1.3 SUSTAINABLE COVERED BONDS: MARKET OVERVIEW

By Joost Beaumont, ABN AMRO, Maureen Schuller, ING, and Antonio Farina, S&P Global Ratings

The market for sustainable covered bonds

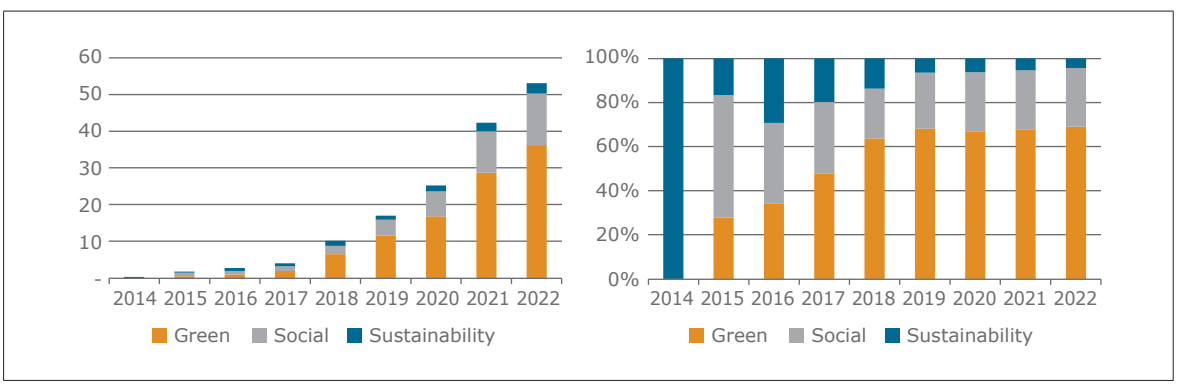
The covered bond market welcomed the first sustainable covered bond in 2014, followed by an inaugural green euro benchmark covered bond in 2015. Furthermore, the first social covered bond was also issued in 2015. The market of sustainable covered bonds has continued to expand ever since, with the total amount outstanding around EUR 54 bn by the end of June 2022, according to Bloomberg data. This key theme chapter will provide an overview of the market, focussing on its size, flavours, new supply, investor base, relative value, use of proceeds and central bank policy related to climate risk.

Size of the sustainable covered bond market

Sustainable covered bonds have been issued in different formats, ranging from green, social, and sustainability covered bonds. The different flavours reflect the different use of proceeds of the bonds (please see for more details chapter 1.6 and 1.7 of the fact book). In short, green covered bonds are mostly aligned with the ICMA's Green Bond Principles, and sometimes also already with the EU Taxonomy with the proceeds of the bonds being used to (re)finance green projects. In case of covered bonds these are often linked to energy-efficient buildings. Social covered bonds are mostly aligned with the ICMA's Social Bond Principles. The proceeds of the bonds are used to (re)finance social projects, which in case of covered bonds is largely related to affordable housing or public lending. Finally, sustainable covered bonds are aligned with the ICMA's Sustainability Bond Guidelines, which tends to be a mix of green and social projects, for instance, energy-efficiency as well as affordable housing. Green covered bonds form the majority of outstanding sustainable covered bonds, as they had a 69% share in total sustainable covered bonds outstanding in June 2022. Social covered bonds had a share of 26% and sustainability covered bonds 5% (see graph below right).

