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Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

29 March 2023 ♦ 12/2023

Marketing communication (see disclaimer on the last pages)

Agenda

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Market overview Covered Bonds

Author: Stefan Rahaus

CIBC reopens primary market once again

In 2022, the Russian invasion of Ukraine led to a five-day cessation of primary market activity. This year, issuers stayed away from the new issuance market for eleven consecutive trading days up until Monday of this week. In both of these periods, which were characterised by a mood of uncertainty, it was the Canadian Imperial Bank of Commerce (CIBC; ticker CM) that was first to have the confidence to return to the market and approach investors. Once again it successfully placed a 4-year covered bond. With a final reoffer spread of ms +33p (initial guidance: ms +35bp), the EUR 1.5bn bond generated an order book of EUR 1.8bn. Just over 12 months ago, the Canadian bank issued a 4-year EUR 2.5bn bond at only ms +6bp. Nevertheless, as was the case last year, CIBC's bond launch opened the door for other new deals. Yesterday (Tuesday), two more non-eurozone issuers went to the market, namely Australia & New Zealand Banking Group (ticker: ANZ) and Bank of Montreal (ticker: BMO). Both banks opted for the shorter maturity segment (ANZ: 2y; EUR 1.5bn; ms +15bp; BMO: 3.25y; EUR 2.0bn; ms +28bp). We also saw the first green covered bond in benchmark format from Sweden. Stadshypotek (ticker: SHBASS) issued the first covered bond backed by green Swedish residential mortgages, following in the footsteps of Norwegian issuers, which have been active in the green ESG segment since 2018, and Finnish issuers, who have been active here since 2021. A volume of EUR 1.0bn was placed at a final issuance spread of ms +16bp (initial guidance: ms +20bp area). For all four issuers, the deals were their first in the market this year.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Bank of Montreal	CA	28.03.	XS2607350985	3.3y	2.00bn	ms +28bp	AAA/Aaa/AAA	-
Stadshypotek	SE	28.03.	XS2607344079	5.0y	1.00bn	ms +16bp	- / Aaa / -	X
ANZ	AU	28.03.	XS2607079493	2.0y	1.50bn	ms +15bp	AAA / Aaa / -	-
CIBC	CA	27.03.	XS2607063497	4.0y	1.50bn	ms +33bp	AAA / Aaa / --	-

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research (Rating: Fitch / Moody's / S&P)

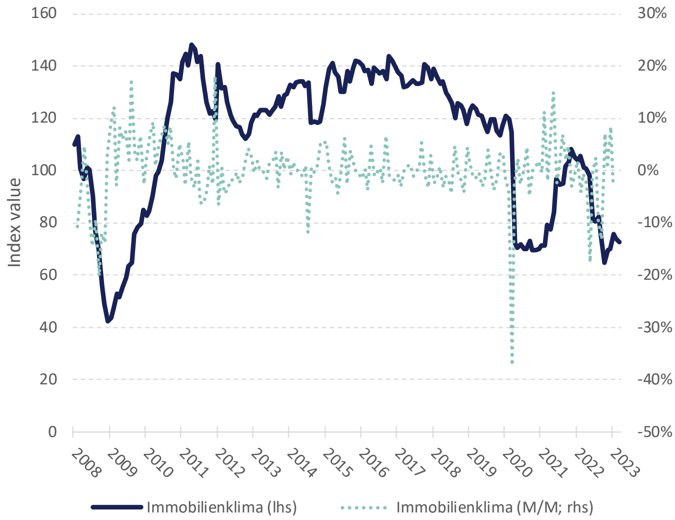
Secondary market

As general market sentiment brightens and volatility eases, including in swap spreads, movement in spreads calmed in the secondary market. Liquidity was also significantly up on the previous week and the general spread level has tightened slightly. The ASW spread on Credit Suisse's outstanding EUR benchmark (Ticker: CS; ISIN: CH1230759495) fell from the 115bp to 120bp area to below 70bp. As in previous times of uncertainty, customers are focused on maturities of up to 5 years and we are not yet expecting a sustained trend reversal in ASW spreads for covered bonds. With the start of Q2 and the relatively high spreads at present (compared with the start of March) for unsecured bonds, we expect to see lively primary market activity in the covered segment, which is countering a strong spread tightening on the secondary market via the necessary new issuance premiums, according to our assessment.

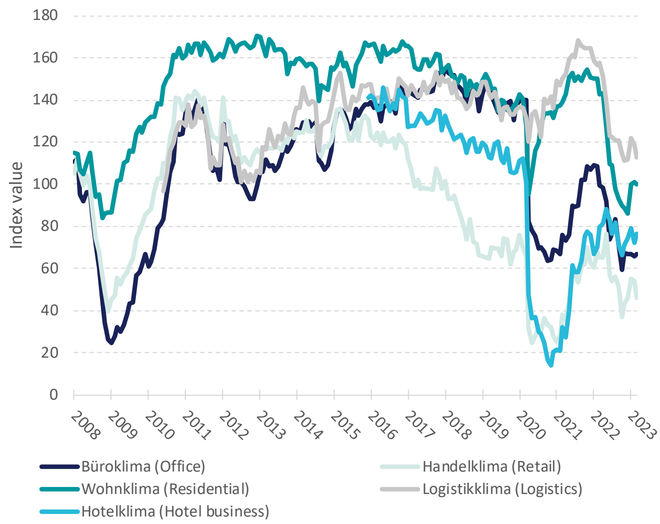
Deutsche Hypo real estate climate: sentiment remains gloomy

Having recovered slightly in the months between November 2022 and January 2023, the trend reversal already evident in February 2023 continued in the latest survey of around 1,200 property experts. The overall index of the Deutsche Hypo real estate climate fell in March versus the previous month by 2.2% from 74.1 to 72.5 points. The drop was driven primarily by the downturn in investment sentiment (-3.2% to 51.5 points) and less so by the earnings climate (-1.5% to 95.2 points). There had already been a drop of 2.1% in February 2023 versus January 2023. The year-on-year fall shown by the current 183rd monthly survey stands at 28.4%. Movement in the sub-components of the Deutsche Hypo real estate climate varies considerably. The biggest slump was recorded by the retail climate with a fall of 14.3% to 46.2 points. Logistics, which continues to be the strongest segment, also recorded a fall in sentiment of 5.2% versus the previous month and now stands at 112.7 points. The residential property segment stagnated virtually sideways (-0.6%; 100.1 points), while the office climate made slight gains from 65.6 to 66.9 points (+1.9%). The biggest improvement was recorded by the hotel climate. Clear strong demand for overnight stays led to a rise of 6.3% to 76.7 points. Overall, the data in the indices confirms our view that the correction and/or normalisation of prices in the real estate sector will continue. We continue to rule out significant distortions and therefore do not currently consider the intrinsic value of the assets in the cover pools of German Pfandbrief issuers as at risk. Nevertheless, in the wake of current uncertainty and especially in light of the rapid interest rate rises, the focus of market players is turning increasingly to exposure in commercial real estate financing.

DH real estate climate: index and change (M/M)



DH real estate climate: segments



Source: Deutsche Hypo, bulwiengesa, NORD/LB Markets Strategy & Floor Research

Fitch I: UK covered bonds robust despite weaker economic outlook

In two peer review reports on British covered bond issuers (major banks and medium-sized credit institutions), the rating agency Fitch considers the creditworthiness of the corresponding programmes to be well secured against any possible deterioration in the cover pools despite macroeconomic uncertainties. Rising interest rates and higher inflation, especially for daily essentials, are putting pressure on consumers' ability to service the interest and capital payments on loans. A resultant potential downturn in asset quality in the cover pools is countered first by the high credit quality of the issuing banks and building societies (BS), with issuer default ratings (IDR) of A- to AA-. The AAA ratings of outstanding covered bonds from the United Kingdom are protected against an IDR downgrade by a buffer of three to six notches. Secondly, strict lending guidelines, which lead among other things to low average loan-to-value ratios, are likely to ensure the credit quality in the cover pools. Furthermore, the programmes have high overcollateralisation levels and the assets are subject to regular Asset Coverage Tests (ACT). According to our records, the major banks Lloyds, National Westminster, Nationwide and Santander UK together have an outstanding EUR-benchmark volume of EUR 20.3bn, while Barclays UK and HSBC UK do not currently have any EUR-benchmarks outstanding. Clydesdale Bank, Coventry BS, Leeds BS, Skipton BS and Yorkshire BS are classified by Fitch as medium-sized banks, and together account for an outstanding benchmark volume of EUR 6.9bn.

Moody's I: alignment of Banco Santander Totta programme with new Portuguese legislation viewed as positive

In March, Banco Santander Totta became the first issuer from Portugal to align its covered bond programme with the new Portuguese covered bond legislation. This change relates both to outstanding covered bonds and any new deals. Moody's views this step as positive due to the fact that the EU directive, which has now been transposed into national legislation, improves the monitoring and liquidity of the cover pool amongst other changes. The requirements for triggering a maturity extension have also been defined more clearly. The regulatory framework for Portuguese covered bonds has been strengthened, as the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários [CMVM]) now acts as the supervisory authority rather than the Bank of Portugal and its powers have been significantly expanded. The requirements relating to the 180-day liquidity buffer improve liquidity in the cover pool. The new Portuguese Covered Bond Act does not include any regulations on overcollateralisation. However, Banco Santander Totta has contractually undertaken to maintain overcollateralisation of 5%. This clause chimes with Article 129 (3a) of the Capital Requirements Regulation (CRR). We assume other credit institutions will follow the example set by Banco Santander Totta in order to also benefit from the rating agencies' positive assessment of the new Portuguese Covered Bond Act. Banco Santander Totta has two covered bonds in the EUR-benchmark segment with residual maturities of 1.1 to 4.5 years, both issued in 2017 and each with a volume of EUR 1.0bn.

Moody's II: changes in legal framework for Czech bonds welcomed

Last week, Moody's published its current analysis of the legal framework for covered bonds from the Czech Republic. The report takes account of the changes in Czech legislation following the integration of the EU Covered Bond Directive, which came into force in May 2022. To summarise, the rating experts from Moody's acknowledged the improved protection for investors as well as the more precise wording, which are seen as "credit positive" for covered bond issues. Specifically, reference is made, among other aspects, to a more detailed and strengthened prior unsecured claim on issuers. This is particularly relevant for covered bond investors if the proceeds from the cover assets are not enough to satisfy their claims if required (issuer default). Furthermore, additional overcollateralisation of 1% is to be maintained in order to cover the costs of managing the cover pool after an issuer default. The rules relating to the liquidity buffer have been reformulated and now clarify that the issuer must cover the capital repayment on the original maturity date even if the bond is a soft bullet bond. In many other jurisdictions, the repayment amount only has to be held in the liquidity buffer for the postponed end maturity date. The requirements regarding the triggers for maturity extension have also been detailed precisely. The realisation of assets in the cover pools through disposals has been simplified in the revised legislation, whereby in the case of insolvency, the covered bond programmes can be transferred to other issuers in a relatively uncomplicated process before realisation takes place. However, Moody's also sees weaker features in the adapted legal framework in the Czech Republic. For instance, according to the rating agency there are no specific requirements or tests to deal with interest rate and currency mismatches between assets and issued covered bonds. Moreover, the legal framework does not mandate any supervisory authority (cover pool monitor) for the cover pool that is tasked with carrying out checks and has to report on compliance of the cover pool. In addition, the specified 100% loan-to-value ratio is viewed as high compared with other jurisdictions, which mainly define thresholds of 80% for residential property and 60% for commercial mortgage loans. With regard to overcollateralisation, the requirements of the Czech Covered Bond Act stand at 2% and according to Moody's are therefore lower than the usual minimum of 5% in other EU member states.

UNICZ covered bonds not classified as European Covered Bond (Premium)

The two outstanding EUR benchmarks from UniCredit Czech Republic and Slovakia (UNICZ; ISIN XS2541314584; Final Term Sheet and ISIN XS2585977882; Final Term Sheet) do not carry the "European Covered Bond (Premium)" label. Covered bonds, which also comply with the prerequisites of Article 129 of the CRR in addition to the Czech legal framework, can be designated "European Covered Bond (Premium)". Covered bonds that are compliant with the legal framework but not Article 129 of the CRR may carry the European Covered Bond label. In our opinion, a "European Covered Bond" without "Premium" coupled with a Aa2 rating from Moody's (which pursuant to the CRR leads to a Credit Quality Step 1 [CQS 1]) results in a risk weighting of 20%. As long as the risk positions versus institutions are in line with Article 129(1)(a) and Article 129(1)(c), we nevertheless assume LCR level 1 here, since the relevant additional requirements (CQS 1, overcollateralisation of at least 2%, deal size ≥EUR 500m) are also fulfilled.

Fitch II: ratings for covered bonds from UBS and Credit Suisse confirmed

Last week, we commented in our weekly publication on the takeover of Credit Suisse by UBS and in this context also referenced the EUR benchmark programme of Credit Suisse [Credit Suisse (Schweiz) AG]. With regard to the three outstanding programmes of the former entities of UBS AG, Credit Suisse (Schweiz) AG and Credit Suisse AG, the risk experts at Fitch recently commented that the current "AAA" ratings would be confirmed. The unchanged assessments and retention of top ratings for all three programmes follows the announcement of the UBS takeover of the Credit Suisse Group AG.

Market overview
SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Jan-Phillipp Hensing // Valentin Jansen

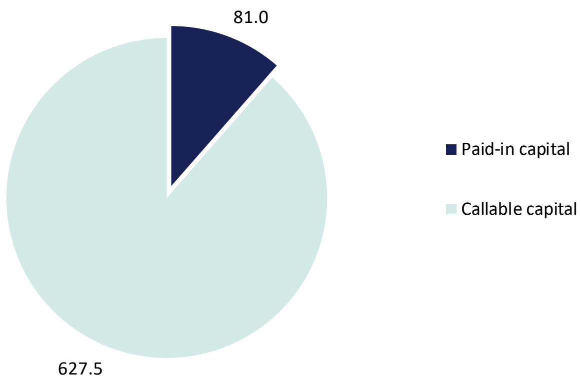
On our own behalf: Issuer Guide – European Supranationals 2023 now published

We recently published our Issuer Guide – European Supranationals 2023. The segment of European supranational entities is the biggest within the global supranational market. With a bond volume outstanding of EUR 1,195.9bn, European supras account for around two-thirds of the supranational market as a whole. These European supranationals dominate the supply of EUR denominated bonds in particular. The EUR bond volume outstanding from European supranationals totals EUR 916.7bn. The corresponding amount from other supras amounts to just a fraction of this. At the same time, the segment of European supranationals as a sub-market has also seen more changes in recent years than any other, including the sovereign debt crisis, mandate changes and various programmes established to mitigate the effects of the Covid-19 pandemic.

ESM: Croatia officially joins as 20th member state

The European Stability Mechanism (ticker: ESM) has announced the official accession of Croatia as the 20th member state in a press release. Given the introduction of the euro on 1 January 2023, the ESM already approved Croatia's application for ESM membership on 5 December 2022. Before now, only ratification of the treaty by Croatia had still to be finalised. Since the establishment of the ESM, this is the third enlargement of membership, after Latvia joined in 2014 and Lithuania in 2015. As an ESM member, Croatia will therefore also be represented on the Board of Governors, the supranational institution's highest decision-making body, and have a seat on the Board of Directors. Participation in the capital stock amounts to EUR 3.7bn in the first twelve years, of which EUR 422.3m will be paid in five annual tranches. As Croatia's GDP per capita is less than 75% of the EU average, it benefits from a temporary correction period lasting until 2035. Subsequently, the subscribed capital will be adjusted by EUR 2.04bn to EUR 5.74bn and the paid-in capital will be increased by EUR 233m to a total of EUR 655.3m.

