We are taking a break due to the German Unity Day holiday.
The next edition of the CSV will be published on **11 October 2023**

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

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Agenda

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Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

Primary market: we welcome a newcomer from Australia

As was the case in the previous week, activities on the primary market were again rather restrained over the past five trading days. In this context, just two issuers successfully placed EUR benchmarks since Wednesday of last week (20 September). In particular, we believe saturation effects among investors – due to limit utilisations, among other factors – are the cause for the current displays of caution on the primary market. It was therefore in this challenging market environment that KBC Bank NV (ticker: KBC) approached the market with the offer of a three-year bond on Thursday last week. The Belgian issuer successfully raised EUR 1.0bn at ms +15bp. The final order book amounted to over EUR 2.0bn, meaning that this deal was more than 2.0x oversubscribed. Initial guidance was in the area of ms +18bp, although this was reduced to ms +16bp area in the course of the marketing phase. This was the second time in four months that KBC Bank was able to successfully issue a covered bond, having previously placed a bond worth EUR 750m earlier this year. In general, we find that issuers from Belgium are presenting as dynamic market participants this year. To date in 2023, they have placed EUR 4.0bn spread across a total of five deals. In addition to KBC Bank from Belgium, just one other issuer was active on the market in the past five trading days. We are delighted to report that Bendigo and Adelaide Bank (ticker: BEN), another Australian bank, has expanded the group of active issuers in the EUR benchmark segment. On Tuesday, the issuer successfully approached investors to place a deal worth EUR 500m with a term to maturity of three years. During the marketing phase, the initial guidance in the area of +47bp did not tighten any further, while the book was slightly oversubscribed at EUR 795m. For more detailed information on Bendigo and Adelaide Bank, we would point interested readers in the direction of the previous edition of the Covered Bond & SSA View. We continue to expect the issuance volume for 2023 to come close to, albeit just short of, the EUR 200bn mark. In this context, some primary market activities will be exposed to a challenging environment. This will mainly be reflected in greater reluctance and greater price sensitivity on the part of potential investors. However, at this point we would like to mention that this should not be confused with a general, long-term weakness in the covered bond segment. In terms of determining a new balance with regard to the spread landscape, we are in more of a discovery phase at present. As a result, we now expect slightly more pronounced spread widening in the range of eight to ten basis points by the end of the year. In this context, Pfandbriefe could even widen somewhat more significantly than comparable covered bonds, e.g. those hailing from jurisdictions including France, Austria or the Nordics.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Bendigo and Adelaide	AU	26.09.	XS2680753568	3.0y	0.50bn	ms +47bp	AAA / Aaa / -	-
KBC Bank	BE	21.09.	BE0002967488	3.0y	1.00bn	ms +15bp	- / Aaa / -	-

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

Primary market II: quiet times in the EUR sub-benchmark segment?

The EUR sub-benchmark segment was essentially just as quiet as the market for EUR benchmarks last week, with just a single issuance to report here. The only bank to approach investors here was Banca Popolare dell'Alto Adige (ticker: BPOPAA) with a green sub-benchmark debut in the amount of EUR 250m. At EUR 825m, the order book for this 5y bond was significantly oversubscribed. Over the course of the marketing phase, the initial guidance ultimately tightened from ms +80bp area to ms +73bp. This was just the third green covered bond deal overall placed by an Italian issuer in either EUR benchmark or sub-benchmark format.

Covered Bond label: Mediobanca expands circle of issuers to 133 banks

After having reported on Bausparkasse Schwäbisch Hall joining the Covered Bond Label Foundation (CBLF) two weeks ago (cf. NORD/LB Covered Bond & SSA View dated 13 September), we learned of another new member bank in the form of Mediobanca. As such, the label now comprises 133 issuers from 24 jurisdictions. Luca Bertalot, ECBC Secretary General, welcomes the increasing presence of issuers in the Italian covered bond market and highlights the importance of covered bonds as an important long-term source of refinancing. In addition to Mediobanca, nine other Italian banks currently form part of the CBLF and report in accordance with the Harmonised Transparency Template (HTT) of the covered bond label on a quarterly basis. As at 30 June 2023, Mediobanca had outstanding covered bonds totalling EUR 5.25bn, with a cover pool volume of EUR 7.45bn, making the bank one of Italy's most important issuers. We expect Mediobanca to make an appearance on the primary market with a benchmark-sized OBG before the end of 2023.

Moody's: harmonisation project strengthens covered bonds

On the first anniversary of the application of the new rules for covered bonds, which admittedly has been and gone now, the risk experts at Moody's took the opportunity to draw a brief conclusion. In fact, we also share the rating agency's view that the systemic relevance of covered bonds has been strengthened by the new set of rules, which is due to the improvements in regulatory supervision, among other factors. From the perspective of the risk experts at Moody's, the fact that the expanded definition of high-quality assets offered by the directive has not been utilised to any significant degree has also helped here. Moody's also continues to identify differences in the required liquidity reserves and specific configuration of potentially deferred maturities. In addition, the rating agency has updated its own scoring system for the legislative frameworks at national level. In this context, Spain in particular has benefited from the adjustments made to its own legal framework.

Moody's comments on funding mix and liquidity of universal banks

Last week, the rating agency Moody's commented on the refinancing situation of 24 large universal banks that form part of the agency's rating universe. In the "Moody's Sector Report", the rating agency underlines that, from a global perspective, the credit quality of the institutions under consideration is supported by the composition of the funding mix and existing liquidity agreements. Generally speaking, universal banks tend to have a distinct and strong deposit franchise. Deposit-based refinancing is also further diversified through wholesale funding activities. At the same time, the banks have "a wealth of liquidity" and additional resources to call upon in the event of emerging stress scenarios. These factors help to compensate for the complexity of the interbank market and the comparatively high level of dependency on the capital market as a source of refinancing. At individual country level, the risk experts note that Canadian banks rely more on short-term funding, while banks from France and the Benelux countries tend, on average, to utilise longer terms to maturity. The dependency on covered bonds on the part of Nordic banks, for example, is significant, which does not really come as a surprise to us. After all, in these jurisdictions too, covered refinancing is a fundraising option that offers a comparatively high level of stability. According to Moody's, while liquidity positions are consistently robust, the risk experts also point out that the balance sheet figures tend to overstate the available resources. In this context, Moody's is referring to the additional liquidity that can be exchanged for cash by depositing securities with the central bank. Of the banks examined, Nordea relies most heavily on covered bonds, which account for a share of more than 20% in its wholesale funding. At the same time, Nordea boasts the highest ratio of HQLA to liquid bank assets (over 100%). For its part, NatWest has the highest NSFR at over 140%.

Moody's presents Covered Bond Sector Update Q3/2023

The covered bond team at Moody's presented its most recent "Sector Update" back in August. As part of the quarterly publication series, the risk experts address, among other aspects, the ways in which high mortgage interest rates are adversely impacting demand in the real estate market. In addition, the Energy Performance of Buildings Directive (EPBD) adopted by the European Parliament sees a potential deterioration in credit quality on the part of less energy-efficient properties or, as the case may be, in relation to those (covered) bonds containing a high proportion of such cover assets. Moreover, this quarter we are again using the database on the risk indicators of 242 covered bond programmes, which was made available together with the Sector Update, in order to provide a compact overview of the Moody's covered bond universe in a focus article for this this present edition of our weekly publication. In our view, this composition is highly relevant, not least because the agency covers a very large proportion of the active issuers and programmes in the EUR benchmark and EUR sub-benchmark segment (for further details, please refer to today's Covered Bond focus article). At this juncture, we would again like to highlight the current series of events organised by NORD/LB covering topical developments on the market for commercial real estate financing. As part of the digital format, Moody's risk expert Alexander Zeidler went into detail regarding the risk and rating drivers relevant to this market, and to the Pfandbrief segment in particular. You can view the presentation by Mr Zeidler and other speakers in the event series by clicking the following link. Should you have any questions about the event or regarding specific subjects, please do not hesitate to contact us.

Risk experts at Fitch believe covered bond ratings for APAC programmes are stable
The risk experts at Fitch recently commented on the active covered bond issuers in four Asia-Pacific jurisdictions. The agency also presented details on the evaluated programmes from Australia (9 programmes overall), New Zealand (5), Singapore (2) and South Korea (2). All programmes continue to be awarded the top rating AAA (with a stable outlook). In their "APAC Covered Quarterly - 2Q23", the risk experts comment in particular on interest rate developments in the jurisdictions and also address developments at the interface between inflation trends, unemployment and credit quality in real estate financing. In fact, Fitch explains that the cover assets in the four countries are performing well, which is ultimately reflected in low NPL ratios in the cover pools as well as in bank balance sheets as a whole. Based on dynamic issuing activity in the period under consideration, Fitch reaches the conclusion that pre-funding activities are already underway to a significant extent. Not all APAC programmes rated by Fitch contain EUR benchmarks. However, an Australian issuer in the form of Bendigo and Adelaide Bank has now entered the fray of this sub-market (cf. Covered Bond article in last week's edition of our weekly publication for further details).

Banca Popolare dell'Alto Adige: Green début in the EUR sub-benchmark segment
We would like to take the inaugural green bond placed by Banca Popolare dell'Alto Adige (Volksbank Südtirol) in the EUR sub-benchmark segment as an opportunity to look at the issuer in greater detail. The Italian regional bank concentrates most of its business activities on the Trentino-South Tyrol region, offering its 280,000 customers all the products and services of a universal bank. In the lending business, the focus is increasingly on sustainable investments. The rating experts at S&P rate Volksbank Südtirol's sustainability efforts as adequate, which is reflected in an ESG score of 67. According to the agency, the bank is still in the early stages of integrating ESG criteria into its lending and investment activities, and requires additional efforts to improve the rating. The bank's funding mix primarily comprises customer deposits, although this is supplemented by diversified capital market funding. Since 2019, the bank has been active in the EUR sub-benchmark market and has since successfully placed two covered bonds with a total volume of EUR 550m. Under its Green Bond Framework (GBF), the bank issued its first green covered bond in the EUR sub-benchmark format last Thursday. The bank is keen to strengthen its ESG approach and contribute to a more sustainable financial market by ramping up its green issuance activities. According to the GBF of Volksbank Südtirol, the cover pool assets for green covered bonds may only consist of loans for the construction or purchase of real estate that must either comply with at least one recognized environmental standard (e.g. LEED Gold) or have a class A or B energy efficiency certificate. The rating experts from Fitch have examined the bank's GBF in closer detail and arrived at the conclusion that the framework complies with the criteria of the ICMA Green Bond Principles 2021. However, as far as the EU taxonomy requirements are concerned, Fitch takes the view that the framework is not compatible with the EU regulatory framework. Although some of the EU taxonomy criteria are met, the GBF does not rule out the possibility of an infringement of one of the other five environmental goals (including combating climate change), and compliance with the minimum protection provisions is not guaranteed either. Fitch still identifies room for improvement in these areas. Despite the challenges with regard to adapting to the EU taxonomy, we do not see any break in the trend towards an increasing number of green issuances and look forward to welcoming additional newcomers to this market.

Market overview SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann

KfW-ifo SME Barometer: Business climate records fourth decline in succession

KfW published the latest results of its KfW-ifo SME Barometer on 19 September. Confidence among small and medium-sized companies (SMEs) in Germany has deteriorated further in view of a mixture of persistently high inflation, higher financing costs and further economic slowdown. The SME Barometer fell by 2.9 points to stand at -18.7 balance points in August – the lowest level since the beginning of the energy (price) crisis of last October. As was already the case in July, the situation assessments of SMEs fell more sharply (-4.5 points) than expectations (-1.5 points). The former have consequently fallen sharply to -10.6 balance points; the latter meanwhile have only fallen slightly to -26.3 balance points overall. Lately, an analysis across individual sectors shows a homogeneous picture: the retail sector recorded the most marginal deterioration in business confidence, down 0.3 points to -17.3 balance points. Confidence among service providers was down 6.4 points to -12.1 balance points, while the picture is far more pessimistic in the manufacturing industries (down 3.4 points to -24.8 balance points). In construction, confidence was down 3.0 points to -24.6 and in wholesale it dipped 1.3 points to stand at -30.1 balance points in total. The mood among large companies has now also deteriorated significantly after remaining relatively stable a month earlier. Confidence among these large enterprises fell by 3.5 points to -29.1 balance points in August, which was well below the level of SMEs. Whereas large enterprises have reported a similar deterioration in situation assessments to SMEs, (-4.5 points to -22.4 balance points), they downgraded their expectations more sharply in August (-2.7 points to -35.3 balance points). Dr. Fritzi Köhler-Geib, Chief Economist at KfW, summarises the situation as follows: "Following the mild technical recession in the past winter half-year and stagnation in the spring quarter, the German economy has been treading water for quite some time now, with business sentiment remaining in the doldrums for a further month – the fourth consecutive one. But there is reason for cautious hope. Noticeable wage increases, an employment level that appears to be nearly steady in light of the skills shortages and falling inflation. [...] After the unfavourable start to the year, I expect German GDP to contract by 0.4% across 2023 as a whole despite the consumption-driven stabilisation expected for the coming months."