> Figure 1: Outstanding amount of sustainable covered bonds, EUR bn

> Figure 2: Share of green, social and sustainability covered bonds in total, %



Source: ECBC, ABN AMRO, Bloomberg, 2022 data covers H1

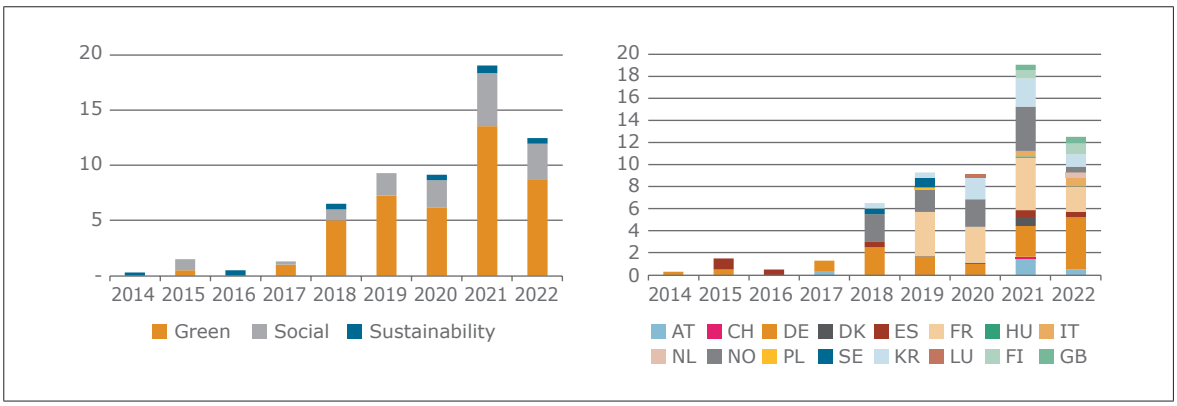
New issuance of sustainable covered bonds gaining momentum

The sustainable footprint of the covered bond market has grown over the years, with new supply having gained real momentum since 2018, setting new records every year. In 2021, more than EUR 19 bn of sustainable covered bonds were issued across different currencies, which was almost triple the volume of sustainable covered bond issuance in 2018. Year-to-date, new supply has already exceeded EUR 10 bn, suggesting that 2022 can become another record year.

A breakdown by covered bond type shows that the majority of sustainable covered bonds is backed by mortgages (91% of the amount outstanding), with the remaining 9% backed by public sector loans. This mirrors the fact that most sustainable covered bonds are green bonds, financing energy-efficient buildings. Finally, issuers of sustainable covered bonds come from an increasing number of countries. At the start, German and Spanish issuers dominated the market, but currently there are 16 jurisdictions out of which sustainable covered bonds are being issued (see graph below right). Regarding currencies, the euro is dominant, while there are also CHF, DKK, GBP, HUF, NOK, PLN, SEK, and USD denominated sustainable covered bonds.

> Figure 3: New issuance of sustainable covered bonds, EUR bn

> Figure 4: New issuance of sustainable covered bonds by country, EUR bn



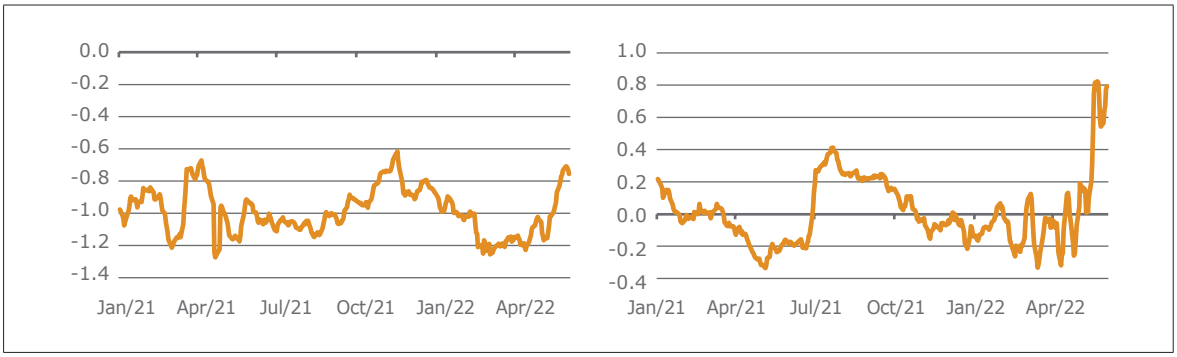
Source: ECBC, ABN AMRO, Bloomberg, 2022 data covers H1