Capital structure after Croatia's accession (EURbn)



ESM capital contribution key after Croatia's accession

Member State	Contribution (%)	Member State	Contribution (%)
Belgium	3.43%	Latvia	0.27%
Germany	26.74%	Lithuania	0.40%
Estonia	0.25%	Luxembourg	0.25%
Ireland	1.57%	Malta	0.09%
Greece	2.77%	Netherlands	5.63%
Spain	11.73%	Austria	2.74%
France	20.08%	Portugal	2.47%
Croatia	0.52%	Slovenia	0.46%
Italy	17.65%	Slovakia	0.98%
Cyprus	0.19%	Finland	1.77%

Source: ESM, NORD/LB Markets Strategy & Floor Research

Refinancing of the Canadian provinces – an overview

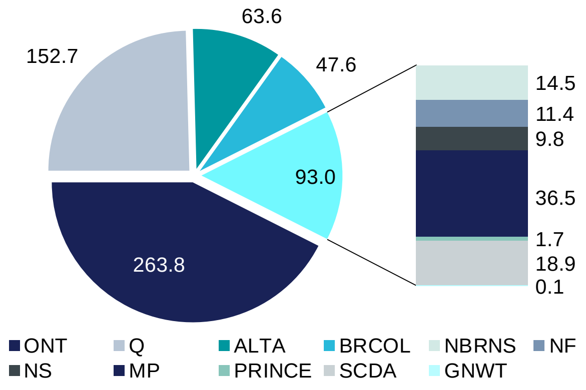
Province/ Territory	Outstanding bond volume (EURbn)	Share of foreign currencies	EUR-bond volume (EURbn)	No. of EUR benchmarks	Issuance volumes 2022 (EURbn equivalent)
Alberta	63.6	27.9%	4.7	3	0.6
British Columbia	47.6	17.8%	2.3	1	2.7
Manitoba	36.5	18.4%	1.8	1	2.4
New Brunswick	14.5	8.8%	-	-	1.1
Newfoundland and Labrador	11.4	0.7%	-	-	0.8
Nova Scotia	9.8	0.0%	-	-	-
Northwest Territories	0.1	0.0%	-	-	-
Nunavut	-	-	-	-	-
Ontario	263.8	14.6%	10.8	7	22.3
Prince Edward Island	1.7	0.0%	-	-	-
Quebec	152.7	24.8%	20.0	12	14.3
Saskatchewan	18.9	5.5%	-	-	1.0
Yukon	-	-	-	-	-
Total/Average	**620.7**	**18.0%**	**39.6**	**24**	**45.2**

Foreign currencies converted into EUR at the respective issue date
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

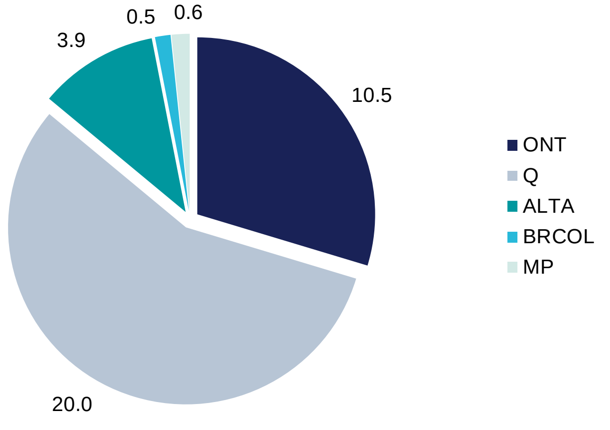
Canadian provinces: financial year ends on 31 March

In total, the volume of bonds outstanding issued by Canadian provinces amounts to the equivalent of EUR 620.7bn. However, just 6.4% of these deals are denominated in EUR, so the euro is of minor significance from the perspective of Canadian issuers. However, with an outstanding volume of EUR 39.6bn, the euro is the second most important foreign currency after the USD (equivalent to EUR 57.1bn). The focus on ultra-long maturities is interesting: more than one third of the outstanding liabilities will not mature until after 2033 (38.9% and rising). Given that only Alberta, British Columbia, Ontario and Quebec, and now Manitoba as well, have issued large-volume EUR bonds upwards of EUR 500m, a detailed future analysis is again particularly relevant. All Canadian provinces are currently preparing their budget for the new financial year, which starts on 1 April.

Comparison of outstanding bond volumes (EURbn)



Outstanding EUR benchmark volumes (EURbn)



Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Hesse, Baden-Wuerttemberg, NRW and Brandenburg step up ESG investment strategies
The State of Hesse, Baden-Wuerttemberg, North Rhine-Westphalia (NRW) and Brandenburg are jointly of the opinion that climate risks also increasingly represent financial risks. In the four joint press releases on 20 March, it was announced that the state-owned pension funds would be based on an (even) more sustainable investment strategy, taking into account the requirements of the Paris Climate Agreement. In the case of Hesse, a volume of around EUR 5.0bn is of relevance here (market value as at 31 December 2022), in the case of Baden-Wuerttemberg EUR 5.7bn as well as EUR 13.1bn for NRW and EUR 954.3m for Brandenburg. “Sustainable financial policy means considering not only financial but also environmental and social aspects and taking social challenges into account at an early stage. When pension funds are geared towards sustainability, climate-neutral and high-yielding investment are not mutually exclusive in the long term,” as the finance ministers of the four German Laender, Michael Boddenberg, Dr Daniel Bayaz, Dr Marcus Optendrenk and Katrin Lange, emphasise in the press release. Since 2019, the capital investments of the four federal states have focused specifically on sustainable indices (ESG Laender fossil free). By their own accounts, they have already invested a total volume of around EUR 11bn in this to date, which will increase as a result of current sustainability efforts. In future, the strictest European standard for climate-neutral financial investments (Paris Aligned Benchmarks) will apply to the indices. In this way, the Laender are aiming to consistently pursue a decarbonisation path. In addition, companies are no longer considered investable if they seriously undermine the 17 UN Sustainable Development Goals (SDGs) and the environmental goals of the EU taxonomy. Incidentally, NRW has also excluded nuclear energy since 2019, with fossil fuels added in December 2022. This makes its specifications in part stricter than the EU taxonomy, which was most recently expanded - albeit under strict conditions and amid considerable controversy - to include activities in the nuclear and gas energy sectors.

State of Lower Saxony launches second supplementary budget
Last Wednesday, Finance Minister Gerald Heere presented the draft of the second supplementary budget 2023 in the parliament of Lower Saxony. The draft budget provides for an additional volume of EUR 776m, of which EUR 472m is to be used to tackle the refugee situation (in the areas of intake capacity, accommodation, cost settlement lump sum, tax group settlement) as well as the associated relief for the local authorities. Of the EUR 472m, EUR 362m is to be passed on to the local authorities as direct financial aid. According to Heere, the second supplementary budget addresses the most pressing challenges at the moment. At the same time, “pragmatic measures” will create the basis for necessary investment in education, healthcare, housing and climate protection. The volume of EUR 970m from the first supplementary budget was already adopted at the end of 2022 as an emergency programme to mitigate the consequences of the energy crisis. “The state government of Lower Saxony is and remains a partner of the local authorities, even in difficult times”, Heere underlined with regard to the second supplementary budget. The federal state’s expenditure in the area of refugees is estimated at around EUR 1.1bn for 2023 - the federal government will pay only 23% of this amount (EUR 262m). Overall, the second supplementary budget will be financed in particular from federal funds for refugees and for the KiTA Quality and Participation Improvement Act, as well as from the settlement of payments under the federal financial equalisation system for 2022. The 2023 budget volume of the State of Lower Saxony will thus increase to around EUR 42bn.

CADES funding in 2022: World leader with nine social bond issues

Caisse d'Amortissement de la Dette Sociale (ticker: CADES) frequently attracts attention in our coverage by issuing sustainability bonds in the social bonds sub-segment. This was also the case last year, when the state finance agency placed nine social bonds in both EUR and USD to repay and finance the debts of the French social security system. As indicated, among other aspects, by order books that were oversubscribed several times (e.g. CADES 1 ½ 05/25/32 with an oversubscription rate of 5.0x), the social bonds again met with keen interest on the markets. Based on our narrow definition (EUR benchmarks), we recorded a new issue volume of EUR 26bn in six transactions (social bonds) under the ticker CADES in 2022 in our in-house database, with maturities varying between three and ten years. In the full funding year 2022 (total volume: EUR 38.1bn), the issuer stated that it approached its investors with a social bond format in nine out of twelve bond issues, making it the world leader for new issues in this sub-segment in 2022. In terms of general ESG primary market activity to date in 2023 (reference date: 21 March), February in particular set the bar very high. At EUR 21.7bn, the issuance volume was more than twice as high as in the second-strongest February in 2020 (EUR 9.0bn). As expected, CADES played a key role. Out of a total of 15 new ESG issues, CADES carried out the largest transaction worth EUR 4bn, the proceeds of which are naturally intended for social use due to the public mandate. CADES also stands out in terms of the market shares of the individual social bond issuers, as it has already issued EUR 9bn since the beginning of 2023, accounting for over 70% of the new issue volume in this segment. We already dealt extensively with EUR-denominated ESG benchmarks in the SSA year 2023 to date in our weekly publication of 22 March.

Primary market

As you can see from the table below, the primary market for our SSA coverage was largely quiet. Nevertheless, we have one tap to comment on. As we already mentioned in our last issue, according to the European Union (ticker: EU) funding plan, a syndicated transaction was due this week. Instead of a new issue, the issuer chose to increase the green bond EU 2 ⅝ 02/04/48 by EUR 6bn to EUR 11bn. As usual, there was enormous interest. The deal was more than 12x oversubscribed with an order book of EUR 73bn, and, compared with the guidance of ms +70bp area, the bond tightened by two basis points to ms +68bp in the course of the marketing phase. This means that the EU has already tapped a record nine bonds this year! In the next issue we will see several more deals, as four issuers have already mandated. Berlin (ticker: BERGER) intends to issue a EUR benchmark bond with a six-year maturity. In contrast, the Flemish Community (ticker: FLEMSH) has mandated for a ten-year term. In the ESG segment, we are also shortly expecting NRW.BANK (ticker: NRWBK) to take to the floor with a social bond (10Y, EUR 1bn WNG) and in the long maturity segment Société du Grand Paris (ticker: SOGRPR) with a green bond (30Y).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
-	-	-	-	-	-	-	-	-

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research (Rating: Fitch / Moody's / S&P)

Covered Bonds
The Moody's covered bond universe – an overview

Author: Stefan Rahaus

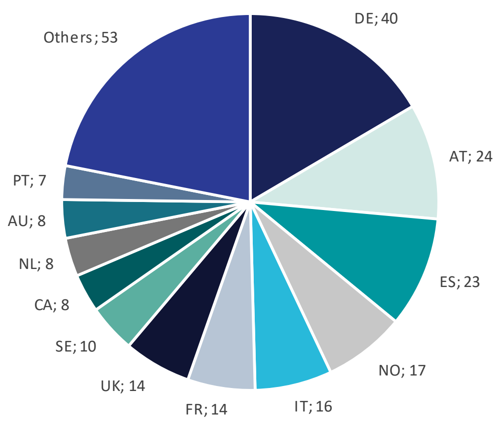
Macroeconomic landscape: economic outlook has improved, although property markets are facing headwinds

According to the latest Sector Update from Moody's, which the rating agency publishes on a quarterly basis, the macroeconomic environment for covered bonds from the eurozone has brightened in terms of the general economic trends. The most alarming fears in connection with the energy crisis have not materialised, with developments in the energy supply situation having also turned out better than expected, while government programmes are helping to support consumption and the economy. However, looking towards the future, it is expected that economic activity in the eurozone will remain weak and that a more restrictive monetary policy course will increasingly put the brakes on consumption and investment. Moody's states that the boom seen in the real estate sector of industrialised nations over the past few years has now ground to a halt. A correction in house prices, which have risen sharply in recent years, should now start to set in as a result of increased interest rates on mortgages and weaker economic growth to mirror fundamental economic data. While weaker price increases or even a very significant correction in some jurisdictions can be expected, the rating experts at Moody's are not anticipating any disorderly decline in prices similar to that seen in the global financial crisis of 2008/09 due to the intrinsic value of the assets in the cover pools. However, Moody's is expecting the drop in house prices to be sharper in the UK and Germany, with more modest declines priced in for Portugal, Ireland, Italy and France. For 2023, Moody's evaluates the outlook for national credit ratings as negative on a global level. For banks, the outlook is stable, with rising interest rates and strong balance sheet ratios offering a line of defence against a global downturn. In Europe, the outlook for the banking systems of some countries was recently downgraded from stable to negative (for example, Germany and Italy in November last year, among others).

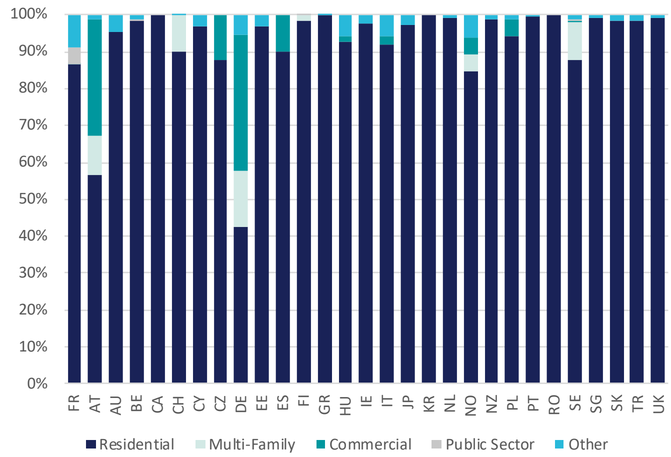
Moody's rates 242 covered bond programmes around the world

Moody's published its most recent Sector Update (Q1 2023) on 9 March 2023. Ratings reports from the third quarter of 2022 form the majority of the data basis for this report. In total, rating assessments were provided for 242 covered bond programmes from 30 separate jurisdictions, which means that the rating agency covers a significant proportion of the global covered bond universe as a whole. In terms of the number of programmes per jurisdiction, Germany (40) accounts for the highest share, followed by Austria (24) and Spain (23). Twelve countries, each with seven or more programmes, account for 78.1% (189 programmes) of the overall number of covered bond programmes. The remaining 21.9% (53 programmes) are spread across 18 jurisdictions with six or fewer programmes. With a share of 201 programmes (83.1%), mortgage-backed programmes account for the majority of the Moody's covered bond universe. In addition, Moody's rates 39 public sector programmes (16.1%) from ten countries. These are, however, primarily concentrated in Germany (12 programmes), Austria (9), Spain (6) and France (4). Finally, at present Moody's rates just one covered bond programme backed by ships and one other programme categorised as "Other" (both based in Germany), which round off the 242 ratings overall.

Number of programmes with a Moody's rating



Structure of the cover pools (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

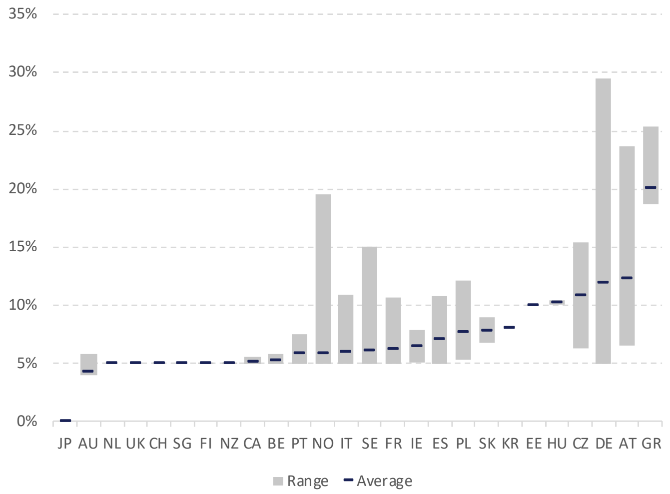
Focus on mortgage programmes from EUR benchmark jurisdictions

Looking at the Moody's covered bond rating universe, it is therefore clear that there is a distinct focus on mortgage programmes. Moreover, this focus is almost totally on EUR benchmark jurisdictions. Only Greece (5 programmes), Turkey (3), Hungary (2), Cyprus (1) and Romania (1) do not currently have any outstanding covered bond issuances in the EUR benchmark segment. For these reasons, in the following analysis we shall focus on those mortgage-backed programmes that were established in EUR benchmark jurisdictions. In this context, it should be taken into account that the programmes considered do not necessarily have to have issued EUR benchmarks. Rather, limiting our analysis to the Moody's covered bond universe as a whole should serve to improve data comparability from an investor's perspective.