North Rhine-Westphalia: Start-up Report 2023 – positive sentiment among start-ups

Meanwhile, the Start-up Report 2023 published by NRW on 21 September shows a much more upbeat picture for start-ups compared with current economic conditions: 57% of the entrepreneurs surveyed rated the ecosystem as "good" or "very good". In particular, they indicated that a whole series of events and promotional opportunities had contributed to creating the right conditions for the start-up scene. Above all, there was strong demand, especially for the start-up grant provided by NRW (35% of respondents) and the DWNRW-Hubs Accelerator Programme (24%). The biggest challenges for start-ups are winning customers as well as increasingly restrictive financing conditions. Moreover, more than one third of the start-ups surveyed met the definition criterion of "social entrepreneurs". Their main aim is to develop and offer solutions to societal challenges in the social or ecological sphere, and, on average, they make a contribution to at least four SDGs.

KfW: Energy Transition Barometer 2023

Staying on the subject of sustainability: KfW published its Energy Transition Barometer for 2023 at the beginning of this month, which shows encouraging results. Nine out of ten households (i.e. the same level as last year) remain firmly in support of the energy transition project, in spite of the challenges and uncertainties of last year. Meanwhile, the use of energy transition technologies has increased during the past year. Almost one in three households in Germany (32%), or around 13 million households (2022: 11.8 million), use at least one energy transition technology. First movers in this respect are mainly high-income households (42% in the top income quartile), although lower-income households are slowly catching up (25% in the lowest income quartile). The most frequently used technologies include photovoltaic installations at 12% (9% in the previous year), heat pumps and solar thermal systems at 10% (9%), while 6% of households have an electric car (5%). This year, 7% of households plan to acquire an energy transition technology, with solar panels (7%) and battery storage systems (6%) topping the list in this regard. There are also signs of an increase in the case of electric cars, with 3% of households planning to buy such a vehicle in 2023. The relative increase is in fact greatest in the case of electric cars at 50%. KfW Chief Economist, Dr. Fritzi Köhler-Geib, has said that the results of the KfW Energy Transition Barometer show that even during times of higher energy costs, people are very supportive of the energy transition and many want to participate actively.sectors to invest in sustainable digital transformation and therefore in the future.”

ICO and CAF: Agreement to promote sustainable and digital development

Another news from the field of sustainability reached us on 13 September from the Instituto de Crédito Oficial (ticker: ICO) and Corporação Andina de Fomento (Development Bank of Latin America and the Caribbean; ticker: CAF). José Carlos García de Quevedo, CEO of ICO, and CAF's Executive President, Sergio Díaz-Granados, signed an agreement for USD 300m to promote sustainable and digital development projects in Latin America and the Caribbean which will also have a transitive impact on Spanish economic activity. ICO and CAF have been working together for over 25 years. The latest (ninth) agreement between the two institutions was signed in Madrid during the CAF Conference "European Union, Latin America and the Caribbean: a joint agenda for development". Linked to this, the first meeting of Ministers of Economy and Finance of the European Union and Latin America and the Caribbean also took place, which was organised during the Spanish Presidency of the EU Council. García de Quevedo indicated that the recent agreement with CAF promotes the internationalisation of Spanish companies and strengthens financial support for sustainable projects in Latin America and the Caribbean, adding that “the ICO plays a key role in public-private partnerships to promote projects that drive the green and digital transition”. Since the beginning of the partnership, ICO has extended lines of credit to CAF amounting to a total of USD 1.3bn. Funds of around USD 200m were disbursed between 2021 and 2022, e.g. to support projects in sectors such as water supply and sanitation, sustainable transport and telecommunications in Uruguay, Argentina and Brazil, contributing to the Sustainable Development Goals (SDGs) of the 2030 Agenda, with a particular focus in this regard on SDGs 3 (Good Health and Well-Being), 6 (Clean Water and Sanitation), 11 (Sustainable Cities and Communities) and 13 (Climate Action). Based on the data of the last ten years and the fact that the ICO has only issued bonds worth around EUR 1bn so far this year, we still expect occasional further (ESG) appearance on the primary market.

EIB: 78th UN General Assembly and climate protection as development driver

On 20 September, Werner Hoyer, President of the European Investment Bank (ticker: EIB), took part in the UN General Assembly in New York, where he addressed leading world heads of state and government about the climate emergency and options to accelerate the *Global Agenda 2030* for sustainable development through innovative investment. On the subject of growing calls from around the world to accelerate climate protection measures, he stated: "Ambitious climate action is the great development accelerator for the years ahead: clean energy is now way cheaper, faster to deploy, and more reliable. Renewables are – for many countries – the only road to energy independence, and in most cases already today, the most efficient option. Decarbonisation creates jobs. In a development context, decarbonisation is not de-industrialisation, rather the opposite. And ambitious climate action offers vast investment opportunities." Hoyer warned that countries should not repeat the mistakes of a dark chapter in world history. Climate action, he said, could not be a one-way street and should not become "Colonialism 2.0". Europeans, he added, could not just leverage on the South's resources to produce green hydrogen, for example, or mining for the critical raw materials needed for batteries and electrification. What is needed are cooperative partnerships to find investment opportunities together. To this end, the EIB has decided to extend the maturity of state loans (to up to 30 years) and allow longer repayment-free periods, in order for projects which have been started to have sufficient time to become even more effective. In addition, the EIB is introducing a pilot clause with which vulnerable countries will be able to defer servicing their debt in the event of climate crises and natural disasters. In addition, new cooperation agreements have been signed and existing cooperations bolstered, among others with the UNDP, WHO, IOM, FAO and UNOPS. Hoyer was hopeful that a net zero target could be reached for greenhouse gases in the medium term.

Primary market

For this week, we can report on three new benchmarks and one tap, while various mandates are also on the cards. Let us begin, as usual, in chronological order: Bremen opened proceedings with a seven-year, EUR 500m bond guided at ms flat area. The deal was then completed at ms flat precisely, although no details were provided in relation to the order book. The second new issue came from KfW in the shape of a green bond in the amount of EUR 3bn with a term to maturity of just over seven years. The spread amounted to ms -2bp. The issue attracted orders in excess of EUR 4bn, which ultimately allowed a tightening of one basis point against the guidance. The trio of new deals was rounded off by ALSFR with a sustainable bond worth EUR 1bn and a term of 15 years. The deal was printed at OAT +49bp (guidance: OAT +50bp area). Moreover, Kommuninvest (ticker: KOMINS) tapped its 2030 green bond by EUR 250m in line with the guidance at ms +2bp. The following mandates have been awarded and we therefore expect corresponding deals in the near future: Lower Austria (EUR 500m, WNG for ten years); Hesse (5y EUR benchmark) and the ICO (EUR benchmark in the short to medium-term segment). Two items worth mentioning in our view, albeit over in the USD segment: ISDB raised USD 1.75bn at SOFR ms +52bp, while the AFDB roadshow for its announced sustainable, hybrid USD benchmark also continues to progress.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
ALSFR	FR	25.09.	FR001400L362	15.0y	1.00bn	ms +75bp	AA- / Aa2 / -	X
KFW	DE	25.09.	XS2698047771	7.4y	3.00bn	ms -2bp	- / Aaa / AAA	X
BREMEN	DE	20.09.	DE000A30V364	7.0y	0.50bn	ms flat	AAA / - / -	-

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

Covered Bonds
The covered bond universe of Moody's: an overview

Author: Dr Frederik Kunze

Moody's evaluates 242 covered bond programmes from around the world

The rating agency Moody's presented the latest issue of its Covered Bond Sector Updates (Q3 2023) back in August. The data is based on all the covered bonds rated by Moody's in Q4 2022. All in all, Moody's rated and presented detailed figures for 242 covered bond programmes from 30 countries. The agency therefore covers a significant proportion of the overall global covered bond universe. Based on the overall number, the majority of programmes come from Germany (40), followed by Austria (24) and Spain (23). In total, 12 countries with seven or more programmes respectively make up 78.6% (189 programmes) of the total number. The remaining 21.4% (53 programmes) are split between 18 jurisdictions, each of which has six or fewer programmes. Hardly surprisingly, mortgage-backed programmes (201 or 83.1%) make up the bulk of the programmes rated by Moody's. The rating agency also evaluates 39 public programmes (16.1%) from ten countries, although these are mainly concentrated in the jurisdictions of Germany (12 programmes), Austria (9), Spain (6) and France (4). One ship Pfandbrief programme and one assigned to the category "Other" (both from Germany) complete the list of 242 rated programmes. In the current article, we propose to highlight individual key figures, as is standard practice in our weekly publication.

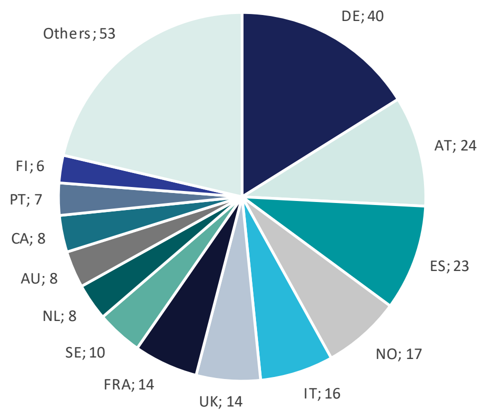
Focus on mortgage programmes from EUR benchmark jurisdictions

In relation to the Moody's rating universe, too, our focus is on mortgage programmes. These are domiciled almost entirely in EUR benchmark jurisdictions. We currently register no outstanding covered bonds in the EUR benchmark segment in Greece (4 programmes), Turkey (2), Hungary (2), Cyprus (1) or Romania (1). In the following, we therefore concentrate on those mortgage-backed programmes launched from EUR benchmark jurisdictions. It is important to bear in mind that EUR benchmark bonds do not necessarily have to have been issued under the programmes analysed for this purpose.

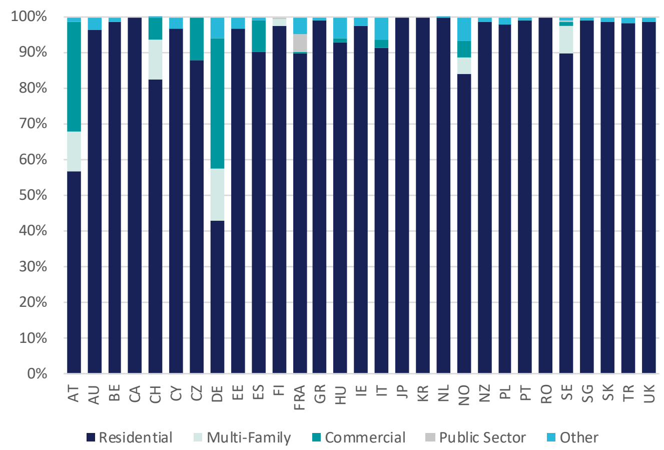
Majority of mortgage programmes are residential

As regards the classification of the cover assets of individual programmes carried out by Moody's, it is fair to say that, on average, issues are 84.5% covered by residential assets. In contrast, the proportion of commercial assets is relatively high in Germany (36.8%), Austria (30.7%), Czechia (12.0%) and Spain (9.1%). At the same time, Germany (14.4%), Austria (11.2%) and Switzerland (11.1%) have a significant share of multi-family-assets, as does Sweden (7.7%). With the exception of the countries mentioned earlier, as well as France (90.1%) and Norway (84.0%), the programmes of the remaining 21 jurisdictions have a proportion of residential assets in their cover assets of between 92.2% and 100%. In France, public-sector mortgage-backed cover assets (5.1%) and "Other" assets (4.7%) complement residential assets. Neither of the two programmes from Luxembourg includes mortgage assets.