Focusing on the iBoxx euro benchmark covered bond index and taking the July composition, the total amount of sustainable covered bonds in the index equaled EUR 48.5 bn. This is 6% of the total index, which compared to the 3.3% share a year ago. Of these, EUR 32 bn were green covered bonds (4% of total index). This shows that sustainable covered bonds are still a niche product, although their share in the index is gradually accelerating over time. Indeed, the share of sustainable covered bonds in total issuance of euro benchmark covered bonds was around 9.4% in H1 2022, which was below the 17% seen in 2021, but still above the average share of sustainable covered bonds in the overall index. The clarity about what can be classified as energy-efficient buildings within the EU taxonomy, and therefore the mortgages that can be financed by issuance of green (covered) bonds, is likely to support issuance of sustainable covered bonds in the coming years.

A key reason for issuers to come to the market with covered bonds in sustainable format is that these bonds can be priced with a premium (or so-called greenium), largely reflecting the broader investor base (see also below). We compared the trading levels of more than ten green covered bonds versus non-green covered bonds from the same issuer as well as having a roughly similar duration (and all euro benchmarks). This gives a rather pure measure of the greenium. The graph below left shows the results, underlining that in most cases green covered bonds do indeed trade at a (slightly) tighter levels than their non-green peers, with the greenium on average being roughly 1bp.

> Figure 5: Z-spread of green covered bonds versus non-green peers, bp

> Figure 6: Z-spread of social covered bonds versus non-social peers, bp



Source: ABN AMRO, Bloomberg

A similar comparison between social covered bonds and non-social peers gives a mixed picture, with social covered bonds not always trading tighter than non-social peers. On average there is not a real difference between trading levels between social and non-social covered bonds, but this could also be related to the smaller sample size. In any case, the benefit from sustainable covered bonds seems rather modest in the covered bond universe, which likely reflects their already relatively tight trading levels compared to other forms of bank debt.

SUSTAINABLE COVERED BONDS FINANCE A BROAD VARIETY OF ASSETS

Sustainable covered bonds are mostly issued conform the four pillars of the ICMA's Green Bond Principles (GBP), Social Bond Principles (SBP) or Sustainability Bond Guidelines (SBG), with a dedicated environmentally sustainable and/or a social use of proceeds. Sustainability linked bonds (SLB) are still a novelty in the banking segment and have thus far not been issued in covered bond format.

> Figure 7: Sustainable covered bonds seek alignment with the GBP, SBP and SBG

Four components of alignment					
I	**Use of proceeds**				
	Green			***Social***	
1	Renewable energy	√	1	Affordable basic infrastructure	√
2	Energy efficiency	√	2	Access to essential services	√
3	Pollution prevention and control	√	**3**	**Affordable housing**	**√**
4	Environmentally sustainable management of living natural resources and land use	√	4	Employment generation, and programs designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, including through the potential effect of SME financing and microfinance	√
5	Terrestrial and aquatic biodiversity	√			
6	Clean transportation	√			
7	Sustainable water and wastewater management	√			
8	Climate change adaptation	√	5	Food security and sustainable food systems	√
9	Circular economy adapted products, production technologies and processes, and/or certified eco-efficient products	√	6	Socioeconomic advancement and empowerment	√
10	**Green buildings**	**√**			
II	**Process for project evaluation and selection**				
III	**Management of proceeds**				
IV	**Reporting**				
Key recommendations for heightened transparency					
i	Green, social or sustainability bond frameworks				
ii	External reviews				