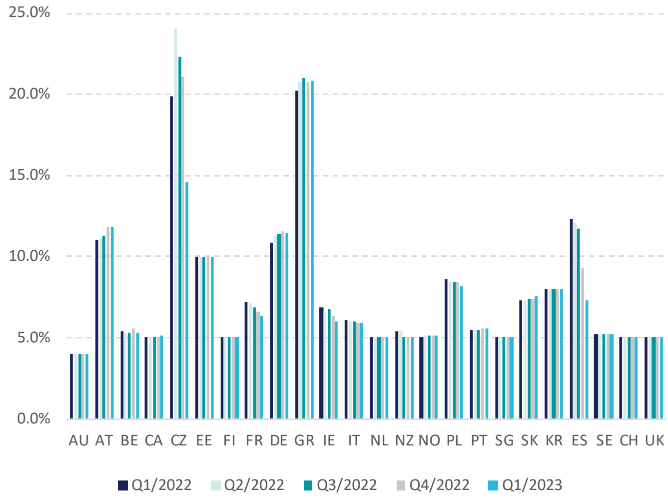
Mortgage programmes are predominantly residential

Looking at the classification of cover assets in the individual programmes carried out by Moody's, it can be ascertained that the deals are on average 83.1% covered by residential assets. In contrast, the shares of commercial assets are comparatively high in Germany (36.7%), Austria (31.6%), Czech Republic (12.2%) and Spain (10.1%). In comparison with the previous quarter, however, these shares have declined across the board. At the same time, Germany (15.2%) and Austria (10.7%), in addition to Sweden (10.1%) and Switzerland (9.8%), boast significant shares of multi-family assets. With the exception of the aforementioned countries, in addition to France (86.4%) and Norway (84.8%), the programmes in the remaining 21 jurisdictions feature shares of residential assets of between 92.7% and 100% in the cover pools. In France, residential assets are supplemented by both public sector mortgage-backed cover assets (4.8%) and the segment "Other" (8.6%). Neither of the two Luxembourg-based programmes feature mortgage assets; instead, the underlying cover pools contain public sector assets.

Collateral score by country (mortgages; Q1 2023)



Collateral score by country (mortgages; Q1 2022-Q1 2023)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

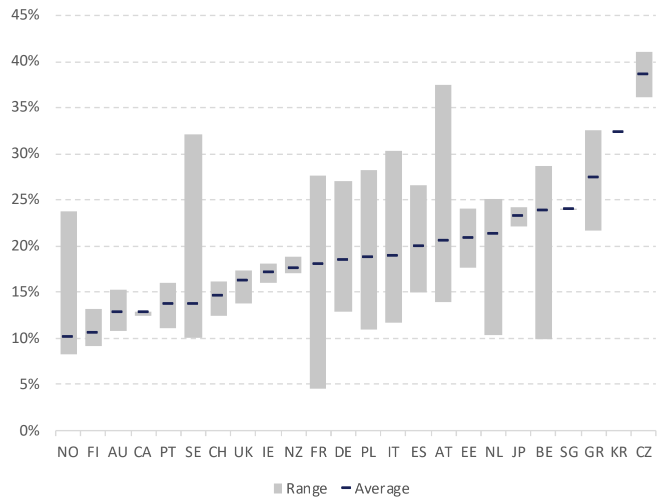
Collateral score as an indicator of cover pool quality

The collateral score is one of the most important metrics in the rating methodology of the Moody's covered bond universe. The rating agency applies this metric to assess the quality of cover assets, with a lower value indicating a high quality of assets in the cover pool. The collateral score measures the deterioration in credit quality of cover assets in connection with the theoretical highest possible rating in the respective jurisdiction. In principle, we consider it appropriate to compare collateral scores across both programmes and jurisdictions. Nevertheless, some specific features must be taken into account. For example, Moody's provides for a lower limit of the collateral score of 5% for the majority of mortgage programmes. Collateral scores fall as low as 4.2% in Australia, while in Japan they are set at 0% due to the RMBS structure of the respective programmes. The above chart shows not only the average collateral score at national level in each case, but also the possible range of scores. In total, five jurisdictions exclusively feature scores of 5% (Netherlands, UK, Switzerland, Singapore and Finland). The degree of variation in this regard is also very low in New Zealand (maximum: 5.1%) and Canada (maximum: 5.6%). Germany (11.9%), Austria (12.3%) and Greece (20.1%) have the highest average collateral scores, while at the same time Germany and Austria feature the widest ranges (24.5 and 17.1 percentage points respectively). As outlined above, these two jurisdictions have a comparatively high share of commercial assets in the cover pool. As a result, a high proportion of commercial cover assets can evidently be associated with a lower quality of cover pool or higher collateral score. Over time, the weighted average collateral score has been stable and trending sideways in many jurisdictions since the first quarter of 2022. Specific trends can be identified in certain countries. For example, the collateral score in Spain and the Czech Republic has improved by falling more than 5 percentage points, while downward trends can also be observed for France, Ireland and Poland over the past four quarters. In contrast, upward trends have been seen across the same time frame in Austria, Germany, Greece and Slovakia, which for the collateral score indicates a deterioration in the quality of the cover pools.

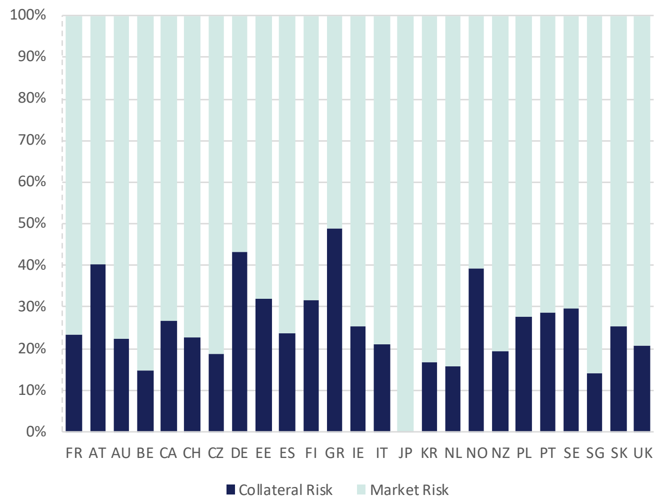
Cover pool losses: an indicator for expected losses in the cover pool

Moody's rating experts use the cover pool losses (CPL) to reflect the losses expected in the cover pool in the event of an issuer default (covered bond anchor event). This risk comprises two components: market risk (cover pool losses as a result of refinancing, interest and currency risks) and collateral risk (cover pool losses resulting from a deterioration in credit quality in the cover pool). Similarly to the collateral score, a high degree of heterogeneity can be identified in a global CPL comparison. This is reflected not only in the average CPL, but also with regard to the range of national variation. For example, the cover pool losses in Norway, Finland, Canada and Australia are particularly low, while in Czech Republic this metric is on the high side. However, the range is low for programmes from Canada, New Zealand and Singapore, although this is partly attributable to the fact that there are only a few programmes in these jurisdictions.

Cover pool losses by country (mortgage programmes)



CPL market and collateral risk components by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

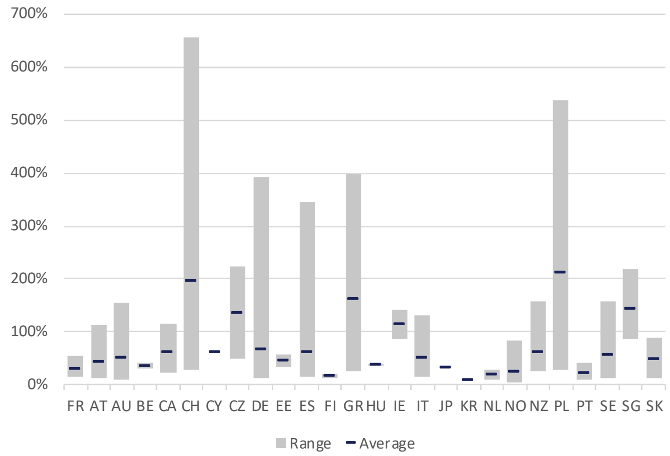
Refinancing, interest and currency risks determine the expected losses

The above chart on the right-hand side shows that there is considerable variation at national level between the two components (collateral risk and market risk). The share of collateral risk in the cover pool losses is relatively high in Greece, Germany and Austria. On account of a declining quality in the cover pool in the event of issuer insolvency, the degree of cover pool losses is comparably low in Belgium, Japan and Singapore. Once again, the two Japanese programmes have a special status here, as there is no collateral risk on account of their cover pool structures (cover assets are exclusively RMBS transactions). On the whole, it can be ascertained that the cover pool losses are to a greater extent impacted by the market risk component, so that losses in the event of issuer insolvency are attributed more to the categories of refinancing, interest and currency risk and less to the quality of cover assets.

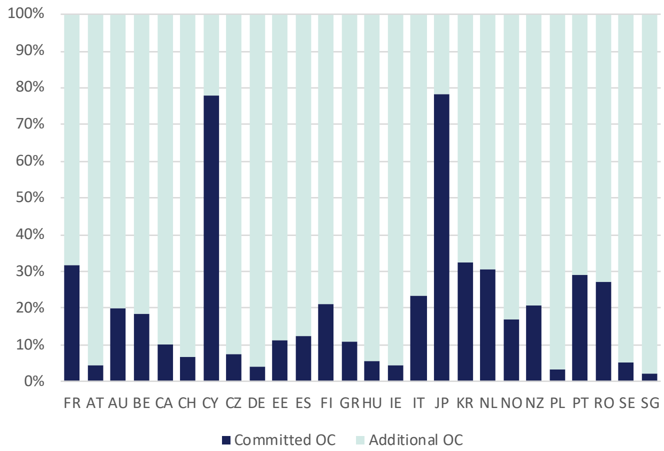
OC ranges remain varied

It should hardly come as a surprise to learn that an international comparison of the levels of overcollateralisation (OC) of the programmes rated by Moody's reveals marked differences. High average OC ratios can be seen in the comparatively small covered bond jurisdictions of Poland, Switzerland, Greece and Singapore. At the same time, wide ranges can be seen in Switzerland, Poland and Greece, in addition to Germany as well. Narrower ranges are often due to a smaller number of issuers in the jurisdiction in question.

OC level by country (mortgage programmes)



Composition of OC (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

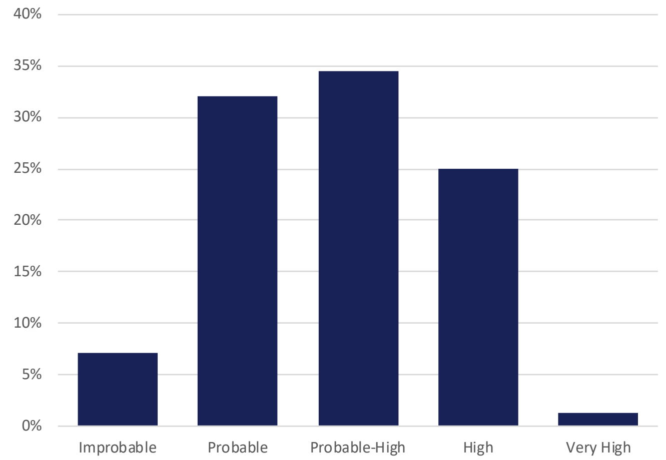
Committed OC as starting point for voluntary overcollateralisation

Overcollateralisation can also be divided into subcomponents. It might have been committed to the rating agency to ensure a certain rating or as a legal requirement. Committed OC can therefore be seen as a kind of lower threshold, meaning that overcollateralisation should not readily or must even under no circumstances fall below this level. In contrast, actual overcollateralisation might just be a temporary status, which is potentially subject to certain volatilities through new issuances or maturities. In our opinion, at the moment this effect may be temporarily amplified by issuers replacing their retained deals on maturity or via premature redemptions (due, among other aspects, to early TLTRO III repayments) with a lower volume of publicly placed bonds, albeit with the underlying cover assets left in the cover pool. Looking at the proportion of committed OC in the OC levels, it is clear that the overcollateralisation in Austria, Germany, Ireland, Poland and Singapore, for example, is largely provided on a voluntary basis and could accordingly be reduced comparatively easily. This is also due to low requirements for committed OC, which averages 1.8% in Austria, for example. In Germany and Singapore, the equivalent values are 2.6% and 3.0% respectively. By and large, it must be noted that the greater proportion of OC is provided by issuers on a voluntary basis, which can, however, certainly be attributed to a low level of committed OC. It is also true that a high proportion of committed OC does not automatically mean a high level of overcollateralisation in general.

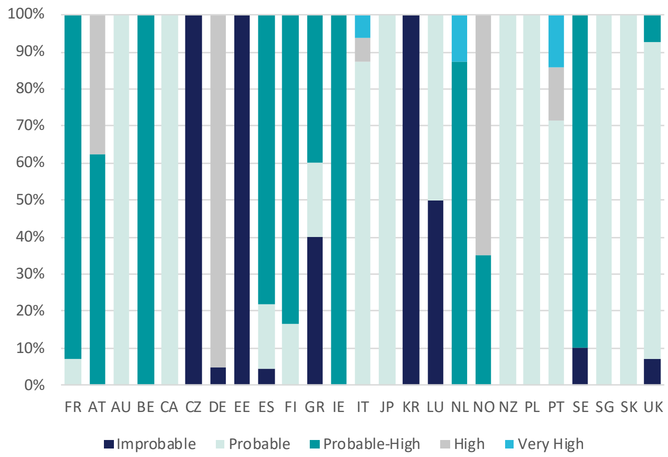
TPI links covered bond rating to the issuer rating

The TPI framework limits the potential covered bond rating to a certain number of notches above the issuer rating. Another metric provided by Moody's in this context is the timely payment indicator (TPI), which indicates how probable it is that payment obligations will be met in a timely manner following an issuer default and differentiates between six notches from "very high" to "very improbable" (see table below on the left). In each case, over 30% of all the mortgage programmes rated by Moody's have a TPI of "probable" or "probable-high". In contrast, the margins are less heavily represented with shares of 7.1% (improbable) and 1.3% (very high) respectively. In twelve EUR benchmark jurisdictions overall, the programmes are awarded the same TPI score in each case (see chart below right). Italy, the Netherlands and Portugal each have a single programme with a TPI score of "Very High". In Germany (38 out of 40 programmes) and Norway (11 out of 17), the majority of programmes are allocated to the category "High".

Timely Payment Indicator (TPI) (mortgage programmes)



TPIs by country (mortgage programmes)

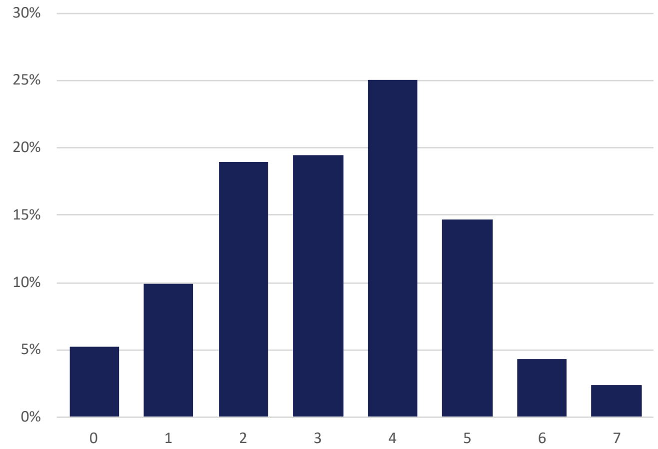


Source: Moody's, NORD/LB Markets Strategy & Floor Research

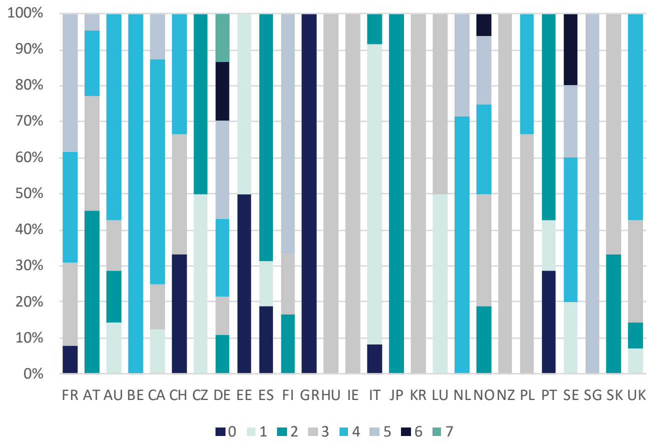
Sufficient buffer with regard to downgrades

In addition to the TPI, Moody's also refers to the TPI leeway, which indicates the number of notches by which the covered bond anchor point can be downgraded without this entailing a downgrade for the covered bond programme, as laid down in the TPI framework. Accordingly, 11 (5.2%) of the covered bond programmes rated by Moody's do not have a buffer of this kind. This means that in the event of the covered bond anchor being downgraded, the programme would be downgraded directly. A TPI leeway of four notches (53 programmes; 25.1%) is the most common score. Overall, five programmes (2.4%) - all of which are located in Germany - have a buffer of seven notches, while six of the nine programmes in total with a TPI leeway score of six notches also come from Germany.