Number of programmes with Moody's rating



Structure of cover assets (mortgage programmes)



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

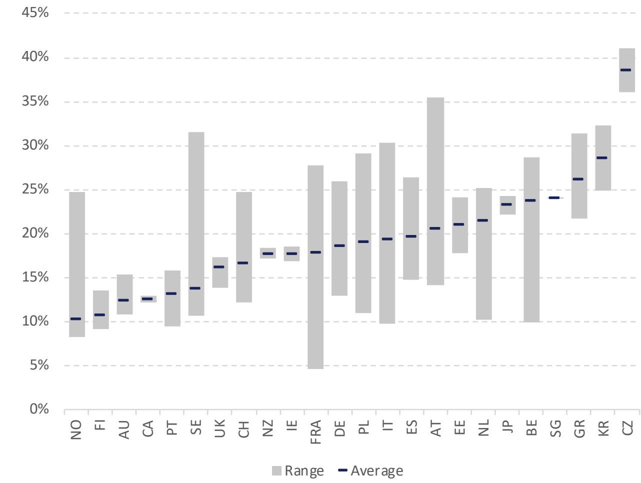
Collateral score as indicator of cover pool quality

In our view, the collateral score represents a key indicator in Moody's covered bond universe. The rating agency uses it to assess the quality of cover assets, with a low value indicating that the quality of the cover pool is high. The collateral score measures the deterioration in credit quality of assets included in the cover pool in connection with the theoretical highest possible rating in the relevant country. 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 5.0% as the lower limit for the collateral scores of most mortgage-based programmes. Yet, in Australia, some collateral scores are as low as 4.0%, while in Japan they can even be set at 0% due to the RMBS structure of the respective programmes. With the Netherlands, the UK, Canada and Singapore, four jurisdictions exclusively recorded scores of 5%. The range of collateral scores was also very narrow in New Zealand and Finland (both with a maximum of 5.1%). Germany (12.1%), Austria (11.9%), Greece (20.0%) and Cyprus (27.0%) had the highest average collateral scores. At the same time, a wide range of scores was recorded in Germany and Austria (23.2 and 13.6 percentage points respectively). This was also true of Norway (16.3 percentage points). As outlined above, Germany and Austria feature a comparatively high share of commercial assets in their respective cover pools. Evidently, a high share of commercial cover assets is associated with a higher collateral score.

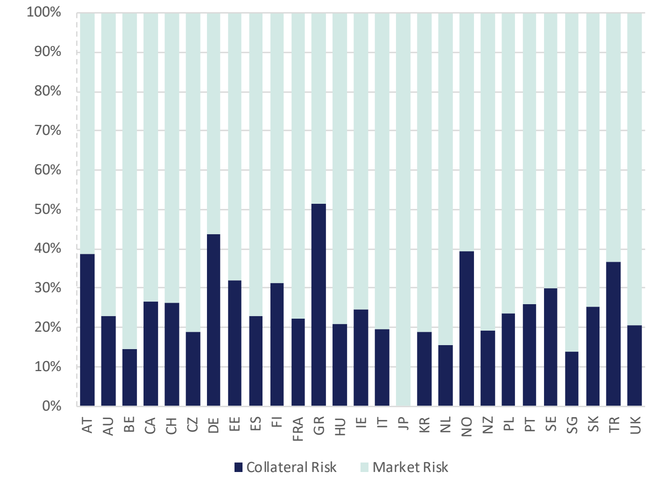
Cover pool losses: indicator of expected losses in the cover pool

Moody's uses cover pool losses (CPL) as an indicator to reflect the losses expected in the cover pool following issuer default (covered bond anchor event). The risk comprises two components, market risk (cover pool losses as a result of funding, interest rate and currency risks) and collateral risk (cover pool losses resulting from a deterioration in the credit quality of cover assets). Similar to the collateral score, a high degree of heterogeneity was evident in this respect in a global comparison. This is true of both average cover pool losses and the national range in each case. For example, cover pool losses are particularly low in Norway, Finland, Australia and Canada, whereas they are relatively high in the Czech Republic.

Cover pool losses by country (mortgage programmes)



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

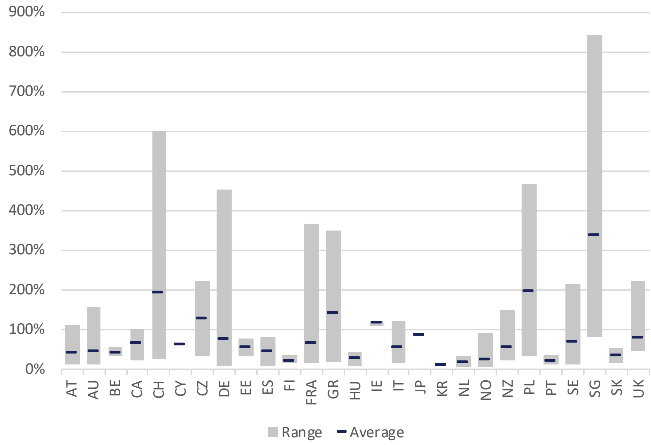


Source: Moody's, NORD/LB Markets Strategy & Floor Research

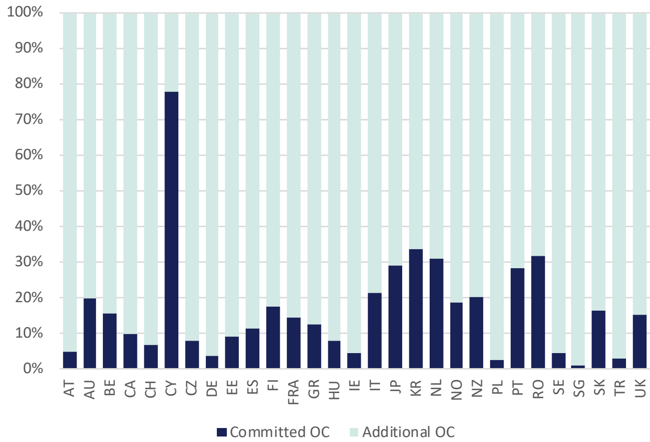
Refinancing, interest-rate and currency risk determine likely losses

The chart above on the right illustrates that the contribution of the two components (collateral risk and market risk) vary considerably at national level. The two programmes from Japan again play a special role: in view of their cover pool structure (exclusively RMBS transactions used as cover assets), there is no collateral risk. In principle, it is possible to deduce that the majority of cover pool losses are impacted by the market risk, i.e. losses in the event of issuer insolvency can be ascribed to the categories of funding risk, interest rate risk and currency risk, and are less the result of the quality of cover assets.

Overcollateralisation by country (mortgage programmes)



Composition of overcollateralisation (mortgage programmes)



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

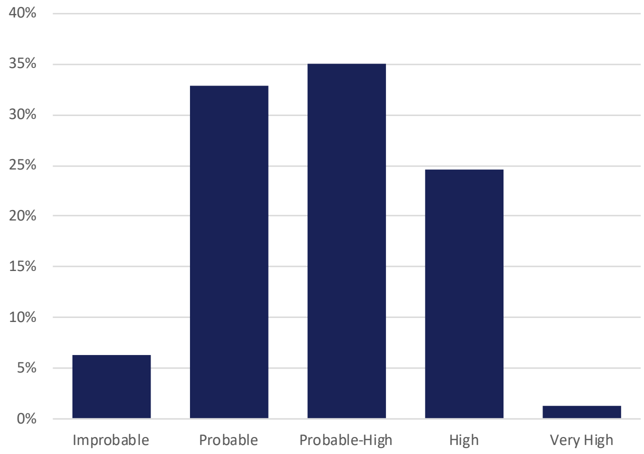
Overcollateralisation range still varies widely
Hardly surprisingly, there are also significant differences in an international comparison in relation to the overcollateralisation level of programmes rated by Moody's. We see high average overcollateralisation ratios for the relatively small covered bond jurisdictions of Poland, Switzerland, Greece and Singapore. At the same time, Switzerland, Poland and Greece show wide ranges which we also see in the case of Germany. Tighter ranges can often be attributed to a lower number of issuers in the respective jurisdiction.

Committed OC as minimum OC
Overcollateralisation (OC) can also be divided into sub-components. OC may have been committed vis-à-vis the rating agency, in order to secure a specific rating, or it may be based on legal requirements. Committed OC may therefore be understood to be a kind of lower limit for overcollateralisation, where the programme cannot readily fall below this limit, or where falling below this limit is not permitted at all. In contrast, actual overcollateralisation is only temporary in certain circumstances and may be subject to a certain level of volatility as a result of new bond issues or maturities. Overall, it can be stated that the higher share of overcollateralisation is made available by issuers on a voluntary basis, although this could certainly be due to low levels of committed OC. Furthermore, a high share of committed OC by no means also results in high overcollateralisation.

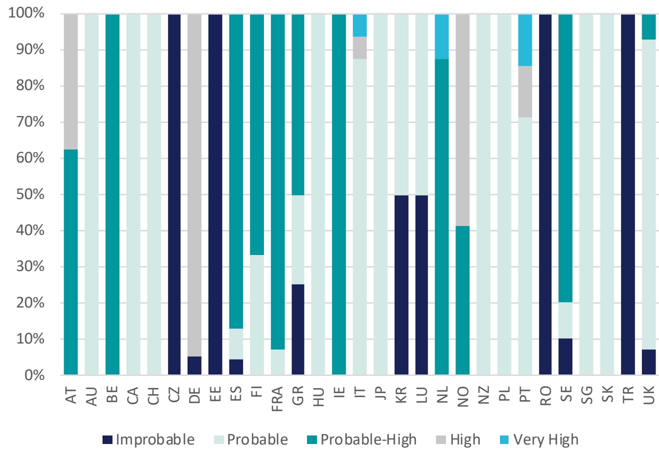
TPI restricts rating upgrade of covered bonds in relation to issuer rating
TPI rules restrict the potential covered bond rating to a specific number of notches above the issuer rating. The timely payment indicator (TPI) is a key figure Moody's makes available, which provides information about the probability of timely servicing of payment obligations following issuer default. It is differentiated in six levels, ranging from very high to very improbable. In each case, more than 30% of all the mortgage programmes rated by Moody's are in the "probable" or "probable-high" categories. In contrast, the outer limits are less represented, with shares of 6.3% (improbable) and 1.3% (very high) respectively. In a total of nine EUR benchmark jurisdictions, all programmes have the same timely payment indicator in each case (upper chart below right: TPIs by country). Italy, the Netherlands and Portugal each have one programme with a TPI of very high. In Germany (38 of 40 programmes) and Norway (11 of 17 programmes), the majority of the programmes rated are allocated to the category "high".

Buffer sufficient with regard to downgrades
In addition to the TPI, the TPI leeway indicates the number of notches by which the relevant covered bond anchor point can be downgraded without this entailing a downgrade of the rating for the covered bond programme, as laid down in the TPI framework. Accordingly, a total of six (2.9%) of the covered bond programmes rated by Moody's have no such buffer. This means that in the event of the covered bond anchor being downgraded, the direct consequence would be the downgrading of the programme. The highest incidence was a TPI leeway of four notches (53 programmes, or 25.2%). Five programmes, all of which are located in Germany (2.4%), have a buffer of seven notches. Six of the nine programmes in total with a TPI leeway of six notches are also based in Germany.