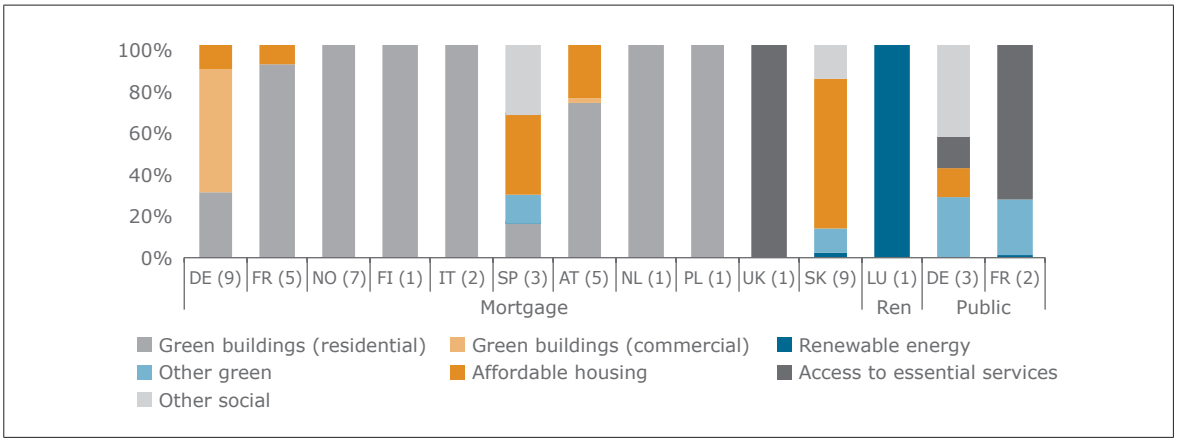
Source: ICMA, ING

A key feature of use of proceeds bonds is that they (re)finance an earmarked portfolio of new or existing eligible green and/or social assets. This portfolio may have an overlap with assets that are eligible as cover pool assets, but does not necessarily have to. As such, there are examples of sustainable covered bonds that allocate proceeds to a portfolio of sustainable loans that are not part of the cover pool. Separate from their use of proceeds, these sustainable covered bonds are secured by sufficient cover assets meeting the asset eligibility criteria stipulated by law and/or the bond programme documentation.

That said, most sustainable covered bond issuers would 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. For that reason, 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. It is important to bear in mind however that sustainable and vanilla covered bonds issued against one cover pool do have the same preferential claim on both the sustainable and non-sustainable assets that are part of the cover pool.

There are banks that issue both green and social covered bonds against the same cover pool, either under one single sustainability bond framework, or via separate green and social frameworks. In turn, there is also an example of a covered bond issuer that issues both social public sector covered bonds and social mortgage covered bonds via the same social bond framework.

> Figure 8: Use of proceeds sustainable EUR benchmark covered bonds*



* Shares of the sustainable portfolio assets in covered bond cover pools by end June 2022. The number of sustainable asset portfolios or cover pools per country are in brackets. The numbers exclude the use of proceeds distribution of issuers that had not yet been published at the time of writing.
Source: Issuer information, ING

In general, green **mortgage covered bonds** primarily finance energy-efficient commercial or residential buildings (63% of all use of proceeds), with green residential real estate loans nowadays being the most important use of proceeds category (51%). Instead, banks with mortgage cover pools (partly) comprised of social housing loans often issue social or sustainability mortgage covered bonds (17% of all use of proceeds).

Access to essential services is the most important use of proceeds category for sustainable public **sector covered bonds** (8%). These bonds were at first solely issued in social format to finance community projects in areas of healthcare and education. However, 2019 also featured the first green public sector covered bond financing assets in the sustainable water and sanitation, waste management, energy efficiency, renewable energy and territorial mobility/soft urban transport segments. In 1H 2022 another green public sector covered bond was issued (re)financing rail infrastructure and public transportation projects.

A **renewable energy covered bond** under the Luxembourg covered bond law was printed in 2020. The bond extended 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 a sustainable covered bond issued under a dedicated legal framework for the issuance of green covered bonds.

