. The BLOOMBERG TERMINAL and Bloomberg data products (the “Services”) are owned and distributed by Bloomberg Finance L.P. (“BFLP”) except that Bloomberg L.P. and its subsidiaries (“BLP”) distribute these products in Argentina, Bermuda, China, India, Japan and Korea. BLP provides BFLP with global marketing and operational support. Certain features, functions, products and services are available only to sophisticated investors and only where permitted. BFLP, BLP and their affiliates do not guarantee the accuracy of prices or other information in the Services. Nothing in the Services shall constitute or be construed as an offering of financial instruments by BFLP, BLP or their affiliates, or as investment advice or recommendations by BFLP, BLP or their affiliates of an investment strategy or whether or not to “buy”, “sell” or “hold” an investment. Information available via the Services should not be considered as information sufficient upon which to base an investment decision. BLOOMBERG, BLOOMBERG TERMINAL, BLOOMBERG PROFESSIONAL, BLOOMBERG MARKETS, BLOOMBERG NEWS, BLOOMBERG ANYWHERE, BLOOMBERG TRADEBOOK, BLOOMBERG TELEVISION, BLOOMBERG RADIO and BLOOMBERG.COM are trademarks and service marks of BFLP, a Delaware limited partnership, or its subsidiaries. © 2017 Bloomberg.

Bloomberg