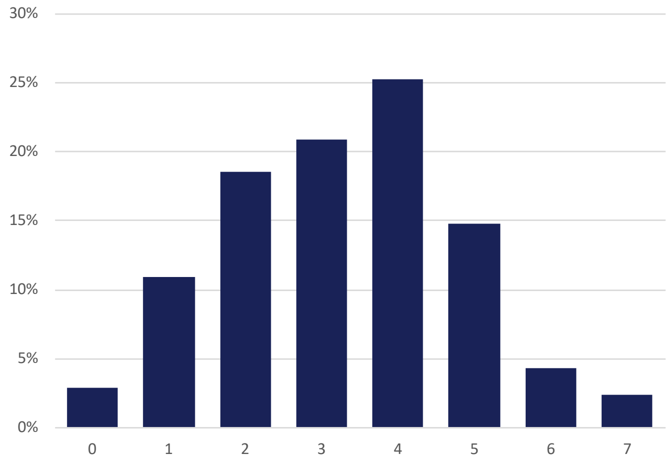
Timely Payment Indicator (TPI) (mortgage programmes)



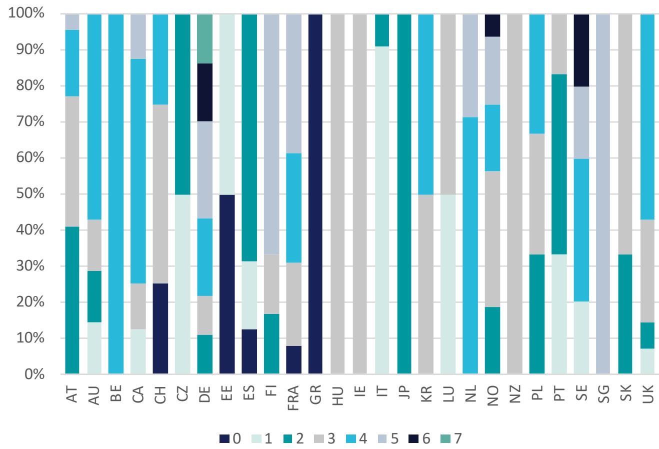
TPIs by country (mortgage programmes)



TPI leeway in notches (mortgage programmes)



TPI leeway in notches by country (mortgage programmes)



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

Conclusion

Moody's current Sector Report as well as the data on which it is based reflect the prevailing heterogeneity which exists in the covered bond market at jurisdiction level. Moody's aggregated parameters have delivered important insights into the relevant countries for several years, particularly regarding the occurrence of a credit event on the issuer side. However, differentiation within each jurisdiction is also necessary, as the case of Germany also highlights. At the same time, other factors that play a part in determining covered bond ratings but which are not included in this dataset are also highly relevant when assessing potential spread drivers. For Spain, Portugal and Italy, for example, a sovereign downgrade would also have implications for some issuers' covered bond ratings. With regard to deriving risk weighting and the LCR level, this may in turn result in a revaluation that causes a downgrade, depending on the availability of ratings from other rating agencies.

SSA/Public Issuers
Update on DEUSTD – Joint German cities (bond No. 1)

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann

Introduction

In February 2014, six cities in North Rhine-Westphalia placed the largest municipal communal bond in Germany to date. It was the first time in Germany that half a dozen cities in one federal state raised funds jointly on the capital market. Since then, German cities and municipalities have sought new albeit established forms of financing, as more and more banks have abandoned traditional credit-based municipal financing in response to ever diminishing yields. In the meantime, seven joint NRW municipal bonds have been issued under the ticker NRWGK, of which five are still outstanding. They will mature between February 2025 and August 2032 with amounts of EUR 125-500m.

Inaugural German cities bond – ticker: DEUSTD

An innovative new bond was launched for the first time on the German bond market at the end of November 2018: the security issued was innovative in that cities from various federal states tapped the market jointly for the first time. The issuers of Bochum, Celle, Emden, Essen and Saarbrücken participated in the bond with differing amounts: accordingly, Essen (EUR 55m), Saarbrücken (EUR 55m) and Bochum (EUR 50m) accounted for the largest shares, while smaller amounts of the total volume of EUR 200m were attributable to Emden (EUR 25m) and Celle (EUR 15m). Such differences are not unusual in this segment and were also a feature of the joint municipal bonds from NRW. Despite the order book being handsomely oversubscribed at EUR 336m, the bond was not increased. Nevertheless, strong demand supports the appeal of joint city bonds as an asset category. The coupon was set at 1% and, at ms +20bp, the ten-year bond’s pricing was a few basis points more expensive for investors than had been expected. Recently, the bond was quoted at around 88% and the yield was just under 3.6% for current purchasers. At one time, the main purchasers were banks and Sparkassen (savings banks), with 14% of the bond also being sold to purchasers abroad. In a manner of speaking, this new form of bond transfers the principle of the Joint German Laender Bonds (ticker: LANDER) or the now long overdue Bund-Laender Bond (ticker: BULABO) to lower administrative level.

Update on the miracle of Mainz: Goldgrube (the gold mine) bonanza is over (for now)

In the past, reports were issued from an address that could not have been more aptly named: An der Goldgrube 12 (No. 12 The Goldmine). As you probably know, this is the address of the Mainz-based company BioNTech, which not only gave us a reliable vaccine against Covid but also generated a veritable bonanza for the city’s finances in 2021 and 2022. According to Mayor Beck, the city received (additional) tax revenues of EUR 830m and EUR 1.2bn respectively. This historic opportunity was used to ensure that Mainz had no liquidity loans outstanding at the end of 2022 for the first time since 1992. However, falling sales at BioNTech and the reduction in the trade tax assessment rate resulted in falling revenues in 2023. The city of Mainz currently has two floating rate bonds of between EUR 100-125m outstanding under its ticker MAINZ. One falls due in September each year, the next on 29 September 2023.

Where we stand now in terms of the municipal budget situation: another surplus in 2022

Despite multiple challenges, the municipalities and municipal associations (excluding city states) reported a financial surplus of just under EUR 2.6bn (core and extra budgets) nationwide in 2022. The municipal surplus had amounted to EUR 4.6bn in the previous year. In particular, a sharp fall in the municipalities' share of sales tax of 9.2% was a decisive factor in reducing surpluses in core budgets. However, this was offset by an increase in trade tax revenues of 13.9% (net). Overall, municipal tax revenues increased by 7.1% or EUR 8.1bn compared with 2021 and came to EUR 121.5bn. Consequently, the municipalities received adjusted revenues of EUR 328.4bn in 2022, i.e., 6.6% or EUR 20.4bn more than in 2021. However, expenditure also rose sharply by 7.4% and therefore amounted to EUR 325.8bn. This was largely attributable to the changes in energy costs resulting from the ongoing war in Ukraine. Please refer to our NORD/LB Issuer Guide – German Laender 2023 for more information and data regarding municipal budgets.

ESG also gaining ground among municipalities

To talk of sustainability bonds as a trend does not do justice to either their volume or significance. It is a fact that sustainability is a growing topic for municipalities as well and we welcome this development. Hanover, the capital of Lower Saxony, paved the way in 2018. It raised EUR 100m in the capital market with a sustainability SSD and invested the proceeds exclusively in municipal building stock, achieving energy and CO2 savings and facilitating accommodation for refugees and the homeless. The city of Munich followed with a social municipal bond shortly afterwards in 2020. It was worth EUR 120m and helped to ensure affordable housing. In April 2022, the city of Muenster announced in a press release that it too wished to get involved in this segment and was preparing to issue a sustainable SSD in September 2022. It stated that the city would like to focus on sustainability not only in its investments, but also in its financing. In response to the significant interest this generated, the city opted to increase the volume from its originally planned EUR 100m to EUR 140m. The projects include new buildings and extensions to schools in compliance with modern energy-efficiency standards and the completion of the fourth treatment stage at the main sewage treatment plant but also take the municipal networks Münster GmbH into consideration here. Based on the previous successful issues by the municipalities listed in this section, the city of Cologne also specified the details of its plans to place a green bond in December 2022. According to the city treasurer Dörte Diemert, the issue should still take place in 2023.

Database

In the following section, we look at transactions to date and the corporations involved in the inaugural German cities bond. In so doing, use is made of key economic figures, budget data and information on borrowing obtained from the vdpKommunalScore statistics provided by vdpExpertise GmbH. To avoid inaccuracies caused by different accounting policies (single and double-entry), the income and expenses of corporations using single-entry accounting are adjusted. Imputed variables, transfers from the administrative to the capital budget and target shortfalls in the administrative budget are not taken into consideration.

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Economic and structural key metrics

Population	2017	2018	2019	2020	2021
Bochum (independent city)	365,529	364,628	365,587	364,454	363,441
Celle (independent municipality)	69,706	69,602	69,540	69,399	69,279
Emden (independent city)	50,607	50,195	49,913	49,874	49,523
Essen (independent city)	583,393	583,109	582,760	582,415	579,432
Saarbrücken (independent municipality)	180,966	180,741	180,374	179,349	179,634

Population growth rate (%)	2017	2018	2019	2020	2021
Bochum (independent city)	0.17%	-0.25%	0.26%	-0.31%	-0.28%
Celle (independent municipality)	0.21%	-0.15%	-0.09%	-0.20%	-0.17%
Emden (independent city)	0.24%	-0.81%	-0.56%	-0.08%	-0.70%
Essen (independent city)	0.05%	-0.05%	-0.06%	-0.06%	-0.51%
Saarbrücken (independent municipality)	0.70%	-0.12%	-0.20%	-0.57%	0.16%

GDP per capita in EUR	2017	2018	2019	2020	2021e
Bochum (independent city)	32,108	33,655	34,958	34,802	*34,802**
Celle (independent municipality)	28,585	30,093	30,742	29,590	*29,590**
Emden (independent city)	68,495	73,208	75,383	66,202	*66,202**
Essen (independent city)	42,296	44,188	45,114	44,669	*44,669**
Saarbrücken (independent municipality)	44,197	45,008	44,712	43,235	*43,235**
Germany	39,527	40,623	41,801	40,495	*40,495**

GDP per capita in relation to Germany	2017	2018	2019	2020	2021e
Bochum (independent city)	81.23%	82.85%	83.63%	85.94%	*85.94%**
Celle (independent municipality)	72.32%	74.08%	73.54%	73.07%	*73.07%**
Emden (independent city)	173.29%	180.21%	180.34%	163.48%	*163.48%**
Essen (independent city)	107.01%	108.78%	107.93%	110.31%	*110.31%**
Saarbrücken (independent municipality)	111.81%	110.79%	106.96%	106.77%	*106.77%**

Unemployment rate	2017	2018	2019	2020	2021
Bochum (independent city)	9.7%	8.9%	8.5%	9.4%	9.1%
Celle (independent municipality)	7.1%	6.2%	5.7%	6.4%	6.0%
Emden (independent city)	8.7%	8.1%	8.2%	9.0%	8.5%
Essen (independent city)	11.4%	10.6%	10.2%	11.0%	10.8%
Saarbrücken (independent municipality)	9.3%	8.6%	8.8%	10.3%	9.6%
Germany	5.7%	5.2%	5.0%	5.9%	6.3%

Source: vdpKommunalScore, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

** taken from the previous year*

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Structural data

If we look at the economic and structural figures of the cities involved, it is clear that there are considerable differences. These vary significantly firstly in terms of the number of inhabitants and secondly in their economic performance. For example, Essen is more than twelve times larger than Emden, but per capita GDP in the East Frisian city with its industrial harbours, dockyards and the motor manufacturer VW is by far the highest of the five municipalities. Population numbers in all the cities remained constant – albeit falling slightly – in recent years. Following an increase in 2020, the year of the pandemic, all the cities report a slight fall in unemployment figures year on year. Unemployment in all the municipalities under consideration is always higher than the German average with the exception of the city of Celle in 2021 (6.0% vs. German average 6.3%).