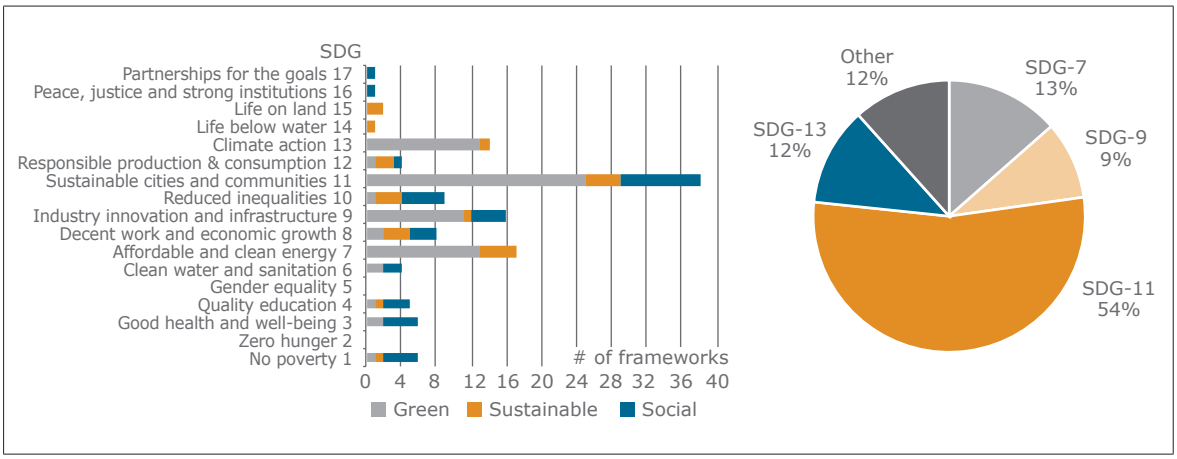
Matching the use of proceeds with the sustainable development goals

Sustainable covered bonds also generally aim to contribute to the achievement of the sustainable development goals (SDG) drafted by the United Nations in 2015. Bonds with a green use of proceeds have a somewhat narrower range of SDGs they support than bonds promoting social purposes. Sustainable cities and communities (SDG 11) is the best sponsored sustainable development goal.

While most sustainable bond frameworks do give an indication of the SDGs they support per use of proceeds category, only few banks would actually report the exact bond proceed allocations to the dedicated SDGs. We tried to quantify the sustainable covered bond proceed distributions to the different SDGs by matching (pro-rata) the reported allocations per use of proceeds category with the different SDGs listed for the specific use of proceeds. This leads to the indicative conclusion that 54% of all sustainable covered bond proceeds is concentrated on the support of SDG 11, followed with a substantial margin by SDG 7 - affordable clean energy (13%), SDG 13 – climate action (12%) and SDG 9 – industry innovation and infrastructure (9%). The remaining 12% is spread across the other SDGs, with the exception of SDG 5 – gender equality and SDG 2 – zero hunger.

Which SDGs are in fact promoted by the different use of proceeds categories is open to debate however. Some second party opinion (SPO) providers, such as Sustainalytics and ISS ESG, give an indication of the SDGs they believe are sponsored via the green, social or sustainability bonds frameworks they review. Sometimes these SPO providers do come to a slightly different conclusion on the SDGs supported than the issuer itself in its sustainability bond framework.

> Figure 9: SDGs contributed to by sustainable covered bonds > Figure 10: Share of proceed allocations to SDGs



* Only for sustainable EUR covered bonds
Source: Issuer information, SPO providers, ING

Use of proceeds and the environmental Taxonomy objectives

Covered bonds with an environmentally sustainable use of proceeds also often strive to contribute to at least one of the six environmental objectives set by the EU Taxonomy regulation, with the climate change mitigation objective so far being the most important one (see chapter 1.6 for further details).