TPI leeways in notches (mortgage programmes)



TPI leeways in notches by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

Conclusion

Moody's quarterly data on the rating-specific characteristics of the cover pools for mortgage-backed and public-sector covered bonds still largely provides an unchanged, robust picture of the situation at present. Nevertheless, we should remember in this context that this data mostly refers to the third quarter of 2022 and could therefore potentially lack relevance to some degree. Despite everything, the data reveals that the credit quality of the cover pools remains high in the EUR benchmark segment in particular, while the rating outlooks (from other rating agencies as well as Moody's) point to a stable development for 2023 in the majority of cases. The expected macroeconomic outlooks, such as the expectation of declining house prices, are certainly factored in. It does, however, remain to be seen how the interest rate hikes implemented since the end of the third quarter of 2022 and the most recent developments on the banking markets impact cover pools in terms of any potential tightening of lending standards. We continue to anticipate that distortions on the property markets similar to those seen during the house price crisis of 2008/09 will not materialise and that the cover pools will offer a sufficiently protective safety net, even if the overall quality of the assets looks set to decline in comparison with 2021 and 2022.

SSA/Public Issuers
NGEU: Green Bond Dashboard

Authors: Dr Norman Rudschuck, CIIA // Jan-Phillipp Hensing

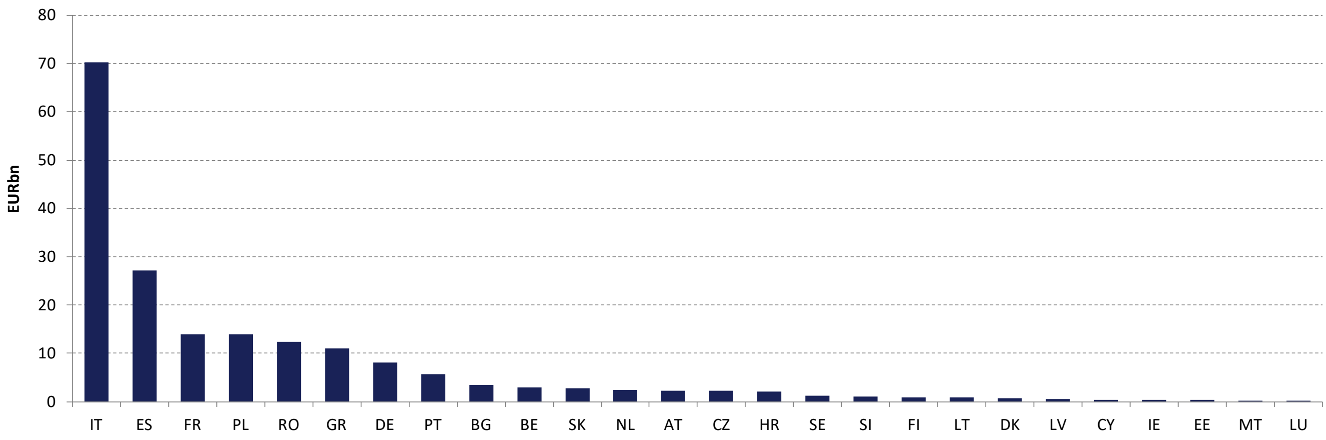
Introduction

Last year, the European Union published the NextGenerationEU Green Bond Dashboard, which aims to provide a transparent insight into the sustainable investments made to date and planned under the Recovery and Resilience Facility. So far, green bonds totalling close to EUR 36.5bn have been placed as part of the NextGenerationEU (NGEU) programme. The European Commission states that of the proceeds raised, a total of EUR 21.4bn has so far been used for investments by Member States. These figures might well look slightly disappointing, and not only at first glance: according to the previously reported expenses for Member States' approved recovery and resilience plans, a total of approximately EUR 187.4bn is eligible for the use of green bond proceeds by the end of 2026. Italy accounts for by far the largest share of these funds, at EUR 70.3bn, followed by Spain with less than half (EUR 27.2bn).

NGEU review

Let's start with a brief review: The NGEU programme was adopted as a stimulus package in the course of the Covid-19 pandemic in 2020. The programme is worth slightly in excess of EUR 800bn (at current prices). The aim of the package is to emerge stronger from the pandemic, to transform national economies and to create new opportunities as well as jobs. The Recovery and Resilience Facility is at the heart of the NGEU. It is responsible for the provision of loans (up to EUR 385.8bn, repayable by the respective member states) and grants (up to EUR 338bn). Supporting the EU budget are also new sources of revenue. These are divided into three pillars: Emissions trading, Carbon Border Adjustment Mechanism (CBAM) and residual profits of multinational companies. The remaining volume of EUR 83.1bn is to be used for key EU projects.

Eligible investments for NGEU green bonds by jurisdiction according to recovery and resilience plans



Source: EU, NORD/LB Markets Strategy & Floor Research

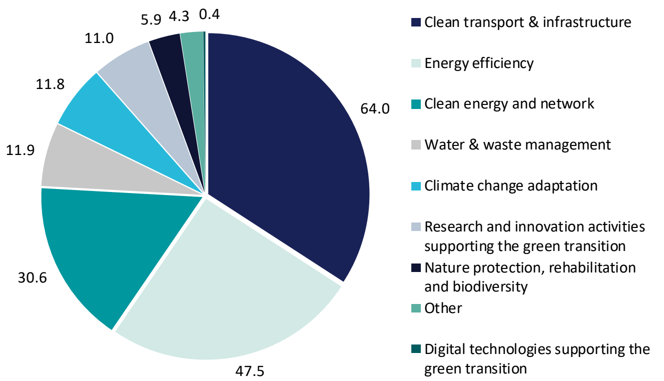
Recovery and Resilience Facility

The Recovery and Resilience Facility (RRF) is a temporary funding instrument launched in February 2021, which allows the European Commission to provide its Member States with financial resources that contribute to financing reforms and investments that are in line with the EU's priorities. In doing so, the facility pursues a dual aim: firstly, it helps the EU to achieve its target of climate neutrality by 2050 and, secondly, it sets Europe on the path to digital transformation and accelerates this process. To receive RRF funding, Member States must present their plans for investments and reforms that will both promote economic recovery and boost social resilience. States can receive funding up to a previously allocated amount. After we reported on 22 approved recovery and resilience plans (RRP) last year, the number has now increased to 27 and therefore covers all EU Member States. Attentive readers will note that only 26 countries are shown in the above chart. This is because Hungary's recovery plan has no green bond-eligible investments so far, which is why it is not included in the data. The RRP is subject to certain targets: 20% of the planned expenses are expected to contribute to digital transformation and 37% to protecting the climate. Cumulatively speaking, the approved RRPs even go beyond this: both the proportion of expenses for digital transformation and climate protection measures exceed the targets, at 26% and 40% respectively. The facility is based on six pillars in total:

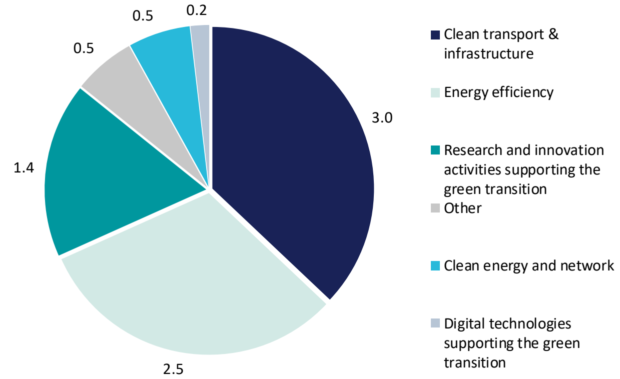
- Green transition
- Digital transformation
- Smart, sustainable and inclusive growth
- Social and territorial cohesion
- Health, and economic, social and institutional resilience
- Policies for next generation

The RRF is performance-based. This means that states will receive funding tranches upon achievement of agreed milestones and targets aimed at realising the reforms and investments in the plans. As soon as the European Commission has approved an RRP, the relevant loan agreements are concluded with the Member State. Once these are signed, states subsequently receive up to 13% of the amount upfront – within two months "where possible". The milestones defined in advance are subsequently assessed up to twice a year. If these have been achieved, the next tranche will be disbursed at the request of the respective Member State. Should the European Commission conclude that not all milestones and targets have been achieved to its satisfaction, it may make a partial disbursement. Subsequently, the state in question has six months to take the measures needed to achieve the target. Should this not take place within the defined time limit, the European Commission may reduce the total amount of financial support. However, there is the possibility that the Member State comes to the conclusion on the basis of objective criteria that the milestones and targets can no longer be achieved. In this case, it has the option of presenting an amended plan to the European Commission for approval.

Breakdown of green bond-eligible investments by category (EURbn)



Germany: green bond-eligible investments by RRP (EURbn)



Source: EU, NORD/LB Markets Strategy & Floor Research

German recovery and resilience plan

The plan submitted by Germany – and approved on 22 June 2021 – envisages grants of EUR 25.6bn. Of these, at least 42% is earmarked for climate protection and as much as 52% for digital transformation. Germany has therefore applied for less than Romania or Greece, for instance, and ranks only seventh in terms of the largest amounts - an aspect which we were critical of 2021. Germany's gross national product (GNP) is also forecasted to increase by between 0.4 and 0.7 percentage points by 2026 and up to 135,000 new jobs will be created on the labour market. Germany not only benefits from its own RRP: the anticipated economic upturn enjoyed by other Member States – thanks to the NGEU programme – will probably lead to an increase in exports and transfer effects. This alone will boost the GNP by an estimated 0.4 percentage points. In detail, as part of the country's green transformation, the plan earmarks EUR 3.3bn for decarbonising the economy - especially industry - with particular focus on developing an effective hydrogen economy. A total of EUR 5.4bn is earmarked for more sustainable transport, in particular, the electrification of cars and public transport. A total of EUR 2.5bn is also to be spent on a large-scale refurbishment programme to make residential properties more energy efficient. As far as digital transformation is concerned, EUR 1.5bn is to be put towards a Europe-wide initiative for microelectronics and communication technology, for example. In addition, EUR 750m is to be invested in another Europe-wide initiative for cloud infrastructures and services. The plan also provides for EUR 3bn to digitalise official processes in line with the Online Access Act (OZG). At this point, it would be sensible to turn our attention towards the funds eligible for green bonds: of the EUR 25.6bn in total, EUR 8.1bn can be financed via green bonds. The category clean transport and infrastructure accounts for the largest share here, at EUR 3.0bn (37%). Overall, EUR 2.5bn (31%) is attributable to energy efficiency, followed by research and innovation activities to support the green transition (EUR 1.4bn: 18%). In the categories clean energy and "other", EUR 0.5bn (6%) can be financed using green bonds in each case. A slight drawback here: Germany has received none of the proceeds of the green bonds issued to date. At the end of 2022, Germany also submitted a modified RRP, as some milestones were no longer achievable due to objective factors. This relates to a signal box of Deutsche Bahn as well as the funding of two German pharmaceutical companies that conducted research on Covid vaccines.

Green bond proceeds: largest investments in green transport and infrastructure

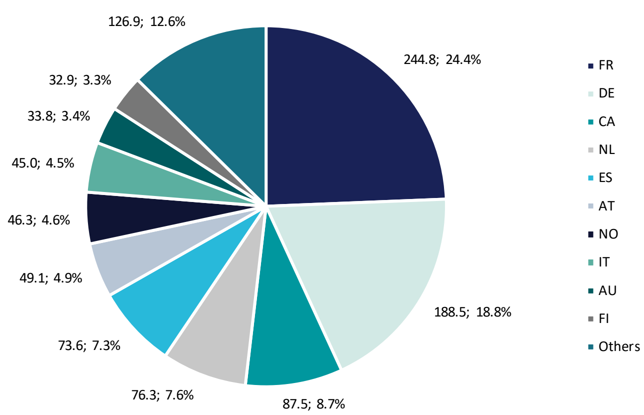
If we look at all the investments eligible for green bonds, clean transport and infrastructure is by far the most important sector: in total EUR 64.0bn of the eligible green bond investments of EUR 187.4bn fall within this category. The next largest area comprises energy efficiency at EUR 47.5bn, while investments totalling EUR 30.6bn are envisaged for clean energy, followed by EUR 11.9bn for water and wastewater management. The remaining amount of EUR 33.3bn is attributable to the – no less significant – other categories. Overall, a clear trend is apparent here. Europe would like to adopt greener and more sustainable practices, especially in terms of mobility. Unsurprisingly, one Member State is taking the lead here: of Italy's total investment eligible for green bonds of EUR 70.3bn, almost 40% (EUR 28.4bn) is planned for green transport and infrastructure.

Conclusion and outlook

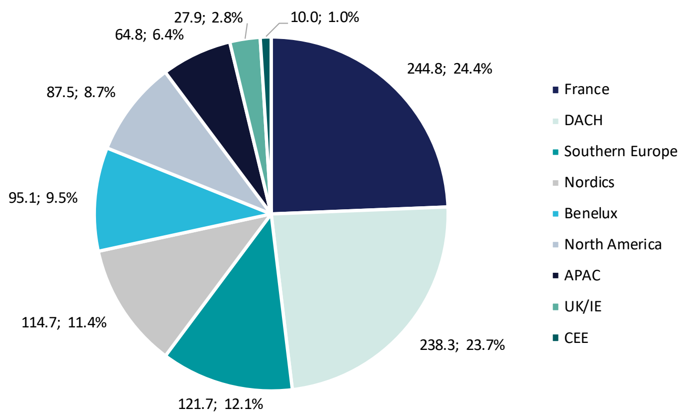
The fact that the NGEU programme amounting to over EUR 800bn will go down in the history books is indisputable. To put the size into perspective more clearly, it is greater than the size of the Marshall Plan of 1948 several times over. As was the case with the situation in post-war Europe back then, the focus is on rebuilding the economy (although we accept this is a slightly lame comparison!). While there might not be any cities in ruins in the Member States, the pandemic has of course left its mark on national economies in other respects. Logically, the EU is combining that which is necessary (economic recovery) with that which will be beneficial (climate protection and digital transformation). Achievement of the goals enshrined in the Paris Agreement will be a challenge of a supranational nature. The fact that the EU can direct investments to green and sustainable areas through the NGEU programme is all the more worthwhile. This aspect is also being adopted by Member States, which are even going beyond the prescribed investment targets in climate protection and digital transformation. However, we would have liked a larger amount of the recovery and resilience plan for Germany: our German readers will probably be aware of plenty of situations and locations where expansion of the digital infrastructure is needed, for example. We doubt whether the planned expenditure will achieve an adequate and, above all, modernised infrastructure. Nevertheless, we would like to commend the EU's transparency with regard to the use of proceeds, in particular. As an issuer of bonds (both conventional and green), this is the correct approach to ensuring they remain attractive to investors on the capital market in future.