Key budget metrics

Current revenues (EURm)

	2017	2018	2019	2020	2021
Bochum (independent city)	1,266.79	1,390.95	1,413.64	1,446.06	1,268.75
Celle (independent municipality)	216.85	219.56	201.12	181.71	176.90
Emden (independent city)	154.90	155.67	164.79	166.48	186.99
Essen (independent city)	2,932.04	2,981.51	3,042.35	3,176.61	3,203.03
Saarbrücken (independent municipality)	477.54	469.61	490.02	552.18	498.23

Current expenses (EURm)

	2017	2018	2019	2020	2021
Bochum (independent city)	1,244.89	1,269.54	1,282.65	1,339.16	1,447.81
Celle (independent municipality)	214.30	204.75	181.61	148.05	152.49
Emden (independent city)	152.71	155.60	157.47	165.64	175.66
Essen (independent city)	2,668.74	2,756.01	2,832.43	2,973.15	3,134.32
Saarbrücken (independent municipality)	426.82	435.06	450.77	451.69	444.90

Of which interest payments (EURk)

	2017	2018	2019	2020	2021
Bochum (independent city)	23,927.13	19,379.62	18,706.68	19,831.58	15,793.44
Celle (independent municipality)	3,332.64	3,850.27	3,711.59	3,308.48	3,098.92
Emden (independent city)	-931.26	-1,790.30	-736.13	-1,401.49	-1,678.00
Essen (independent city)	42,294.43	37,918.76	31,330.51	25,627.55	24,170.25
Saarbrücken (independent municipality)	17,752.16	13,205.11	11,761.64	10,089.74	9,974.02

Interest payments as a % of current revenues

	2017	2018	2019	2020	2021
Bochum (independent city)	1.89%	1.39%	1.32%	1.37%	1.01%
Celle (independent municipality)	1.54%	1.75%	1.85%	1.82%	1.75%
Emden (independent city)	-0.60%	-1.15%	-0.45%	-0.84%	-0.90%
Essen (independent city)	1.44%	1.27%	1.03%	0.81%	0.75%
Saarbrücken (independent municipality)	3.72%	2.81%	2.20%	1.83%	2.00%

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

Key budget metric

There are also major differences in the size of the cities' budgets due to the differences in population. As expected, Essen, where both revenues and expenses in 2021 were higher than in the four other municipalities together, is predominant. As far as interest payments are concerned, it is striking that these are far higher as a percentage of current income in Saarbrücken than in the other cities. The reverse is true in Emden, which only reported interest income in the period under review. Generally, with the exception of Saarbrücken, all the issuers of the German cities bond are paying less interest, in some cases significantly less.

Key debt figures

Total debt (EURm)

	2017	2018	2019	2020	2021
Bochum (independent city)	1,815.19	1,757.76	1,722.45	1,777.88	1,756.51
Celle (independent municipality)	254.73	253.57	231.30	269.22	252.32
Emden (independent city)	176.42	210.66	199.03	198.90	219.00
Essen (independent city)	3,456.38	3,355.54	3,357.57	3,034.72	3,020.64
Saarbrücken (independent municipality)	1,397.46	1,386.75	1,379.02	1,293.66	1,250.96

Debt per capita (EUR)

	2017	2018	2019	2020	2021
Bochum (independent city)	4,965.92	4,820.68	4,711.45	4,878.19	4,833.00
Celle (independent municipality)	3,654.38	3,643.14	3,918.93	3,879.37	3,642.03
Emden (independent city)	3,486.02	4,196.84	3,987.62	3,988.04	4,422.10
Essen (independent city)	5,924.61	5,754.57	5,761.50	5,210.57	5,264.87
Saarbrücken (independent municipality)	7,722.25	7,672.59	7,645.36	7,213.10	6,963.96

Debt as a % of total revenues

	2017	2018	2019	2020	2021
Bochum (independent city)	138.14%	122.02%	117.55%	118.70%	108.13%
Celle (independent municipality)	111.20%	111.31%	132.17%	136.56%	131.59%
Emden (independent city)	111.72%	131.83%	117.11%	114.19%	113.65%
Essen (independent city)	114.50%	109.39%	106.44%	92.34%	91.88%
Saarbrücken (independent municipality)	288.36%	292.28%	276.22%	226.29%	246.59%

Share of Kassenkredite as a % of debt of the original administration

	2017	2018	2019	2020	2021
Bochum (independent city)	38.13%	28.67%	26.75%	25.38%	22.58%
Celle (independent municipality)	37.10%	31.12%	24.43%	22.35%	21.09%
Emden (independent city)	0.00%	8.77%	0.00%	0.00%	0.00%
Essen (independent city)	51.19%	49.81%	48.46%	42.09%	40.07%
Saarbrücken (independent municipality)	68.33%	61.91%	61.47%	55.53%	52.83%

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

Key debt metrics

Indebtedness in the five cities under consideration is between 90% and 140% of revenues for Bochum, Celle, Emden and Essen. Saarbrücken is an outlier in this respect, at 246.6%, although this is the second-lowest figure recorded for the Saarland-based city in the period under review. In 2021, all the cities apart from Saarbrücken improved their debt ratio in comparison with the previous year; only the finance officers in Emden failed to achieve a reduction in the absolute amount. For debts per inhabitant, the cities of Emden and Essen reported an increase compared with the previous year. The figure for Celle decreased by somewhat more than EUR 237 per capita as a result of the reduction in total debt. With the exception of 2018, Emden has refrained entirely from incurring short-term liabilities in the form of Kassenkredite loans, whereas these loans account for somewhat more than 52% of the debts of the original administration in Saarbrücken.

Explanation of the following table

In the following section, we look at transactions to date in the municipal subsegment. Among others, the table does not contain SSD, such as those issued by the city of Hanover. The first green and social SSD to be issued by a German municipality (EUR 100m) was issued here in 2018. In the interests of completeness and transparency, the table also contains some bonds that have matured in the meantime (crossed out) to consult a certain amount of data to compare pricing. As far as bonded loans are concerned, the amortising bond (EUR 50.1m) issued by Hanover in April 2022 is not included because of its structure and the fact that it cannot therefore be compared with the others. The same is true of the SSD issued by Muenster (EUR 140m) in September 2022, but this should not be left unmentioned.

Municipal bonds: issuance history

Issuer	Coupon	Timing	ISIN	Initial Maturity	Initial Spread	Volume
~~Hannover~~	~~Fix~~	~~23.11.09~~	~~DE0001372837~~	~~10.0y~~	~~ms +25bp~~	~~180m*~~
~~Essen~~	~~Fix~~	~~22.02.10~~	~~DE000A1C9269~~	~~5.0y~~	~~ms +13bp~~	~~200m~~
~~Mainz~~	~~Float~~	~~12.11.13~~	~~DE000A1YCRQ2~~	~~5.0y~~	~~FRN~~	~~125m~~
~~Nürnberg-Würzburg~~	~~Fix~~	~~08.05.13~~	~~DE000A1TNFP6~~	~~10.0y~~	~~ms +38bp~~	~~100m~~
~~NRW Cities #1~~	~~Fix~~	~~06.02.14~~	~~DE000A11QCH9~~	~~4.0y~~	~~ms +35bp~~	~~500m**~~
Ludwigshafen	Fix	27.11.14	DE000A13SLB5	10.0y	ms +41bp	150m
NRW Cities #2	Fix	19.02.15	DE000A14KP45	10.0y	ms + 50bp	500m
~~NRW Cities #3~~	~~Fix~~	~~10.06.15~~	~~DE000A161UQ4~~	~~7.0y~~	~~ms +40bp~~	~~250m~~
~~Mainz~~	~~Float~~	~~16.09.15~~	~~DE000A168YZ2~~	~~7.0y~~	~~FRN~~	~~150m~~
~~Dortmund~~	~~Float~~	~~09.03.16~~	~~DE000A2AAL07~~	~~6.0y~~	~~FRN~~	~~120m~~
Mainz	Float	27.04.16	DE000A2BPUH3	7.4y	FRN	125m
Bochum	Fix	11.05.16	DE000A2AATG1	10.0y	ms +50bp	115m
NRW Cities #4	Fix	31.05.16	DE000A2AAWM3	10.0y	ms +49bp	125m
Mainz	Float	16.02.17	DE000A2DADA2	7.6y	FRN	100m
Dortmund	Fix	22.03.17	DE000A2E4YF9	10.0y	ms +35bp	140m
NRW Cities #5	Fix	04.04.17	DE000A2DALY5	10.0y	ms +38bp	250m
Ludwigshafen	Fix	28.11.17	DE000A2GSSS7	10.0y	ms +22bp	150m
NRW Cities #6	Fix	20.02.18	DE000A2G8VA5	10.0y	ms +24bp	250m
~~Mainz~~	~~Float~~	~~07.11.18~~	~~DE000A2NBJM1~~	~~2.3y~~	~~FRN~~	~~125m~~
Joint Cities (DEUSTD)	Fix	28.11.18	DE000A2LQRG8	10.0y	ms +20bp	200m
Dortmund	Fix	14.10.19	DE000A2YN264	10.0y	ms +17bp	130m
Munich	Fix	11.02.20	DE000A254SP3	12.8y	ms +15bp	120m
Bochum	Fix	11.11.20	DE000A289FM3	10.0y	ms +23bp	250m
NRW Cities #7	Fix	24.08.22	DE000A30VKN0	10.0y	ms +25bp	125m
Dortmund	Fix	23.05.23	DE000A351TQ3	7.0y	ms +38bp	110m

* Subsequently increased by EUR 75m ** subsequently increased by EUR 100m

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

Overview – municipal bonds

A brief glance in the rearview mirror provides us with the most important key figures for the seven joint municipal bonds issued by North Rhine-Westphalia to date under the NRWGK ticker.

Launched in February 2014

The then four-year bond issued by the six cities was given a coupon of 1.125% p.a. However, the target benchmark volume was not achieved. The financial officers also hoped (justifiably) to attract a larger group of investors by acting together. A total of 93% of the volume was sold in Germany, mostly to savings banks, banks and insurance companies. A wider diversification of risk appealed to investors: in the case of the first joint municipal bond, 28% of the volume was bought by investors in Essen, while a fifth each went to Dortmund and Wuppertal. In particular, the Ruhr cities of Dortmund and Essen had already accumulated significant liabilities at the time.

Joint NRW municipal bonds (ticker: NRWGK)

Joint municipal bond #1 (already reached maturity)

City	Share	Volume
Dortmund	20%	EUR 400m
Essen	28%	**Coupon**
Herne	8%	1.125%
Remscheid	18%	**Term**
Solingen	6%	4 years
Wuppertal	20%	**Increase**
Total	**100%**	Yes
Issued: February 2014		EUR +100m

Joint municipal bond #2

City	Share	Volume
Bochum	25%	EUR 500m
Essen	40%	**Coupon**
Herne	10%	1.125%
Remscheid	5%	**Term**
Solingen	10%	10 years
Wuppertal	10%	**Increase**
Total	**100%**	No
Issued: February 2015		

Joint municipal bond #3 (already reached maturity)

City	Share	Volume
Bielefeld	20%	EUR 250m
Essen	20%	**Coupon**
Gelsenkirchen	24%	1.25%
Hagen	16%	**Term**
Remscheid	20%	7 years
Total	**100%**	**Increase**
Issued: June 2015		No

Joint municipal bond #4

City	Share	Volume
Hagen	30%	EUR 125m
Remscheid	30%	**Coupon**
Solingen	40%	1.00%
Total	**100%**	**Term**
		10 years
		Increase
Issued: May 2016		No

Joint municipal bond #5

City	Share	Volume
Essen	42%	EUR 250m
Gelsenkirchen	30%	**Coupon**
Remscheid	16%	1.00%
Solingen	12%	**Term**
		10 years
Total	**100%**	**Increase**
Issued: April 2017		No

Joint municipal bond #6

City	Share	Volume
Essen	44%	EUR 250m
Hagen	16%	**Coupon**
Herne	16%	1.375%
Remscheid	8%	**Term**
Solingen	16%	10 years
Total	**100%**	**Increase**
Issued: February 2018		No

Joint municipal bond #7

City	Share	Volume
Essen	44%	EUR 125m
Hagen	32%	**Coupon**
Remscheid	24%	1.95%
		Term
		10 years
Total	**100%**	**Increase**
Issued: August 2022		No

Sources: Issuers, NORD/LB Markets Strategy & Floor Research

Interim conclusion: municipalities cannot become insolvent

As an interim conclusion, it should be noted in principle that municipalities are not eligible for insolvency. Insolvency is not an option for a municipality according to Section 128 para. 2 GO NRW (Municipal Code for the State of North Rhine-Westphalia) and Section 12 para. 1 Insolvency Code. Ultimately, the Laender are liable for the municipalities and the German government is liable for the Laender according to the principle of Federal loyalty (implicit).