THE RELEVANCE OF SUSTAINABILITY RATINGS

In the past number of years ESG criteria have been increasingly integrated in issuer and covered bond rating methodologies (see ratings chapter). In these cases, ESG aspects are considered to the extent that they impact the credit risk of an issuer or bond. However, there are also external reviewers that assign banks an ESG rating or score purely based upon their environmental, social and governance performance. Moreover, issuers can obtain an external assessment of their green, social or sustainability bond process. The ICMA identifies four types of these bond related reviews:

> Second party opinion (SPO);

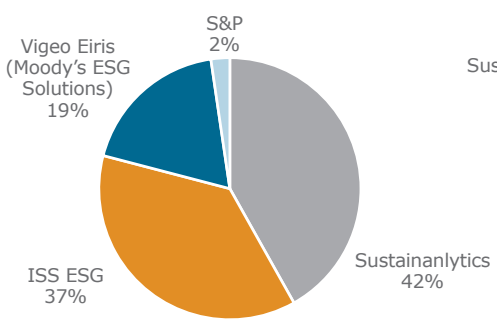
> Verification;

> Certification;

> Green, social, sustainability and SLB scoring/rating.

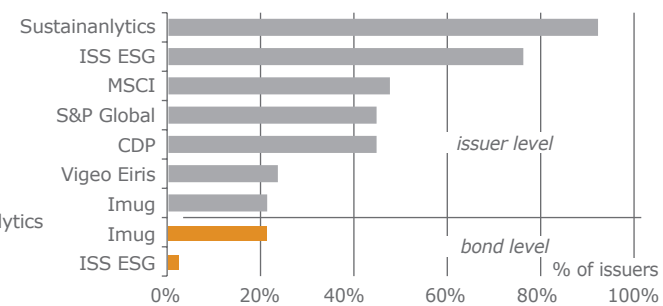
Ahead of issuance, sustainable bond issuers often rely on a **second party opinion** of the applicable sustainable bond framework. This means that an independent institution assesses the quality of the framework and verifies whether the green/social or sustainability bond is aligned with the relevant green/social or sustainability bond principles. Sustainalytics provides the second party opinion for most sustainable covered bond frameworks, together with ISS ESG. The post-issuance verification of the proceed allocations is often performed by an external auditor. In other cases, the appointed SPO provider gives an update of the second party opinion as part of the **verification** process. While external reviews are currently obtained on a voluntary basis, the pre- and post-issuance review process will become more formalised under the EU green bond standard. The draft European green bond regulation also outlines a registration and supervision framework for external reviewers.

> Figure 11: Distribution SPO providers*



* Only for sustainable EUR covered bonds
Source: Issuer information, SPO providers, ING

> Figure 12: The ESG ratings/scores often referred to*



* Only for sustainable EUR covered bonds
Source: Issuer information, Sustainability rating/score providers, ING

Issuers can also obtain a **certification** of their green, social or sustainability bonds or frameworks against a recognized external green, social or sustainability standard or label. As such, several green covered bonds are climate bond certified on behalf of the Climate Bond Initiative (CBI) as an assurance of their consistency with the global warming goals of the Paris agreement. Also the Covered Bond Label of the EMF/ECBC provides a sustainable covered bond label for covered bonds that are, among others, compliant with the Covered Bond Label Convention, and contain a formal issuer commitment to fully use the covered bond proceeds to (re) finance clearly defined environmental and/or social criteria.

Sustainable covered bonds often do not have distinct **sustainable bond ratings**. Imug is one of the rating agencies that provides such ratings to a number of sustainable covered bonds, all of which have been classified in the 'Very Positive' or 'Positive' categories. ISS ESG also provides sustainability bond ratings, but has done so for only one sustainable covered bond thus far. This sustainability bond was classified as 'Approved' as it exceeded the b- approval threshold. Moody's also gave a green bond assessment to one covered bond, but withdrew all its green bond assessments in October 2020 for business reasons.

Of the institutions assigning **company level sustainability scores or ratings**, ISS ESG and Sustainalytics cover the largest number of sustainable covered bond issuers. Other entities that score some of the existing sustainable covered bond issuers on ESG aspects include MSCI, CDP, Imug, S&P Global and Vigeo Eiris (part of Moody's ESG Solutions). While investors would generally view ESG scores as important, we don't find any supporting evidence of ESG ratings explaining the applicable (modest) differences in greeniums within the sustainable covered bond segment. The broad diversity in ESG ratings and scores, and the perceived transparency issues regarding the approaches and methodologies used, may be possible explanations. To overcome these issues, the European Commission may come with a proposal to improve the reliability and comparability of ESG ratings by early 2023, pending the result of an impact assessment.