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



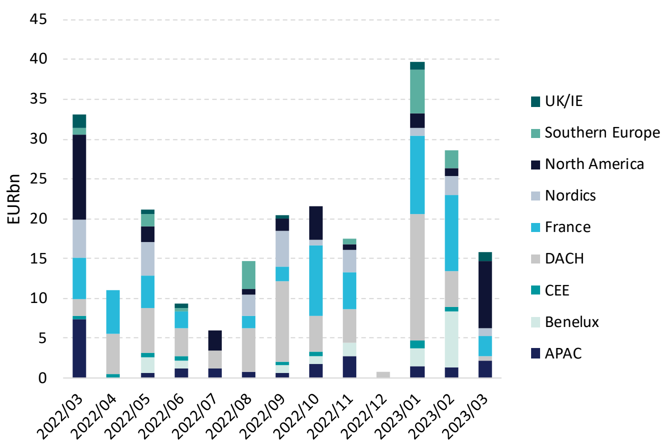
EUR benchmark volume by region (in EURbn)



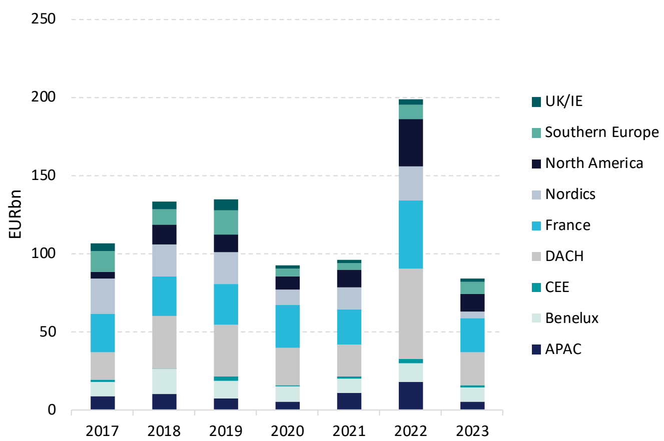
Top-10 jurisdictions

Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	244.8	236	16	0.96	9.6	5.3	1.12
2	DE	188.5	269	31	0.65	8.1	4.3	0.89
3	CA	87.5	65	0	1.32	5.5	2.9	0.83
4	NL	76.3	76	2	0.94	10.9	6.7	0.98
5	ES	73.6	59	6	1.14	11.1	3.7	1.93
6	AT	49.1	84	4	0.58	8.7	5.4	1.09
7	NO	46.3	55	11	0.84	7.3	3.8	0.51
8	IT	45.0	56	2	0.78	9.3	3.7	1.26
9	AU	33.8	33	0	1.02	7.4	3.8	1.26
10	FI	32.9	35	3	0.93	7.4	3.8	0.90

EUR benchmark issue volume by month

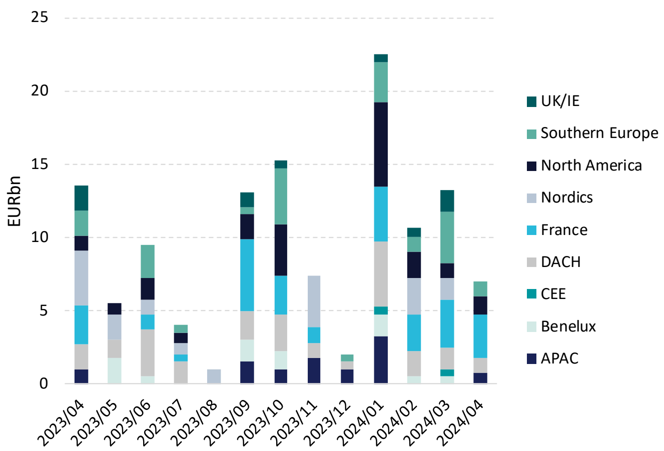


EUR benchmark issue volume by year

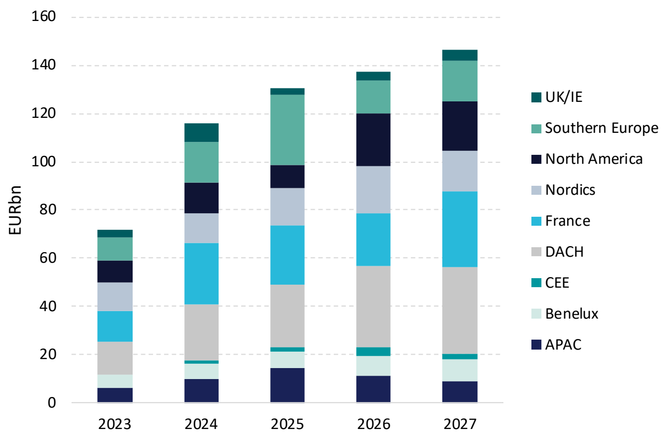


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

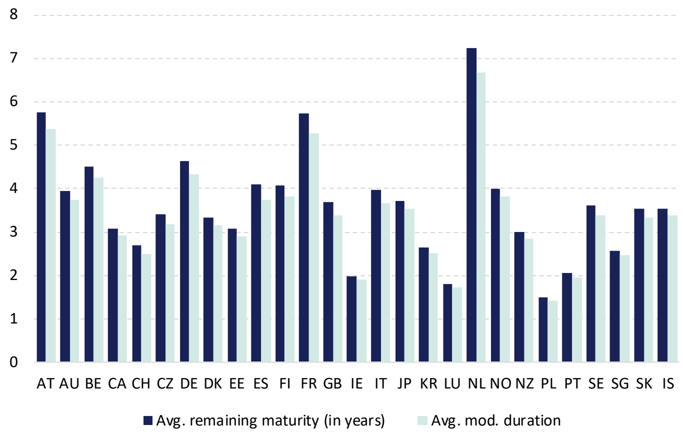
EUR benchmark maturities by month



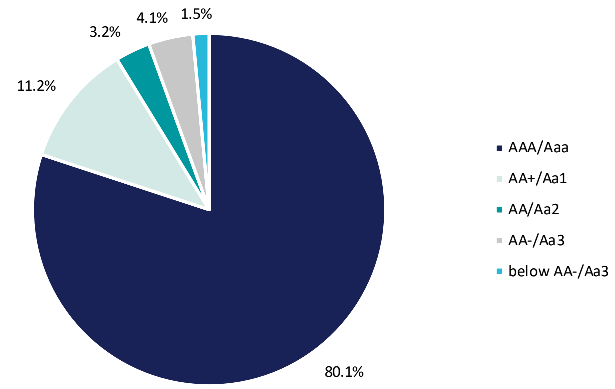
EUR benchmark maturities by year



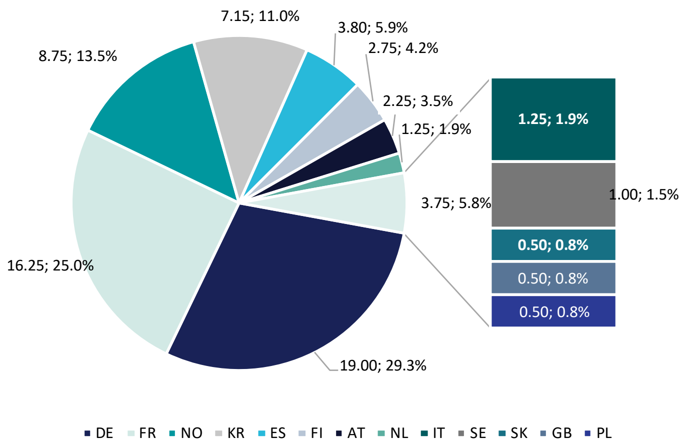
Modified duration and time to maturity by country



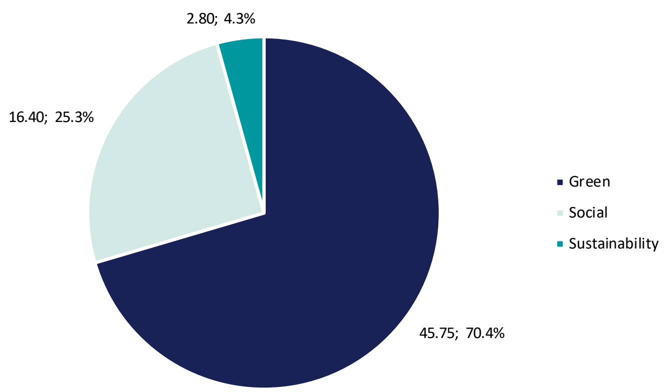
Rating distribution (volume weighted)



EUR benchmark volume (ESG) by country (in EURbn)

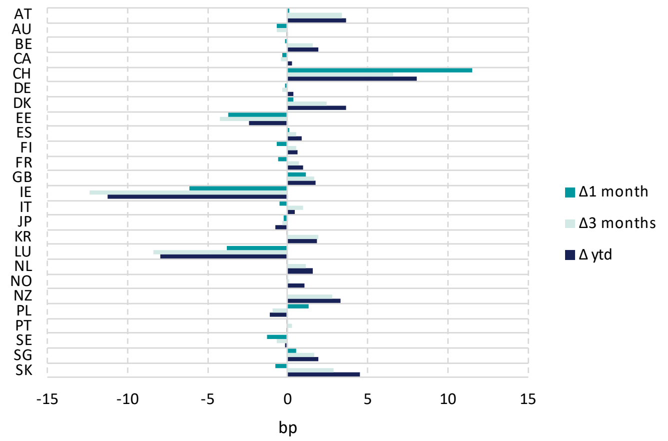


EUR benchmark volume (ESG) by type (in EURbn)

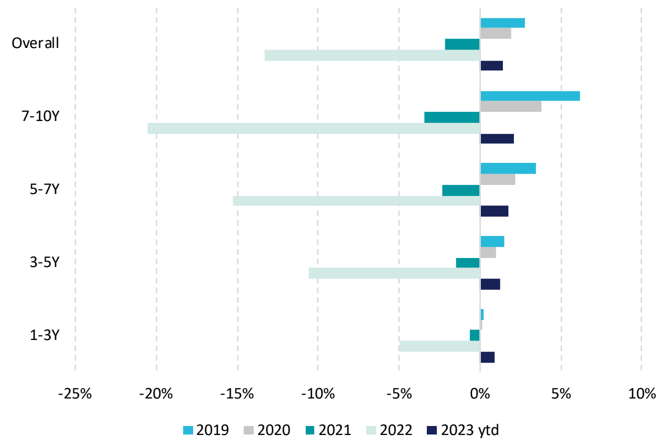


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

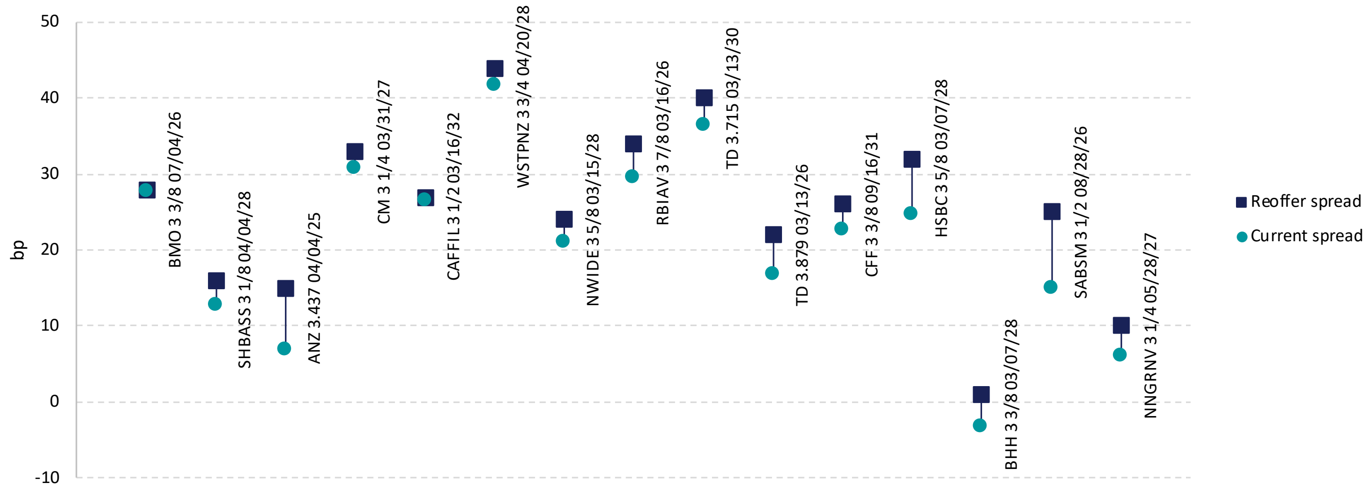
Spread development by country



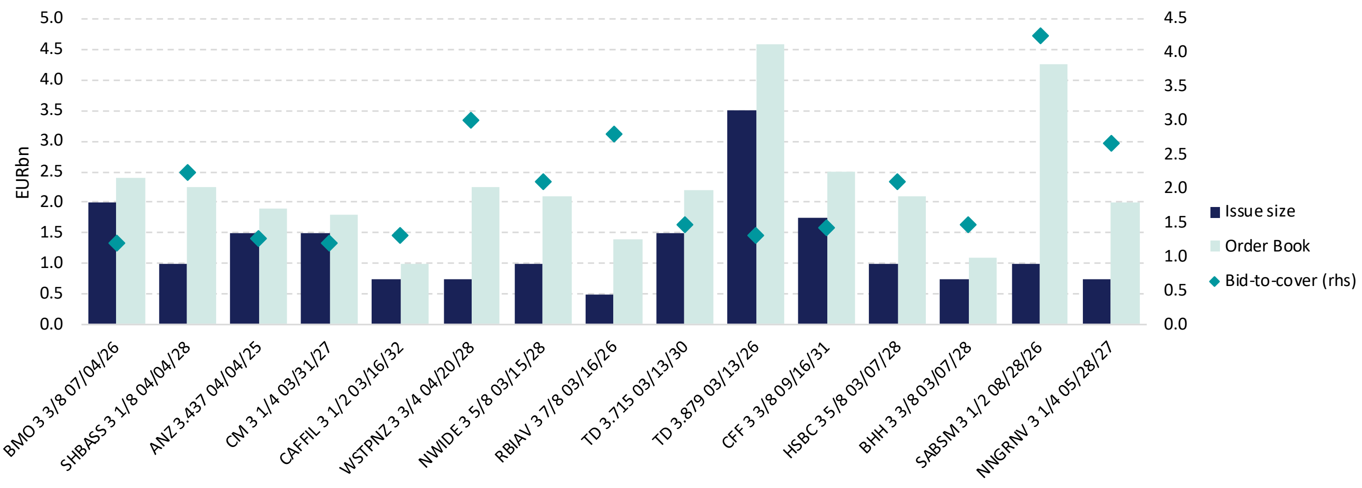
Covered bond performance (Total return)



Spread development (last 15 issues)



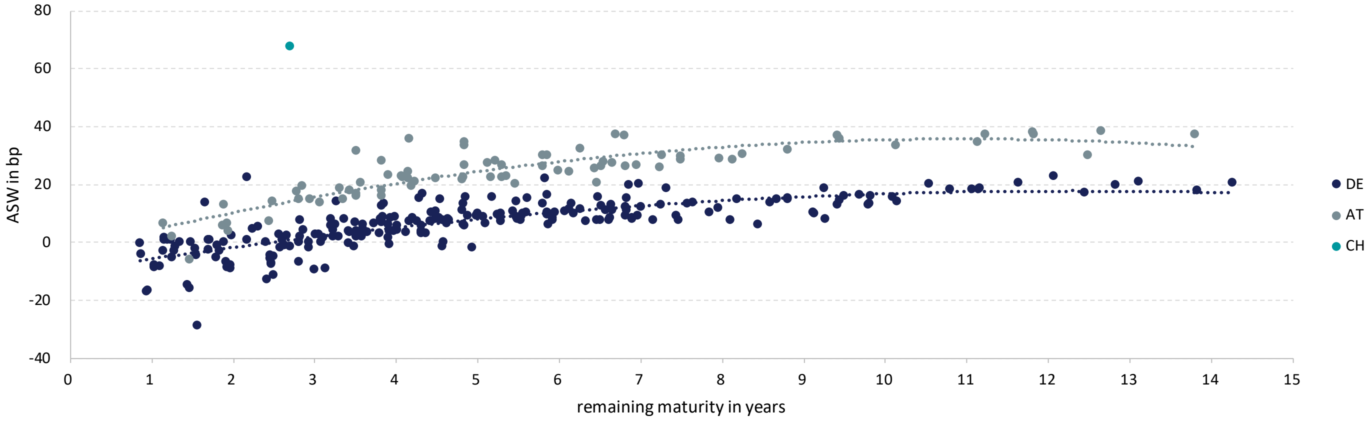
Order books (last 15 issues)



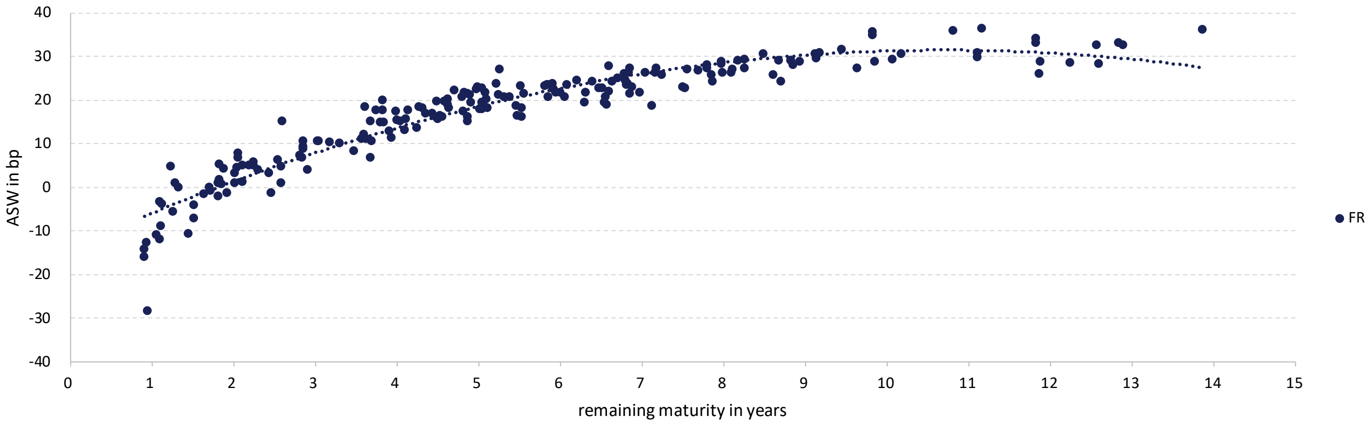
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