Subsequent transactions

The NRW cities bond #1 issued on 6 February 2014 was successfully increased by EUR 100m in November of the same year and achieved benchmark format as a result. Following the successful debut of NRWGK #1, the subsequent transaction (NRWGK #2) was also placed successfully on the capital market one year later. "Only" five municipalities then issued the third joint cities bond. The transaction in June 2015 raised EUR 250m for seven years, with the largest share going to Gelsenkirchen this time (24%). Once again, the majority of the transaction was placed with German financial institutions. The transaction at the end of May 2016 raised EUR 125m for ten years. This transaction differed in that there were only three participants, namely Hagen (30%), Remscheid (30%) and Solingen (40%). It was at this point, at the latest, that the segment of large volume (joint) city bonds was identified outright as an independent asset category in the capital market. At the end of March 2017, it was said that four cities would again join forces for the fifth joint transaction. An amount of EUR 250m (no-grow) and a maturity of ten years at pricing of ms +38bp was also mentioned. A total of 12% of the issuance volume was placed in neighbouring Benelux countries, with a total of 57% ending up on the books of commercial banks and savings banks, while institutional investors bought 39%. Ludwigshafen, Dortmund, Bochum and Mainz must also be mentioned here – the latter giving preference to FRN on the market. In 2018, placement of the sixth NRW cities bond was already pending: the cities of Essen, Hagen, Herne, Remscheid and Solingen jointly raised EUR 250m (no-grow) for a period of ten years. The first joint NRWGK also matured on 13 February 2018. While we do not examine SSD here (see our comments on the Hanover Green bond), the city of Mainz also issued a floater in November, which had a volume of EUR 125m and matured in March 2021. However, the highlight of 2018 was the innovative Joint German cities bond No. 1 (ticker: DEUSTD), which was also issued in November. The market segment for municipal bonds was rather quiet in 2019. Nevertheless, we reported a ten-year IHS in the amount of EUR 130m issued by the city of Dortmund in mid-October. The aforementioned bond issued by the city of Hanover in 2009 also matured at the beginning of December that year. Fresh life was breathed into the municipal bond segment again in 2020 with the city of Munich tapping the capital market with a 12y EUR 120m social bond in February. The funds raised are intended to ensure affordable housing. The same year, the city of Bochum also issued a bond, raising EUR 250m, with the order book for the deal reaching EUR 345m. Jumping forward to 2022, a redemption bond issued by the city of Hanover in the amount of EUR 50.1m was observed in April. This was followed by NRWGK #7 in August. The cities of Essen, Hagen and Remscheid successfully placed EUR 125m for ten years on the market; the coupon was 1.95%. The first half of 2023 was distinctly quiet on the municipal bond market. Only the city of Dortmund raised EUR 110m over seven years in May. However, we are banking on a continuation of the DEUSTD ticker, which would have a particular flavour again – depending, in particular, on the cities involved.

Each city is liable according to its share

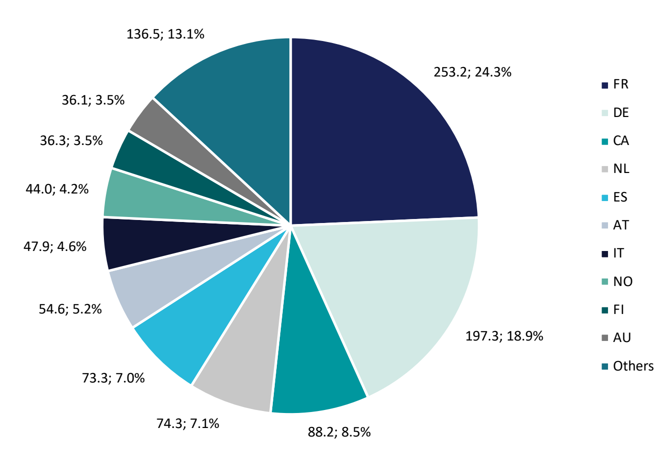
The scenario in which a debtor defaults on repayment of the bond or becomes insolvent is presumably of interest. The rules governing liability among the issuing cities are as follows: the bond's joint debtors are the respective cities involved, which are only liable in line with their share of the bond. Interest payments must also be made in proportion to these shares. The creditworthiness or rating of cities will not be affected if one of the issuing cities gets into financial difficulties during the term of the bond or at the repayment date. For the reasons mentioned above, they are not subject to "financial problems" (in the narrower sense). Furthermore, municipalities are not rated, as is the case for all joint cities bonds. This construct is also the crux of the matter for some investors, as often each participant in the issuer group necessitates a separate check, and the participating municipalities frequently change from bond to bond.

Conclusion and outlook

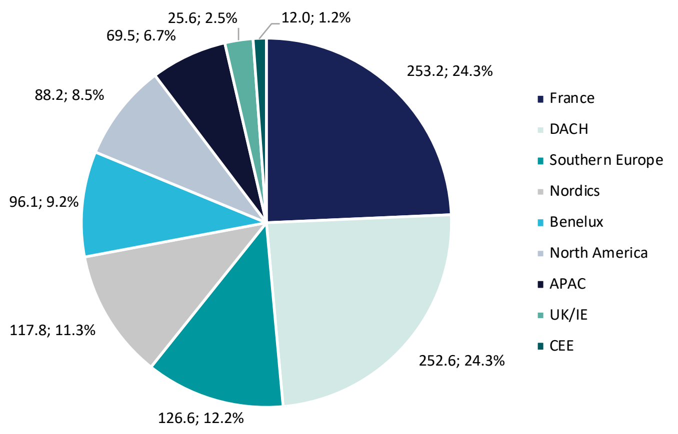
Cities or municipalities are likely to continue joining forces on a regular basis and issuing joint bonds in future. One of the crucial arguments for the issuers is likely to remain unchanged, namely they can appeal to more investors by issuing comparatively larger amounts, which is likely to have a favourable impact on refinancing costs in turn. On top of this, the regulatory burden associated with a joint city bond and the associated costs are often too much for the cities involved alone. SSDs, which have advantages compared with a bearer bond due to their streamlined documentation and the fact that they are both familiar to and popular with investors, therefore provide a sensible alternative. Although international investors have also become far more aware of SSDs in recent years, they are still not likely to be as familiar as traditional bonds. Even though the amount of the first cities bond encompassing cities from several Laender was not substantial at EUR 200m, the mix of municipalities is intriguing. It then became clear that the combination of cities and municipalities would likely continue to work across federal state boundaries in future. Nevertheless, with regard to ESG topics, many municipalities without an existing suitable framework are likely to face similar obstacles in the future. In practice, inflexible municipal financial laws, in some cases, could pose a few challenges to this approach in the early stages, which would have to be resolved for a transaction to succeed. Münster, for example, has been working on this since September 2021. In addition, jointly issued bonds frequently pose a bureaucratic burden for institutional investors as, depending on their internal guidelines, they require a separate credit line for each municipality. However, ESG is likely to provide further impetus, as many municipalities are likely to be battling similar issues when seeking to implement futureproofing initiatives.

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



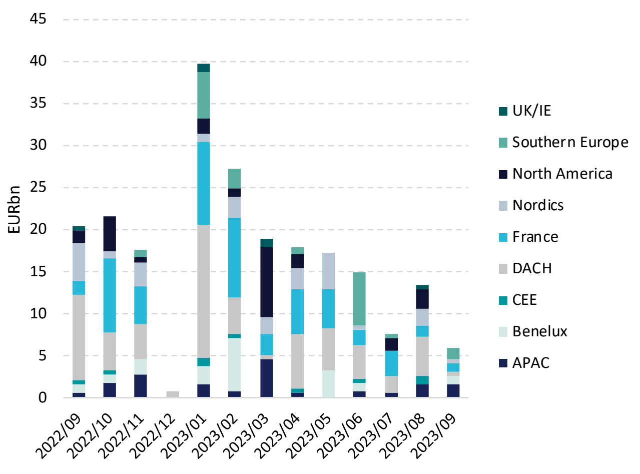
EUR benchmark volume by region (in EURbn)



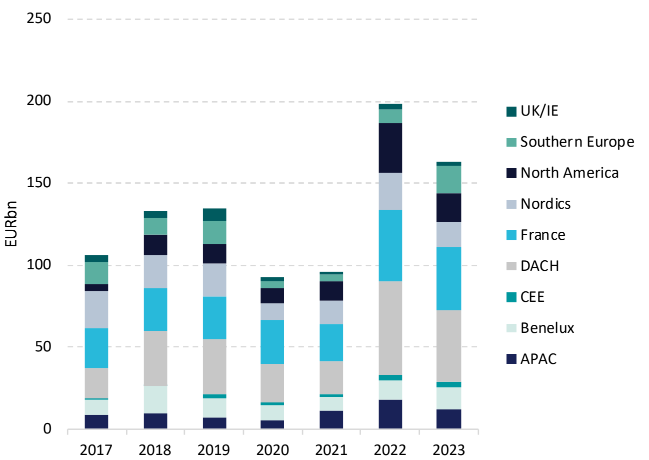
Top-10 jurisdictions

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	253.2	243	19	0.97	9.5	5.0	1.25
2	DE	197.3	281	35	0.65	8.0	4.1	1.13
3	CA	88.2	65	0	1.33	5.5	2.8	1.08
4	NL	74.3	75	2	0.92	10.8	6.5	1.06
5	ES	73.3	58	6	1.15	11.2	3.3	1.95
6	AT	54.6	93	4	0.58	8.2	4.8	1.35
7	IT	47.9	57	2	0.81	8.9	3.7	1.51
8	NO	44.0	53	12	0.83	7.4	3.7	0.62
9	FI	36.3	40	4	0.89	7.0	3.6	1.28
10	AU	36.1	35	0	1.03	7.1	3.3	1.49