Investor demand

To date, sustainable covered bonds have generally been significantly oversubscribed in the primary market. Bankers report that a more diverse investor base is looking at these instruments, with both ESG-dedicated funds and traditional covered bond investors placing orders. This incremental demand has not yet consistently translated into a lower cost of funding for issuers – the so-called "greenium" – partly because accommodative monetary policy had, until recently, kept interest rates close to zero. However, some market participants believe that this wider investor base could support sustainable issuance, for example in times of market correction or in the current rising interest rate environment. Even traditional covered bond investors view sustainable issuance favorably. Most have introduced qualitative or quantitative ESG considerations into their investment policies, and green or social covered bonds tend to perform better in their ESG analyses. Most investors focus mainly on the issuer's overall ESG score, rather than on ESG credentials specific to the covered bond. Alignment with the EU Green Bond Principles and Taxonomy is not yet a critical factor, but we expect this to become more important over time.

Investors identify three main sources of concern. The first is the lack of asset segregation, because upon issuer insolvency, green or social assets will be mixed with other non-green assets in the cover pool. This resembles what would happen to investors in green unsecured bonds, who would have the same claims against the issuer's insolvency estate as the non-green investors. The second is a lack of liquidity – sustainable covered bonds are generally easy to sell but very difficult to buy. Third is so-called "greenwashing", or the risk that sustainability claims made by issuers might be overstated or unreliable. While the structural issue of asset segregation will probably not be addressed until we see the first programs that are exclusively backed by sustainable assets, an increase in issuance volumes could assuage the second concern and recent regulatory developments may help with the third.

Central banks and climate change

Climate change brings economic and financial risks that central banks can no longer ignore. Over 100 central banks and financial regulators have now joined the "Network for Greening the Financial System" (NGFS): a network focused on climate change risk management, of which the largest central banks are now part of. It recently published a "toolkit" of ways in which monetary policy institutions can address climate change in their operations.

Central banks have essentially three areas of focus: i) financial stability: how climate change may affect the soundness of banks and risk of the overall financial system, ii) research: understanding how climate change may impact economic growth and inflation, and consequently monetary policy decisions, and iii) monetary policy: addressing whether central banks should help to mitigate climate change through their policies and how to do so. Climate-related risks can impact the financial system in two ways: physical risk – such as weather events related to hotter temperatures, where physical damage to property or businesses increases losses for banks and insurers, and transition risk, where climate policies to green the economy can be costly for firms or create "stranded" assets, for example by making reserves of coal, oil, and gas unburnable.

For financial stability purposes, regulators are using scenario analysis, stress tests, and other tools to assess the financial sector's vulnerability to climate change, foster higher disclosure, and encourage banks to embed environmental risks in their strategy and risk management. Over the past couple of years, the European Central Bank (ECB), Bank of England (BoE), and the French Autorité de Contrôle Prudentiel et de Resolution (ACPR; the supervisory arm of the Banque de France) have started to conduct "top-down" climate risk-related stress test exercises on the European financial institutions they supervise. Supervisors' climate stress tests help identify the main sectors and geographies generating transition and physical risks for banks' assets and seek to quantify their exposure to these risks. Supervisors are not yet penalizing banks with higher capital requirements for such long-range risks, but they are ratcheting up the pressure on bank management to proactively understand and reduce them. The ECB has also launched a "bottom-up" climate risk stress test in 2022, with the results published in July. Contrary to previous economy-wide stress tests, the projections will not be made "top-down." Rather, the banks themselves will formulate the projections, using their own credit and market risk models under scenarios set by the ECB. This will require much more work from individual banks but produce more revealing results. This stress test is part of a broader supervisory push to move climate risks higher up the risk management agenda for European banks and a wider regulatory push to incorporate ESG risks into the three pillars of the Basel prudential framework. It has many similarities with the U.K. Prudential Regulatory Authority (PRA)'s Climate Biennial Exploratory Scenario, also conducted this year. In both cases, supervisors are using the long-term scenarios developed by the NGFS and seek to assess the business model transformations likely to be triggered under different climate change pathways, in addition to the potential credit losses. Both the ECB and the PRA announced that they will not impose additional capital requirements on the back of these stress tests. Nevertheless, we can assume that regulators will use the results to inform their day-to-day supervision, particularly where they identify outlying banks that are particularly unprepared or have poor risk management or data capabilities.