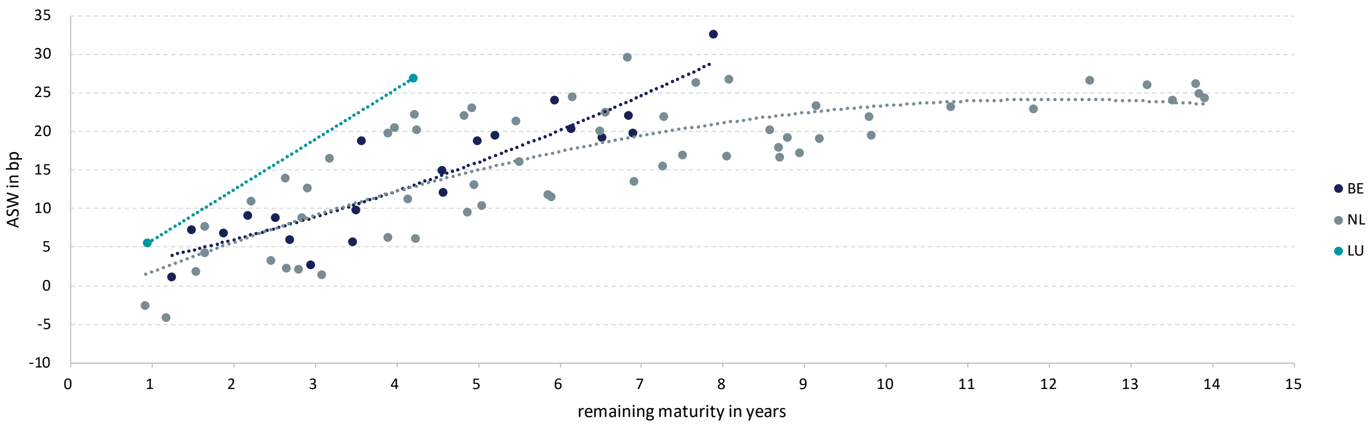
DACH



France

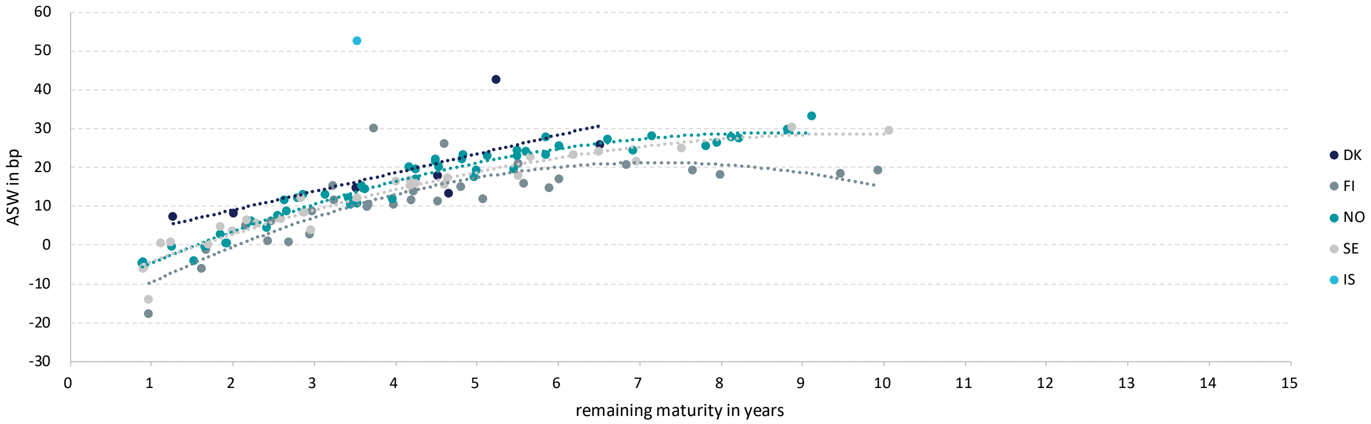


Benelux

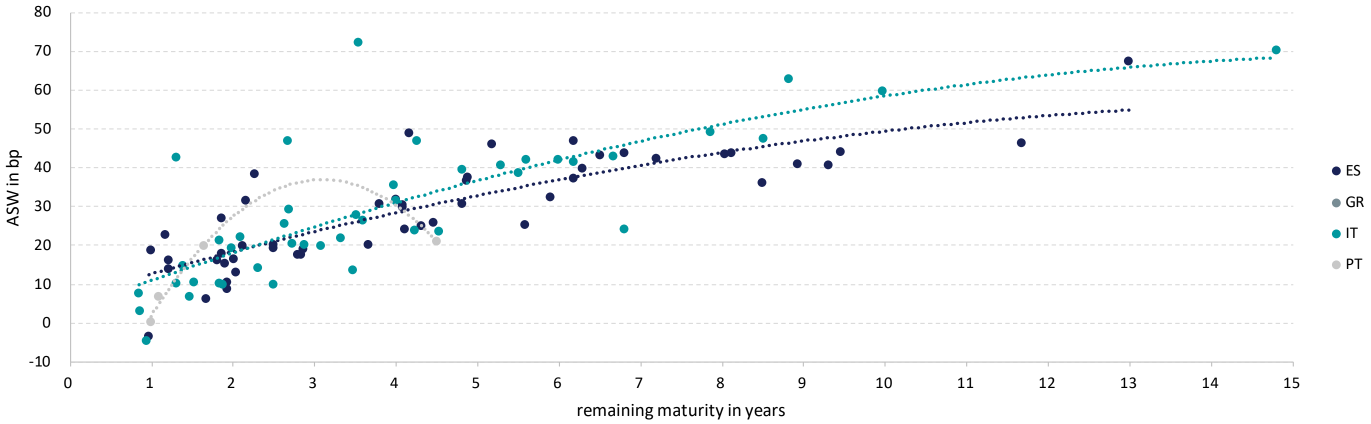


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

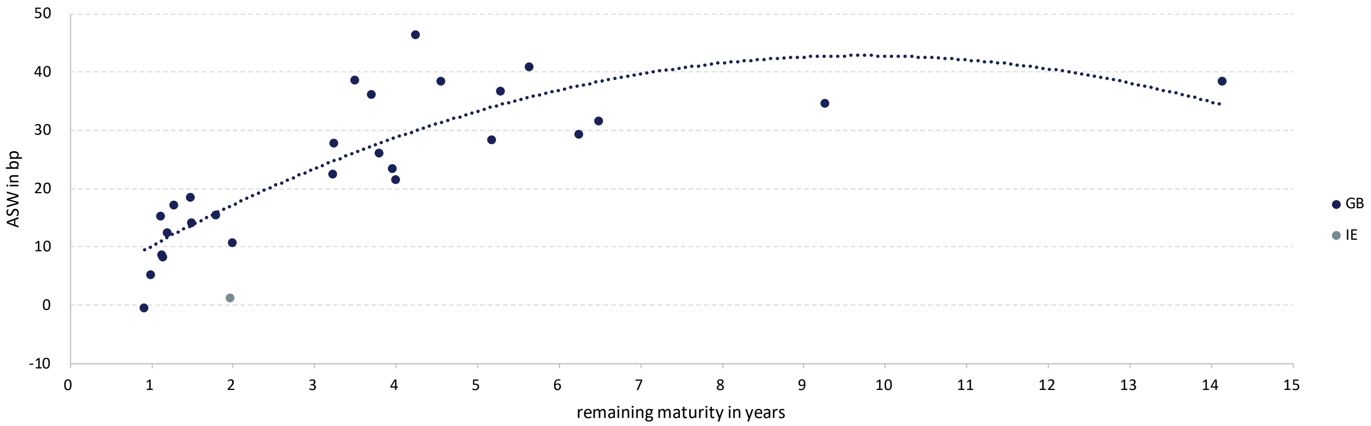
Nordics



Southern Europe



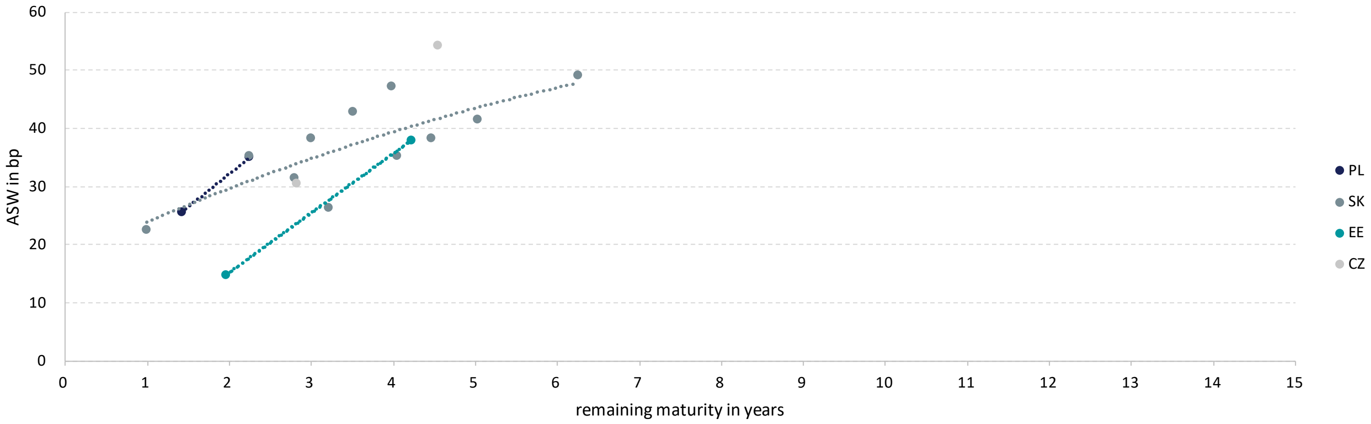
UK/IE



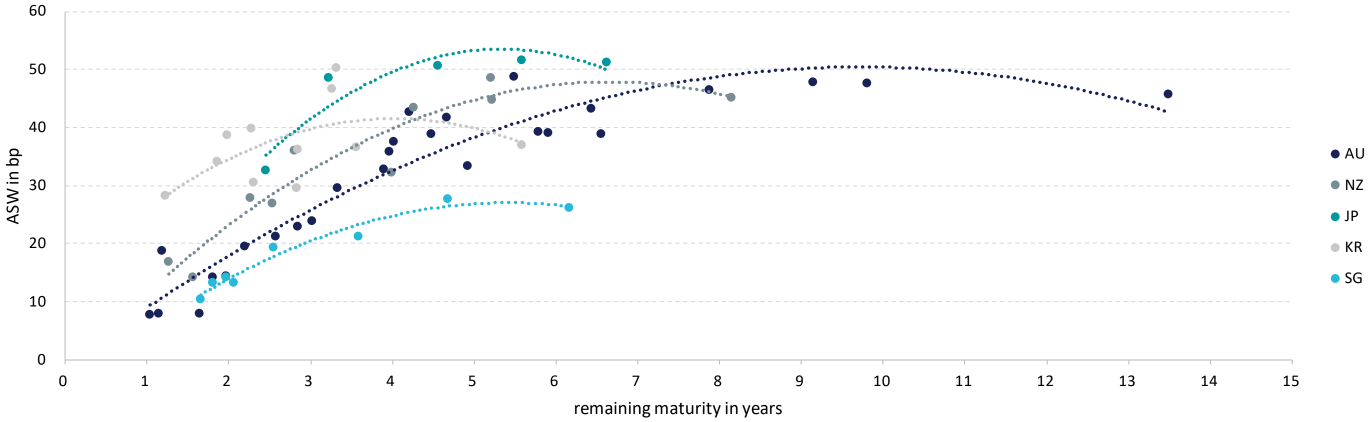
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

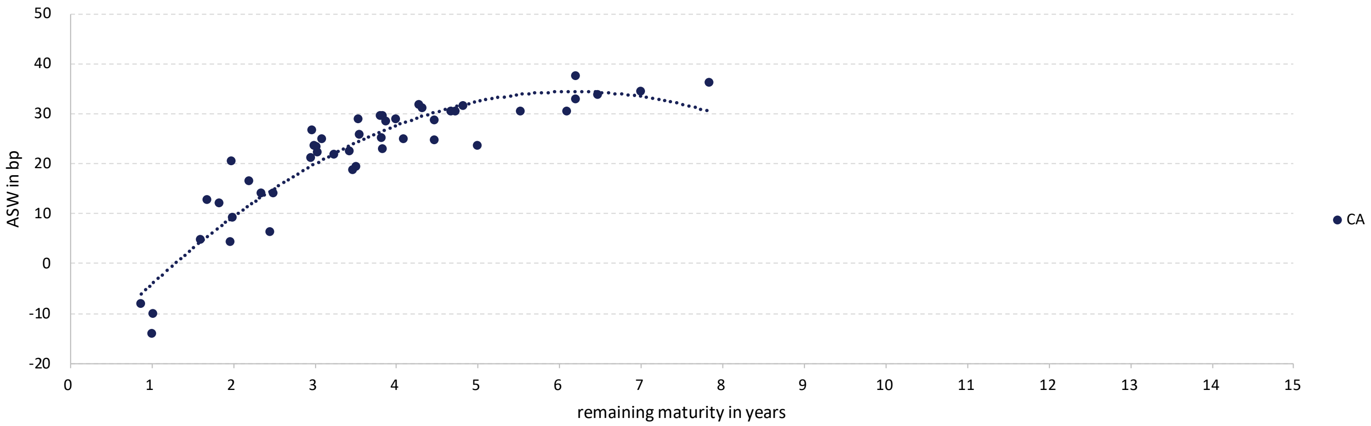
CEE



APAC



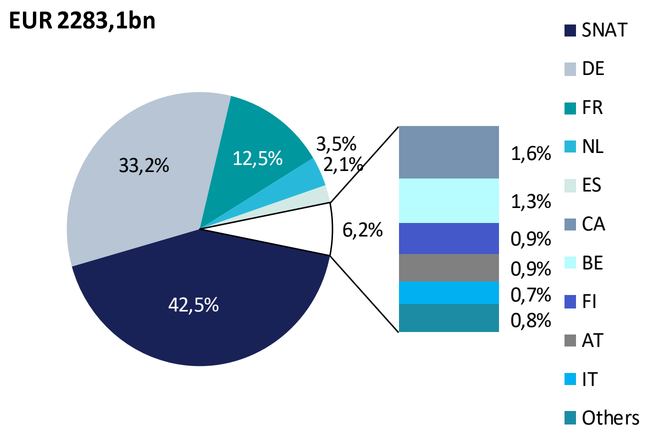
North America



Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
SSA/Public Issuers

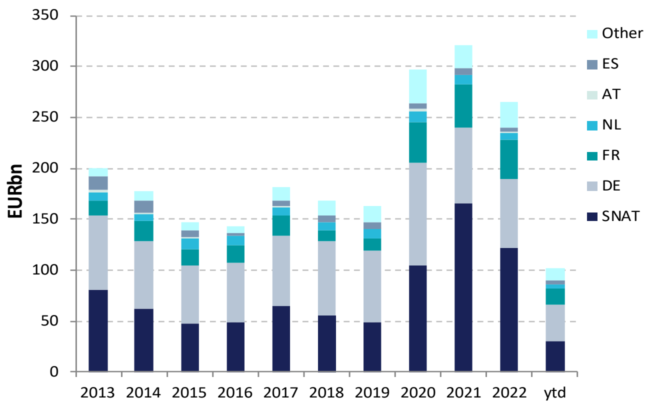
Outstanding volume (bmk)