EUR benchmark issue volume by month

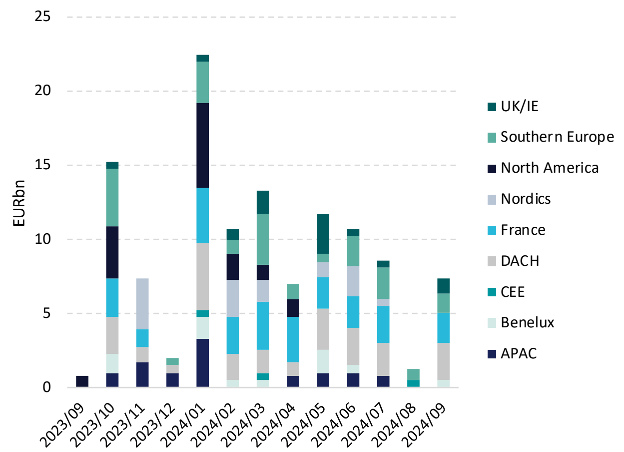


EUR benchmark issue volume by year

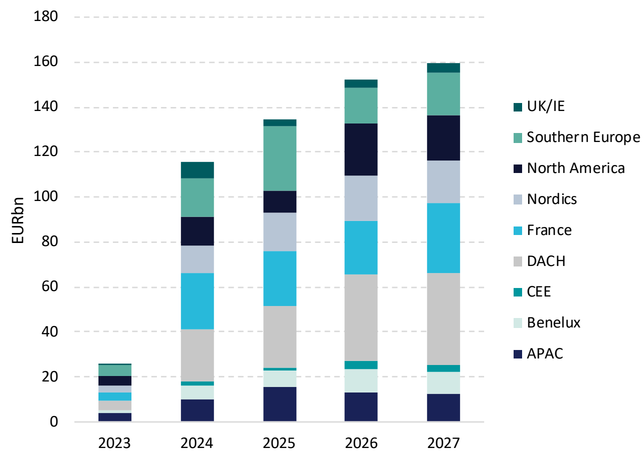


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

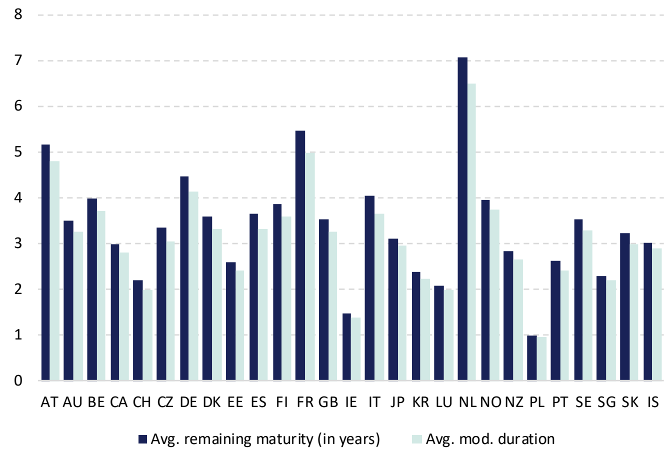
EUR benchmark maturities by month



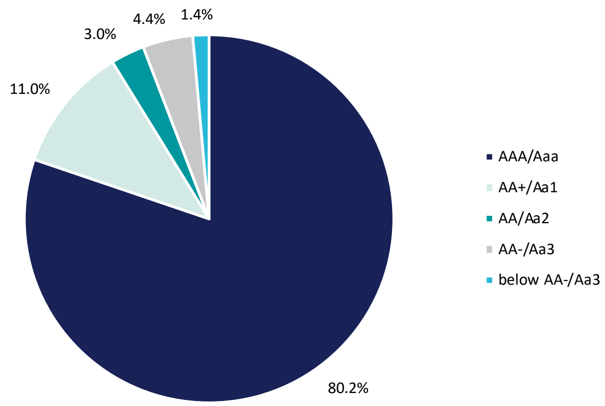
EUR benchmark maturities by year



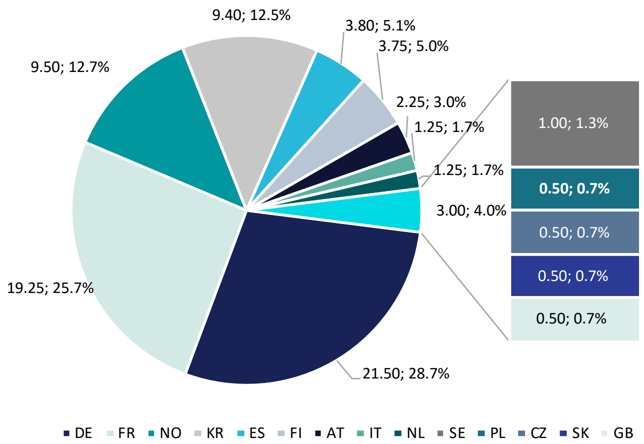
Modified duration and time to maturity by country



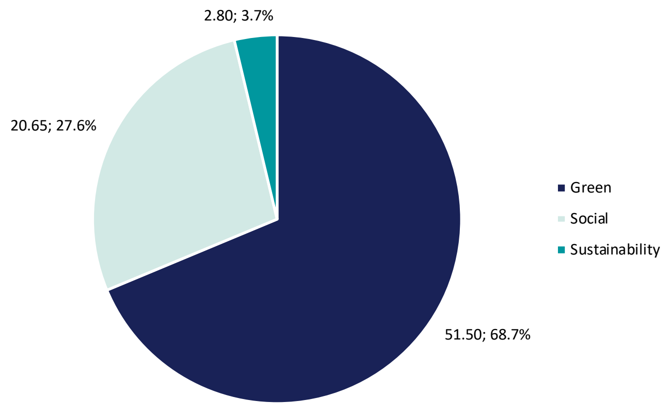
Rating distribution (volume weighted)



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

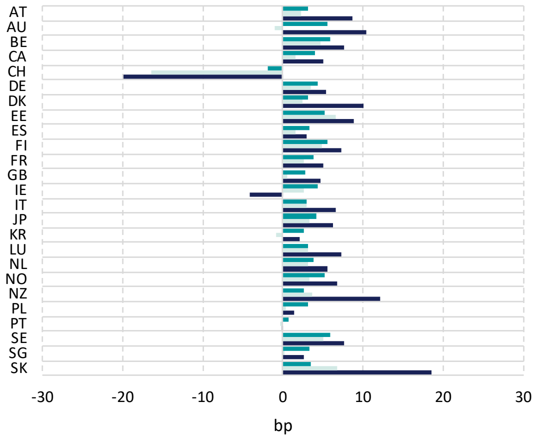


EUR benchmark volume (ESG) by type (in EURbn)

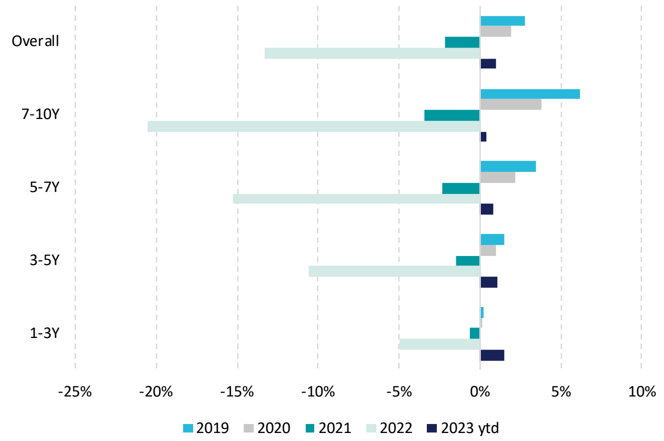


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

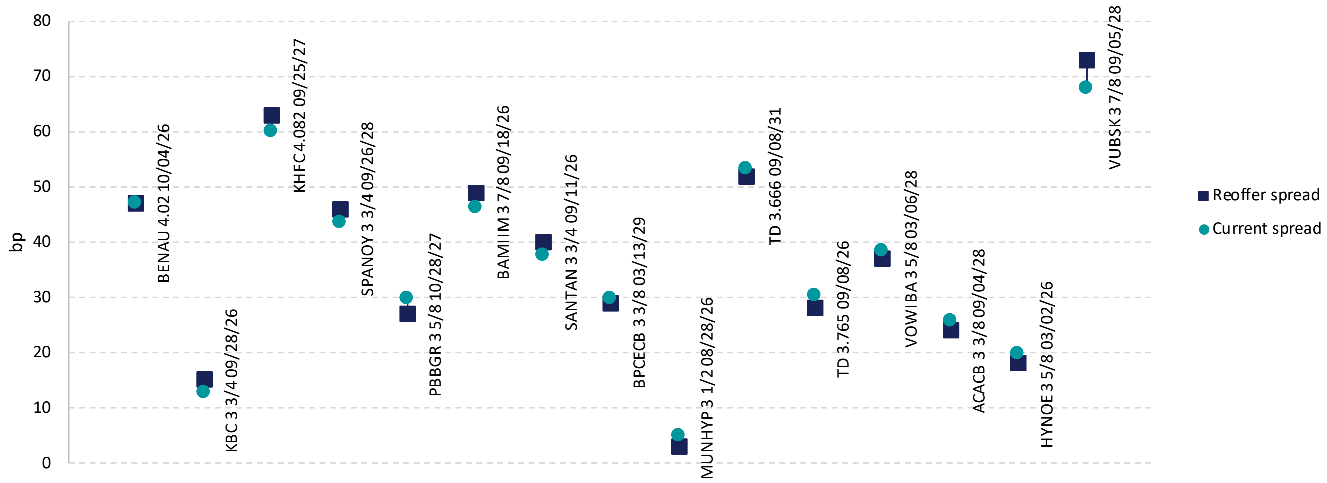
Spread development by country



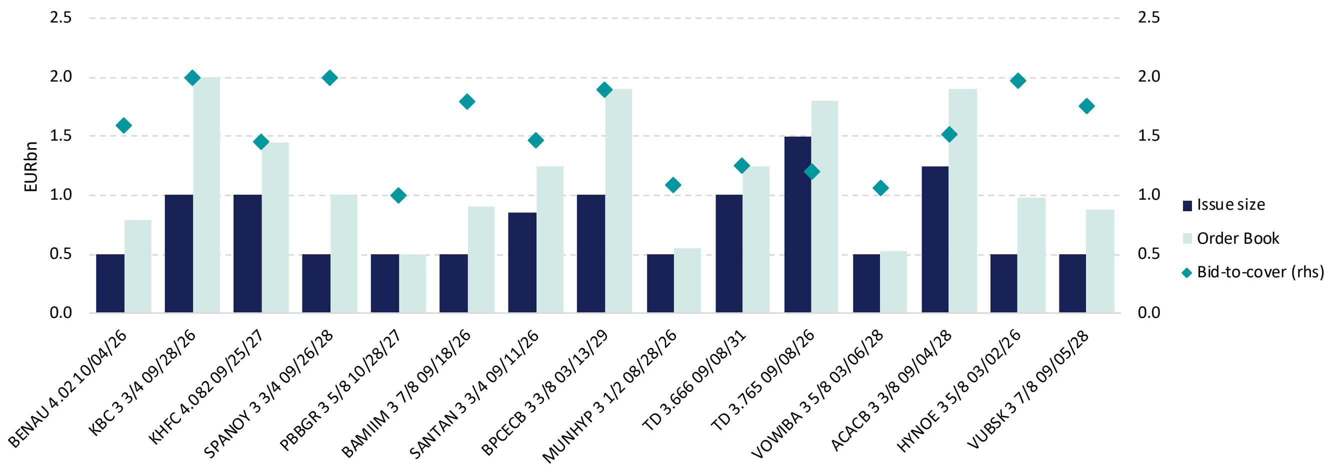
Covered bond performance (Total return)



Spread development (last 15 issues)



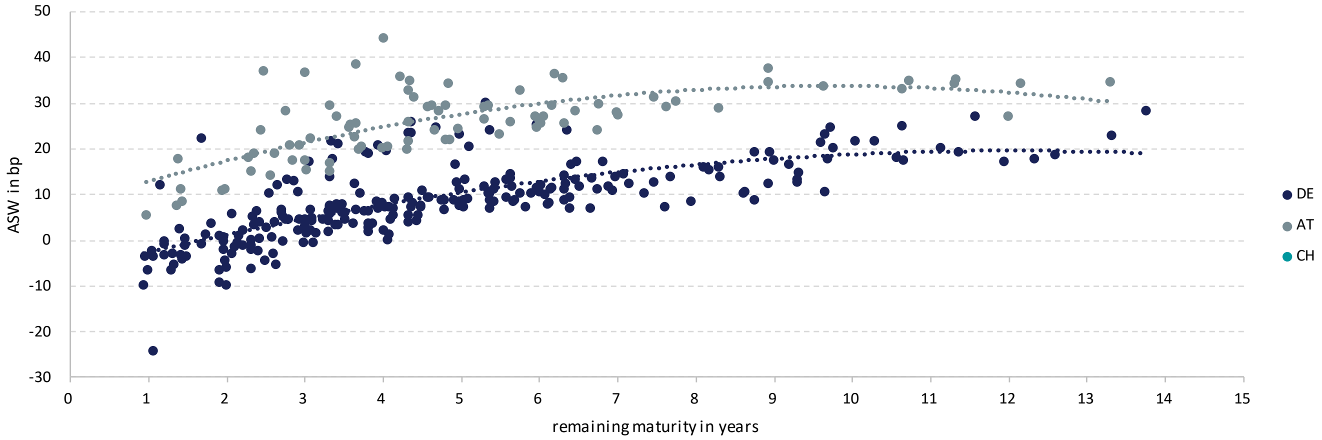
Order books (last 15 issues)



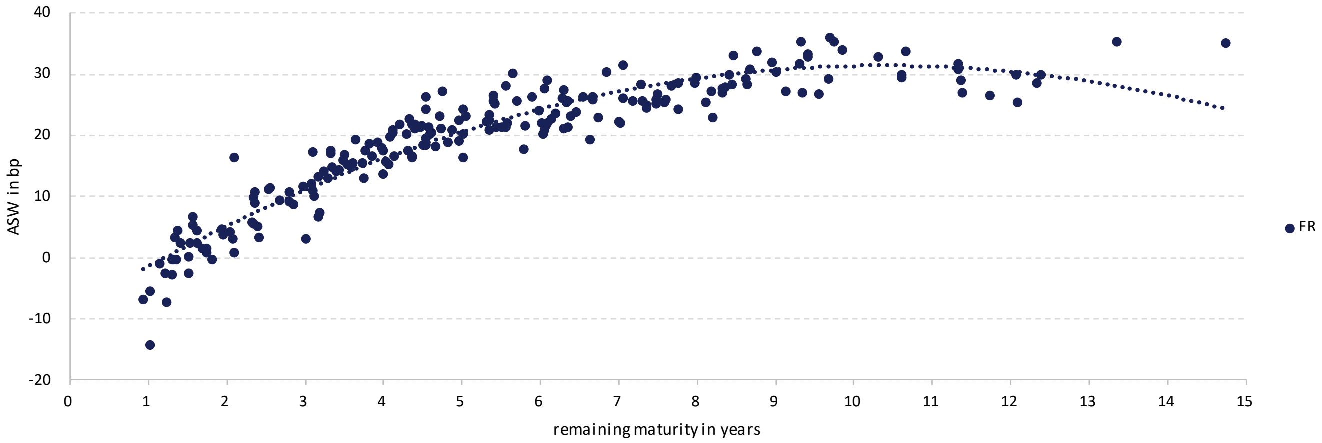
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