Climate change and the transition to net zero are also likely to directly affect monetary policy. First, if the financial system is in a weaker position as a result of physical risk or stranded asset related losses, this could impair transmission of monetary policy. Second, transition to a hotter planet or a greener economy are both likely to involve large structural changes from today's macroeconomic environment. These could affect the neutral rate, which guides central banks' monetary policies. As such, in a world of higher temperatures, labor productivity is likely to be lower and capital accumulation could be impaired by recurrent physical risk events that may damage infrastructure, while households and firms may choose to retain more precautionary savings. On the other hand, the transition to net zero, which will trigger sizeable green innovation could also spur more rapid productivity gains, increasing the neutral rate. Finally, there are clear impacts on price stability, the main focus of central banks' mandates. As physical risks become more frequent and severe, output and inflation dynamics are likely to become more volatile. Similarly, a quicker transition to net zero via higher carbon pricing or stricter regulations could trigger output fluctuations, when firms need some time to adjust and lead to price shocks. ECB president Christine Lagarde has said that climate change policy is "mission critical" for her term. Following its 2021 strategy review, the ECB presented a "climate action plan" to further incorporate climate change considerations into its monetary policy framework. For now, the ECB is focusing on financial stability and improving disclosure and research, to include the impact of climate-related risks in its assessments.

In a second stage, the ECB may consider more active policies to foster the transition to net zero, such as "green quantitative easing", "green targeted lending operations", or "green collateral", which would involve giving more advantageous terms to "greener" beneficiaries of bond-buying or bank liquidity programs. However, whether using those tools would breach the "market neutrality" principle of central bank policies and be more akin to fiscal policy is still under debate. For example, when buying assets, central banks buy in line with issuance in the market, in order not to distort the relative prices of bonds. This would be different if the central bank starts favoring "green" assets. That said, some argue that firms eligible for the ECB's bond purchases and bond portfolio, are themselves not representative of the economy and with a bias to "non-green assets". Additionally, there is no "green benchmark" to date, with many of the existing ESG frameworks still criticized, which means central banks could potentially run into issues of "greenwashing". Second, it could be difficult for central banks to address the long-term problem of climate change with their cyclical policies, especially as corporate bond buying programs are typically just a small part of total purchases.

Conclusion

This chapter addressed multiple facets of the sustainable covered bond market. Although sustainable covered bonds still remain a niche in the covered bond market, their share has been growing every year. Sustainable covered bonds finance a wide range of green and social loans, often related to energy-efficient buildings, affordable housing and access to essential services. However, due to the tight spread levels of covered bonds, the greenium between sustainable and vanilla covered bonds remains modest and is in some cases not even visible. Meanwhile, the tools available to investors to make a distinction between sustainable versus less sustainable investment alternatives continue to evolve. To name an example, ESG criteria have been increasingly integrated in issuer and covered bond rating methodologies, while issuers also often obtain an external assessment of their green, social or sustainability bond process from external reviewers. Besides, central banks have become more and more involved in climate-related issues. The potential integration by central banks of climate considerations into any future purchase, targeted lending operations or collateral eligibility initiatives, will by then only form a further positive incentive for investors to buy sustainable assets, including sustainable covered bonds.