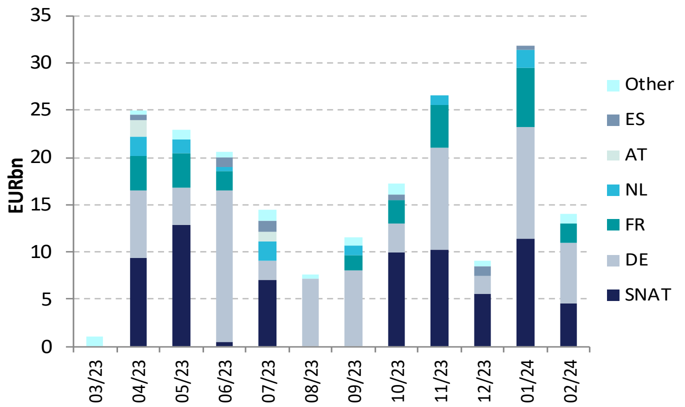
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	970,1	225	4,3	8,1
DE	757,9	564	1,3	6,4
FR	285,9	188	1,5	6,2
NL	79,7	70	1,1	6,4
ES	47,4	64	0,7	4,8
CA	36,6	25	1,5	4,6
BE	30,2	34	0,9	11,4
FI	21,4	24	0,9	5,1
AT	19,6	22	0,9	4,3
IT	15,5	20	0,8	4,7

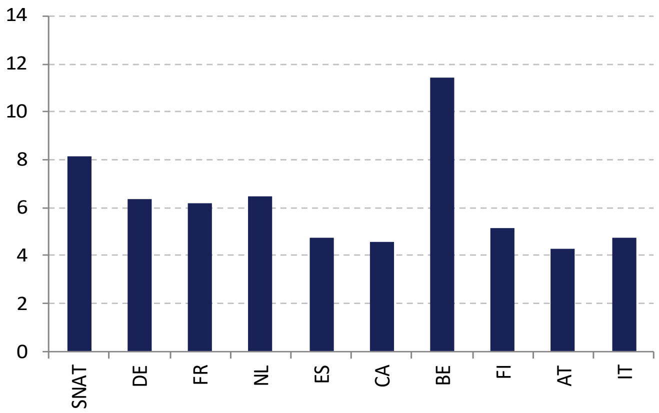
Issue volume by year (bmk)



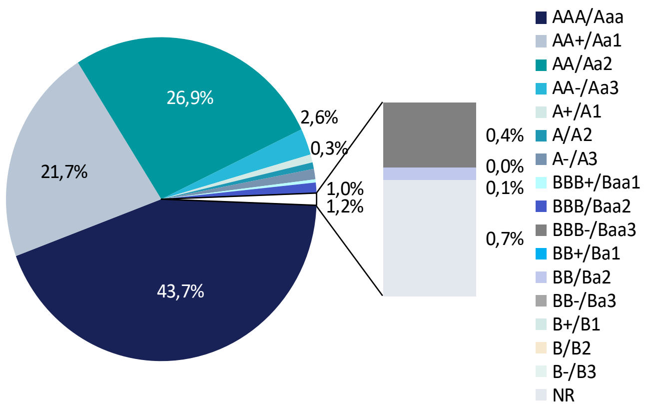
Maturities next 12 months (bmk)



Avg. mod. duration by country (vol. weighted)

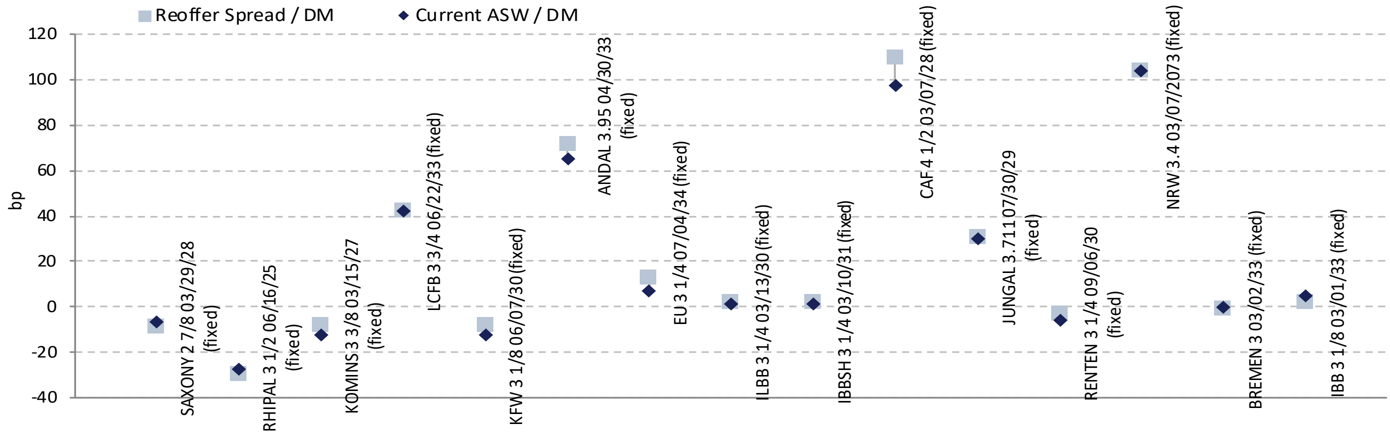


Rating distribution (vol. weighted)

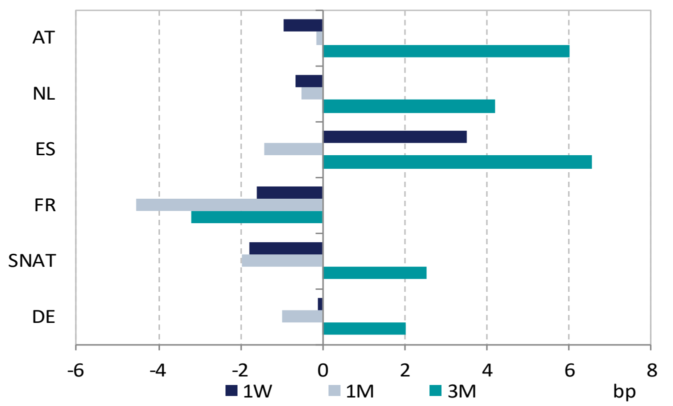


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

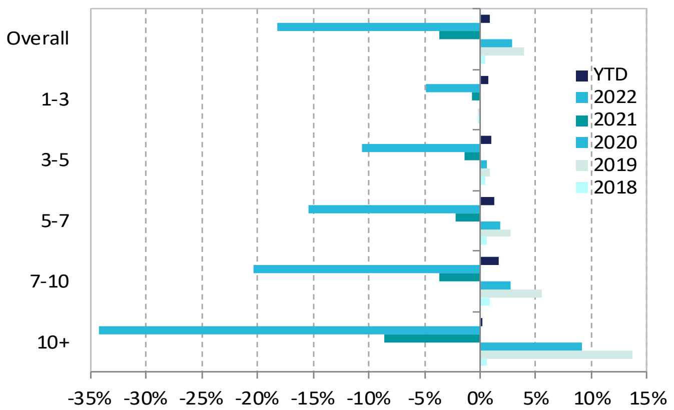
Spread development (last 15 issues)



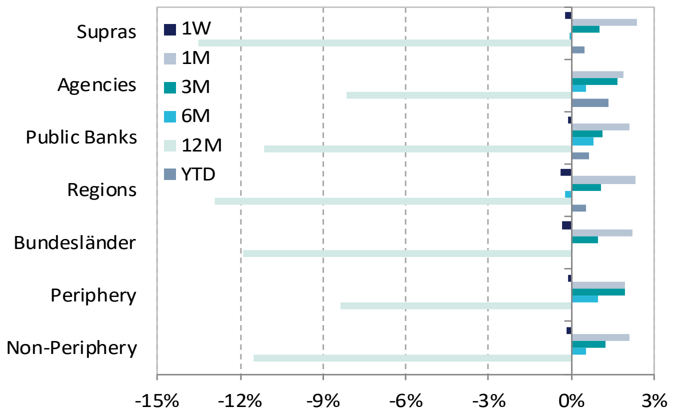
Spread development by country



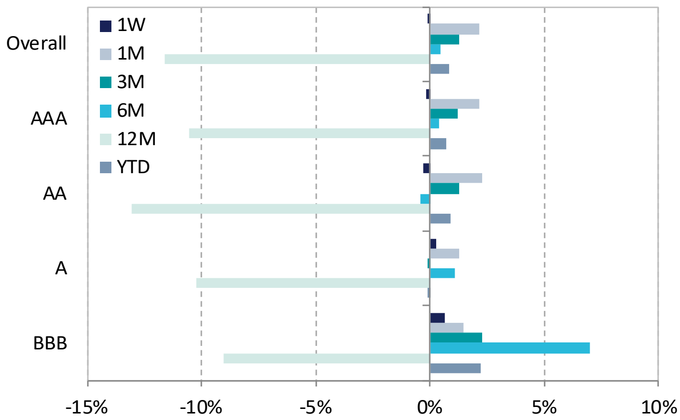
Performance (total return)



Performance (total return) by segments

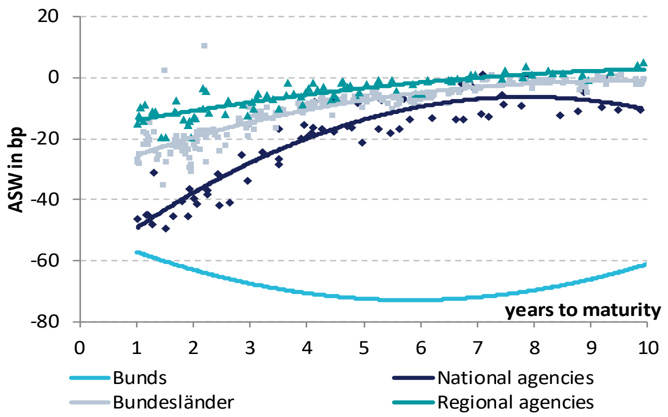


Performance (total return) by rating

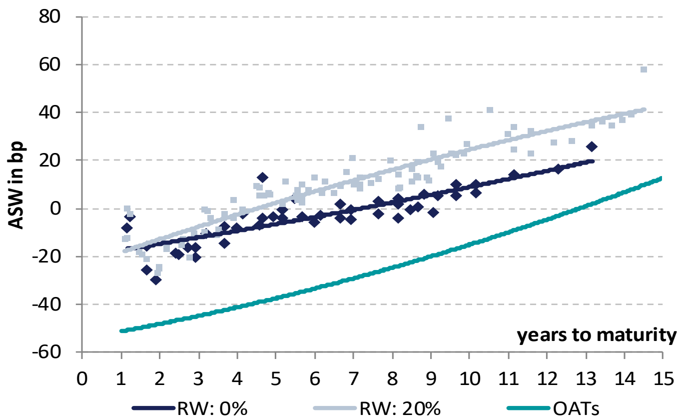


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

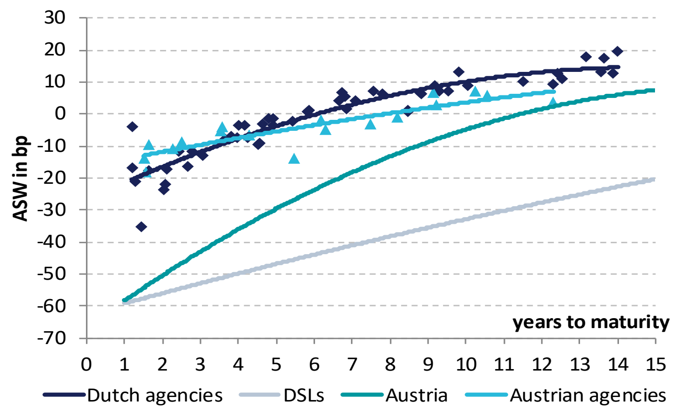
Germany (by segments)



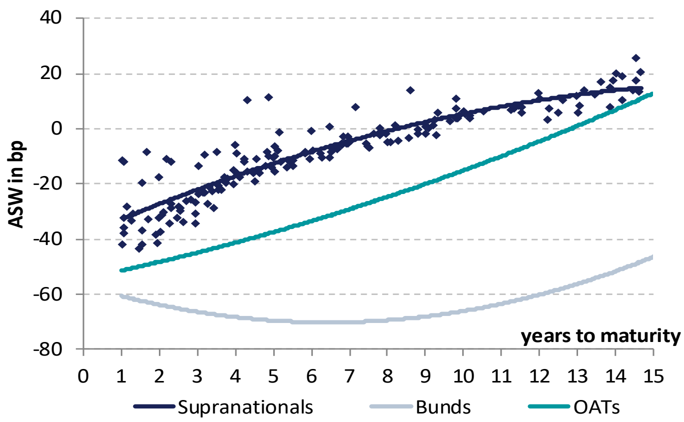
France (by risk weight)



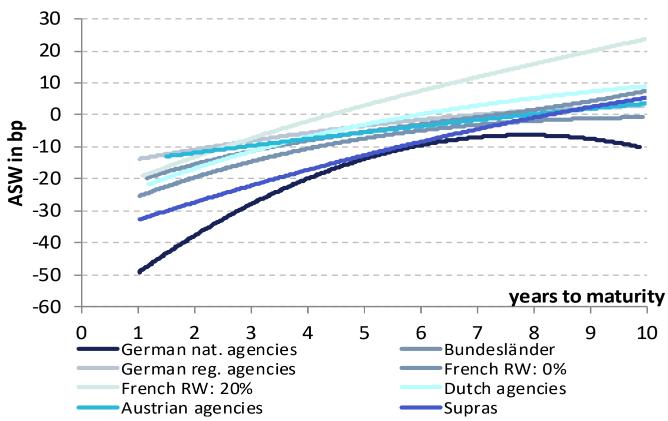
Netherlands & Austria



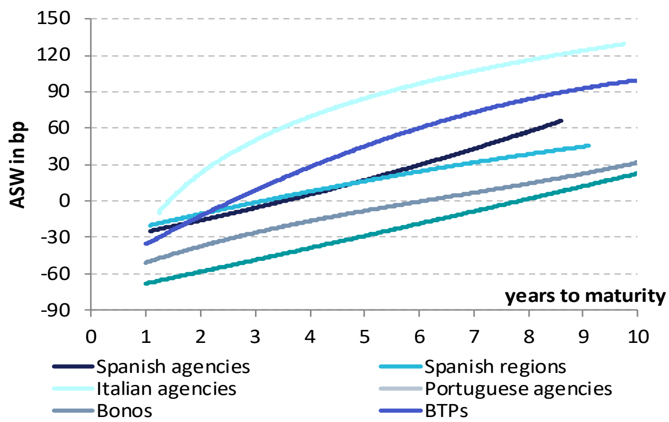
Supranationals



Core



Periphery



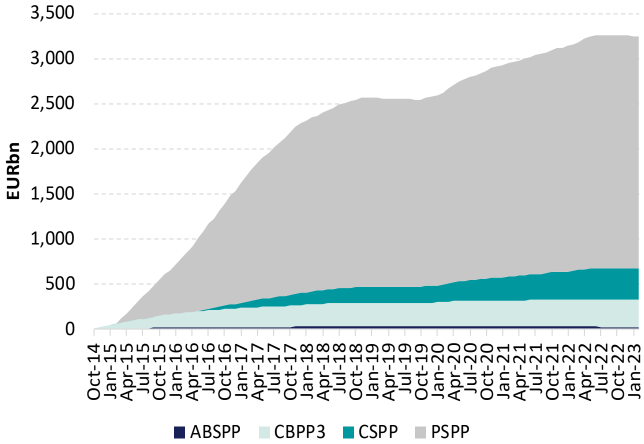
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

ECB tracker

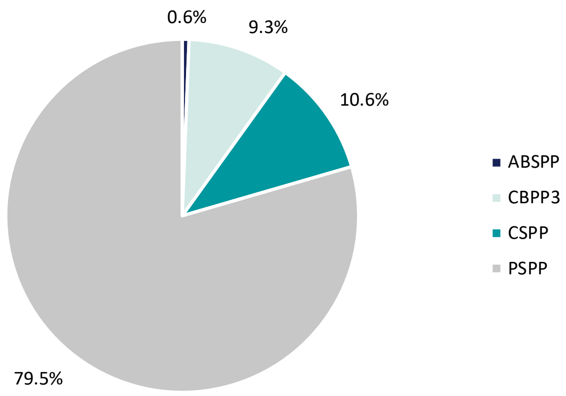
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Jan-23	20,829	303,269	344,010	2,584,798	3,252,906
Feb-23	20,191	302,677	344,102	2,584,935	3,251,905
Δ	-638	-592	+92	+137	-1,001

Portfolio development

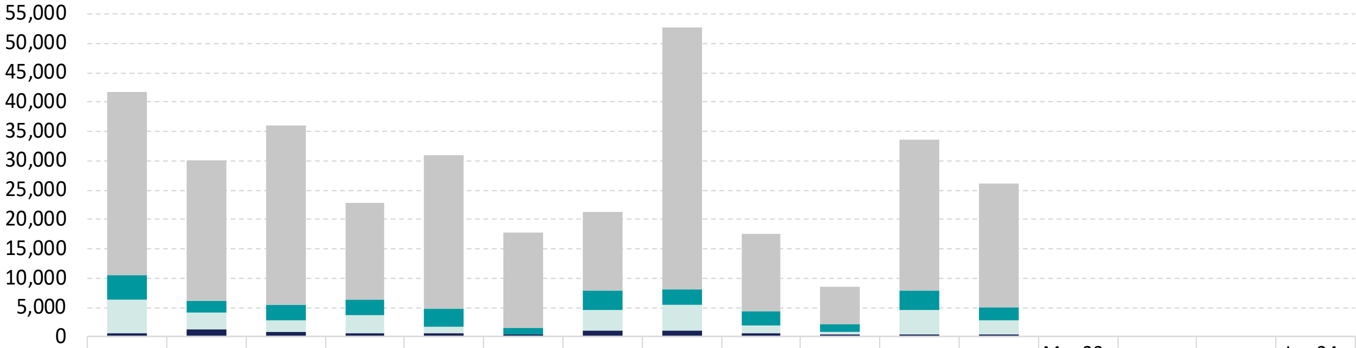


Portfolio structure



Source: ECB, NORD/LB Markets Strategy & Floor Research

Expected monthly redemptions (in EURm)

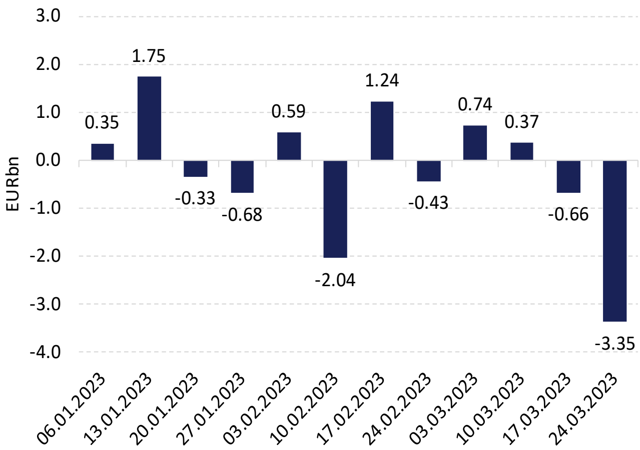


	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-23 - Feb-24	2022	2023	Jan-24 - Feb-24
APP	41,620	29,968	35,912	22,863	30,887	17,856	21,217	52,596	17,507	8,556	33,467	26,100	338,549	299,142	331,104	331,104
PSPP	31,061	23,858	30,558	16,619	26,130	16,445	13,351	44,559	13,255	6,336	25,524	21,013	268,709	228,585	255,266	255,266
CSPP	4,219	1,965	2,579	2,557	3,038	986	3,377	2,616	2,393	1,336	3,357	2,282	30,705	17,670	30,428	30,428
CBPP3	5,631	2,937	1,874	3,112	1,170	0	3,346	4,465	1,351	408	4,109	2,447	30,850	41,244	35,145	35,145
ABSPP	709	1,208	901	575	549	425	1,143	956	508	476	477	358	8,285	11,643	10,265	10,265

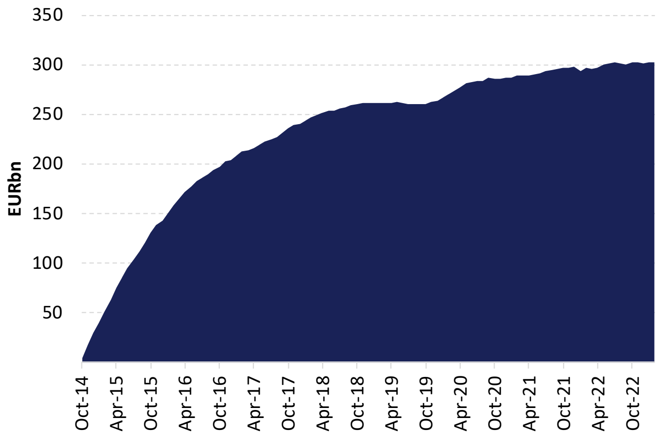
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

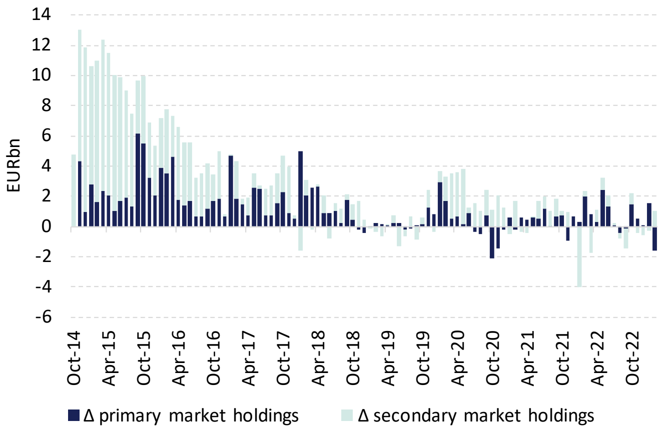
Weekly purchases



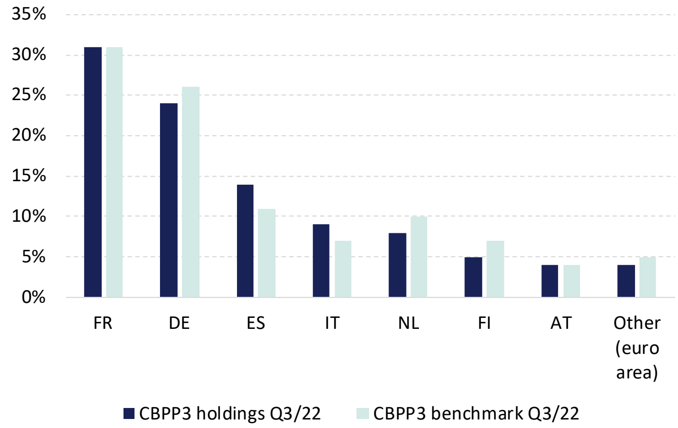
Development of CBPP3 volume



Change of primary and secondary market holdings

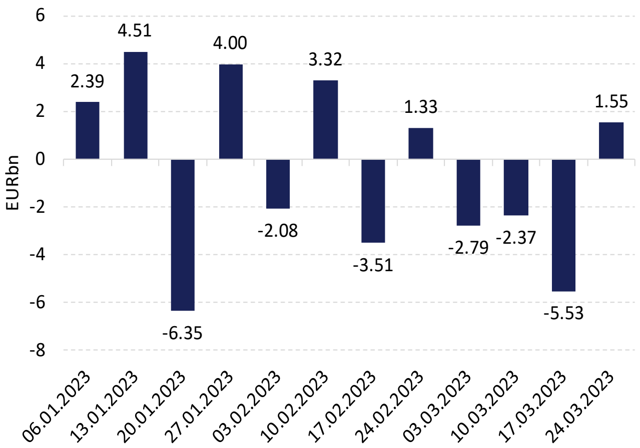


Distribution of CBPP3 by country of risk

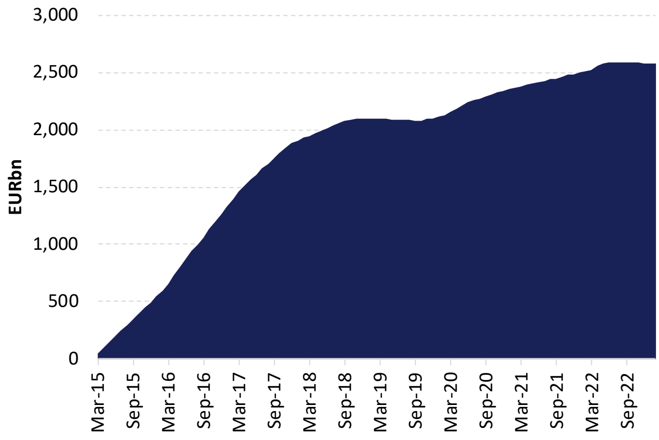


Public Sector Purchase Programme (PSPP)

Weekly purchases



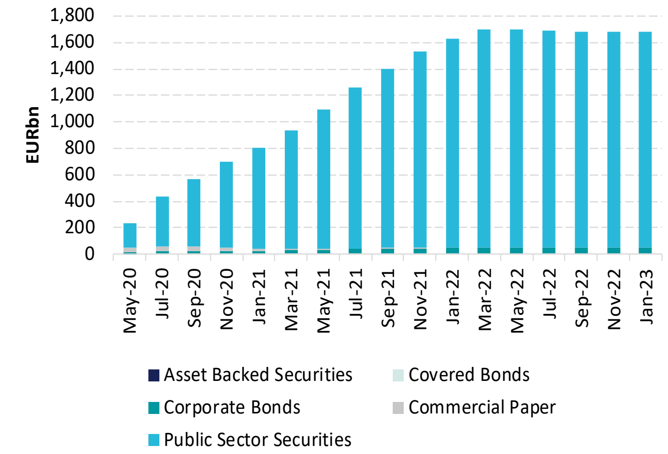
Development of PSPP volume



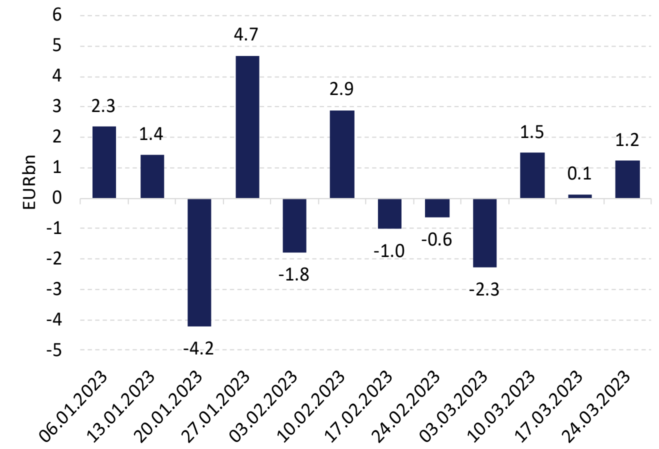
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Portfolio development



Weekly purchases



Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Δ Holdings previous period	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	Current WAM[3] (in years)	WAM of eligible universe[4] (in years)
AT	44,037	-671	2.6%	2.7%	0.0%	7.5	7.4
BE	55,795	-698	3.3%	3.4%	0.1%	6.3	9.3
CY	2,493	4	0.2%	0.2%	0.0%	8.3	8.1
DE	398,297	2,551	23.7%	24.0%	0.3%	6.7	6.9
EE	256	0	0.3%	0.0%	-0.2%	7.4	8.0
ES	193,376	-1,418	10.7%	11.6%	0.9%	7.4	7.3
FI	26,953	-173	1.7%	1.6%	0.0%	7.4	7.5
FR	301,844	14	18.4%	18.2%	-0.2%	7.6	7.8
GR	37,760	729	2.2%	2.3%	0.0%	8.5	9.4
IE	25,998	-503	1.5%	1.6%	0.0%	8.8	10.2
IT	287,658	-794	15.3%	17.3%	2.0%	7.2	6.9
LT	3,256	14	0.5%	0.2%	-0.3%	9.5	9.1
LU	1,922	19	0.3%	0.1%	-0.2%	5.9	6.5
LV	1,911	0	0.4%	0.1%	-0.2%	7.9	7.4
MT	607	1	0.1%	0.0%	-0.1%	10.4	8.6
NL	83,388	1,689	5.3%	5.0%	-0.3%	7.7	8.7
PT	33,909	-1,068	2.1%	2.0%	-0.1%	6.8	7.3
SI	6,627	19	0.4%	0.4%	0.0%	8.5	9.4
SK	8,031	0	1.0%	0.5%	-0.5%	8.1	8.2
SNAT	147,088	0	10.0%	8.9%	-1.1%	10.2	8.8
Total / Avg.	**1,661,205**	**-281**	**100.0%**	**100.0%**	**0.0%**	**7.5**	**7.6**

[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Current WAM of public sector securities holdings under the PEPP [4] WAM of eligible universe of public sector securities holdings under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
11/2023 ♦ 22 March	▪ Covered Bonds: Under the spell of the banking crisis and ECB hawks? ▪ ESG: EUR-benchmarks 2023 in the SSA segment (ytd)
10/2023 ♦ 15 March	▪ Transparency requirements §28 PfandBG Q4/2022 ▪ Credit authorisations of the German Laender for 2023
09/2023 ♦ 08 March	▪ ECB preview: Soft landing lets ECB play hard ball with key rates ▪ Where does the Pfandbrief stand within the covered bond universe?
08/2023 ♦ 01 March	▪ The covered bond market and the ECB: a gradual farewell? ▪ Beyond Bundeslaender: Focus on Greater Paris (IDF and VDP)
07/2023 ♦ 22 February	▪ The Italian market for EUR benchmark covered bonds ▪ European supranationals – an overview
06/2023 ♦ 15 February	▪ Maturity premiums on covered bonds ▪ Development of the German property market ▪ Spotlight on the EU: a mega issuer spawned by the crisis
05/2023 ♦ 08 February	▪ January 2023: record start to the new covered bond year ▪ SSA monthly review: dynamic issuance activity to kick off the new year
04/2023 ♦ 01 February	▪ Focus on covered bond jurisdictions: Canada in the spotlight ▪ Focus on covered bond jurisdictions: Slovakia and Czech Republic in the spotlight ▪ 26th meeting of the Stability Council (December 2022)
03/2023 ♦ 25 January	▪ ECB preview: all eyes and ears on the press conference ▪ Successful start to the year for EUR sub-benchmarks as well ▪ ESG covered bonds from France: La Banque Postale SFH issues inaugural social covered bond
02/2023 ♦ 18 January	▪ Focus on covered bond jurisdictions: Belgium in the spotlight ▪ The Moody's covered bond universe: an overview ▪ Beyond Bundeslaender: focus on Belgian issuers
01/2023 ♦ 11 January	▪ ECB review: 2022 entailed all manner of monetary policy action ▪ Covered Bonds Annual Review 2022 ▪ SSA: Annual review of 2022
39/2022 ♦ 14 December	▪ Our view of the covered bond market heading into 2023 ▪ SSA outlook 2023: ECB, NGEU and the debt brake in Germany
38/2022 ♦ 07 December	▪ ECB preview – next hike but total assets (finally) reduced?! ▪ Covered bond jurisdictions in the spotlight: a look at Spain
37/2022 ♦ 30 November	▪ Transparency requirements §28 PfandBG Q3 2022 ▪ ECB repo collateral rules and their implications for Supranationals & Agencies
36/2022 ♦ 23 November	▪ ESG covered bonds - another record year ▪ Current LCR classifications for our SSA coverage

NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

NORD/LB

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2022

Covered Bond Directive: Impact on risk weights and LCR levels

Risk weights and LCR levels of covered bonds (updated semi-annually)

Transparency requirements §28 PfandBG Q4/2022 (quarterly update)

Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

Issuer Guide – German Laender 2022

Issuer Guide – German Agencies 2022

Issuer Guide – Dutch Agencies 2022

Beyond Bundeslaender: Belgium

Beyond Bundeslaender: Greater Paris (IDF/VDP)

Spotlight on Spanish regions (Update planned in 2023)

Fixed Income Specials:

ESG-Update 2022

ECB interest rate decision: Backbone in times of turmoil?!

ECB interest rate decision: Roadmap to QT

ECB: The Wishing-Table, the Gold-Ass, and the Cudgel in the Sack

ECB interest rate decision: delivered as expected?

Appendix
Contacts at NORD/LB

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Sales Sparkassen & Regionalbanken	+49 511 9818-9400
Sales MM/FX	+49 511 9818-9460
Sales Europe	+352 452211-515

Trading

Covereds/SSA	+49 511 9818-8040
Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/Regionen	+49 511 9818-9550
Frequent Issuers	+49 511 9818-9640

Origination & Syndicate

Origination FI	+49 511 9818-6600
Origination Corporates	+49 511 361-2911

Sales Wholesale Customers

Firmenkunden	+49 511 361-4003
Asset Finance	+49 511 361-8150

Treasury

Collat. Management/Repos	+49 511 9818-9200
Liquidity Management	+49 511 9818-9620 +49 511 9818-9650

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