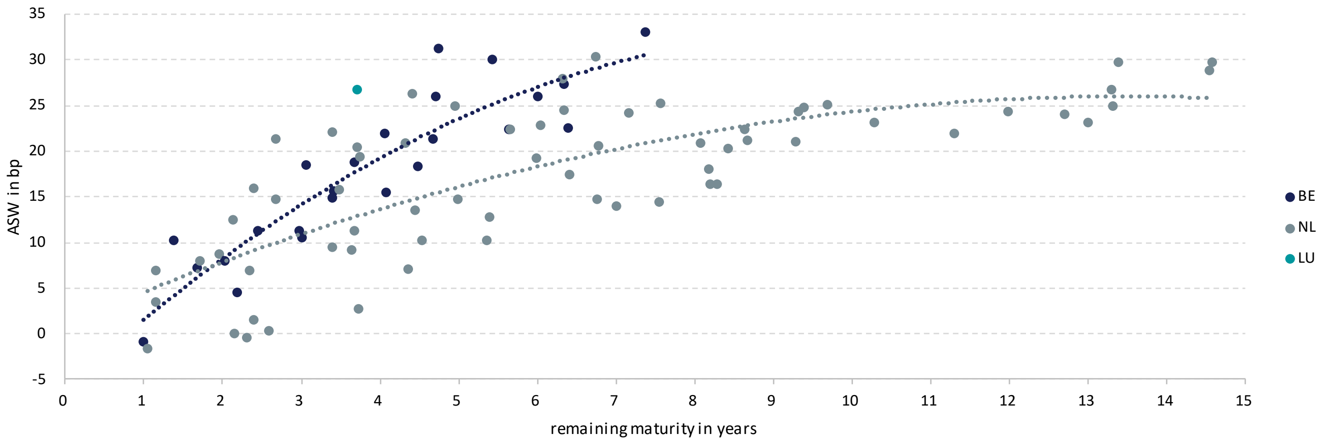
DACH



France

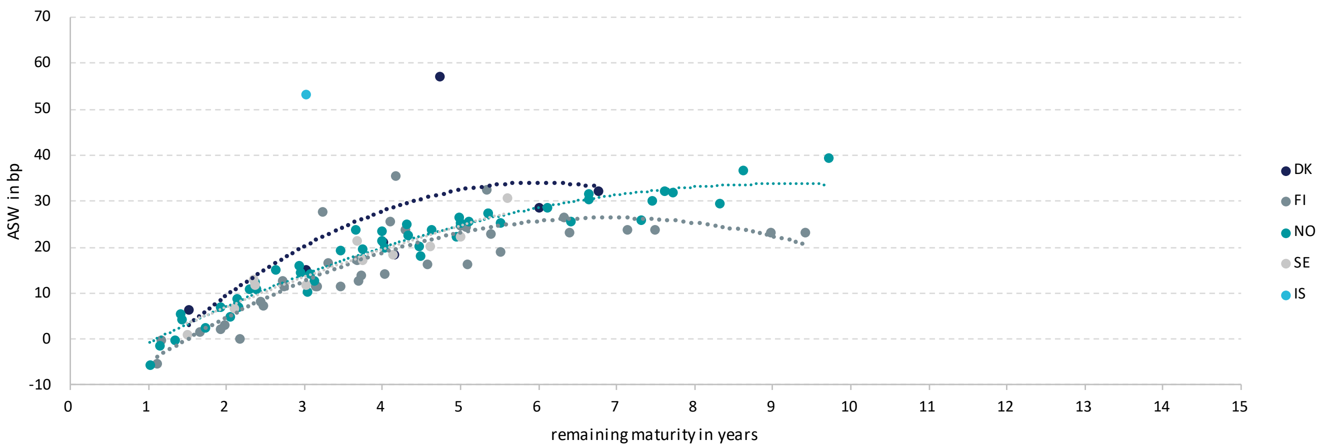


Benelux

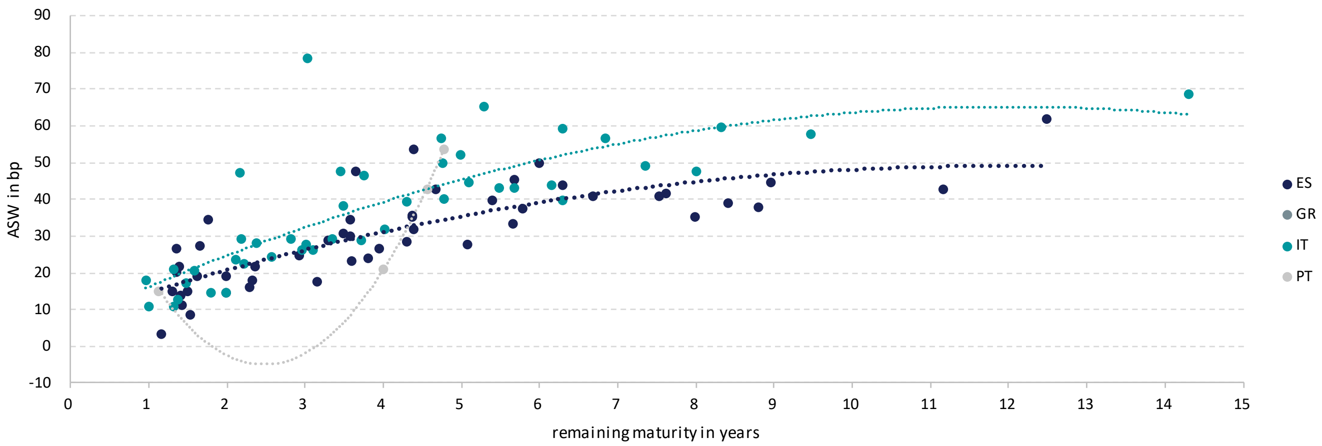


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

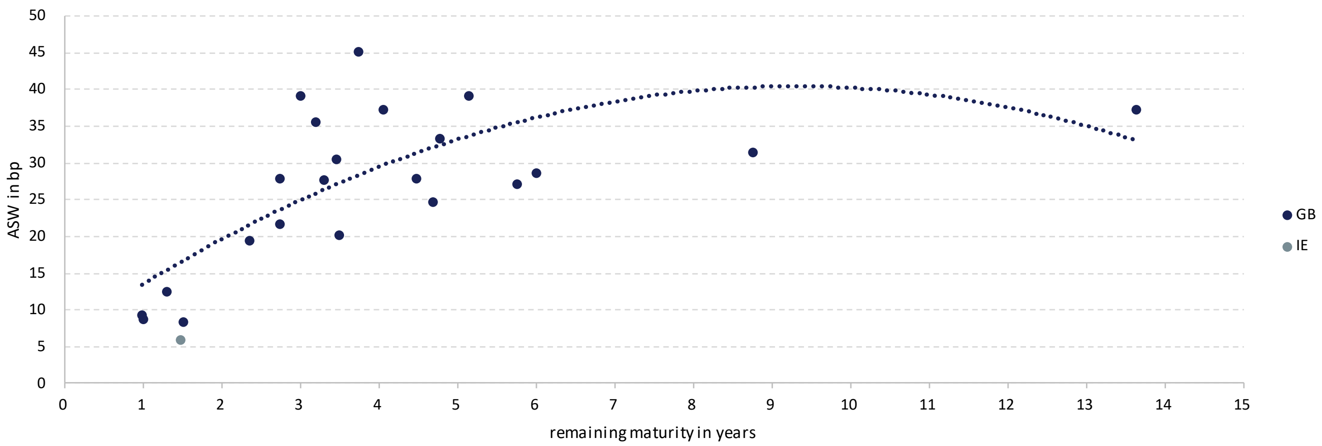
Nordics



Southern Europe

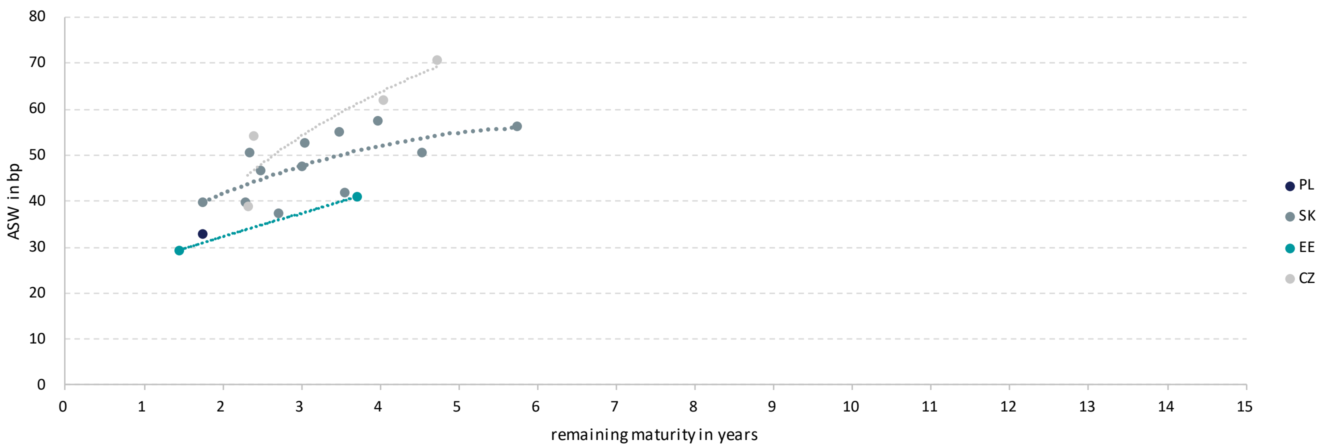


UK/IE

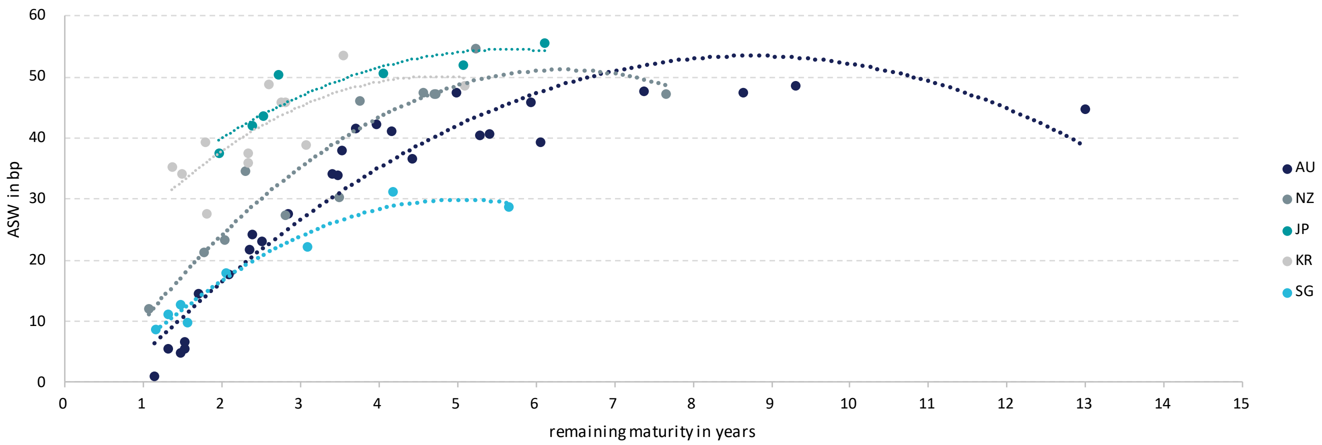


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

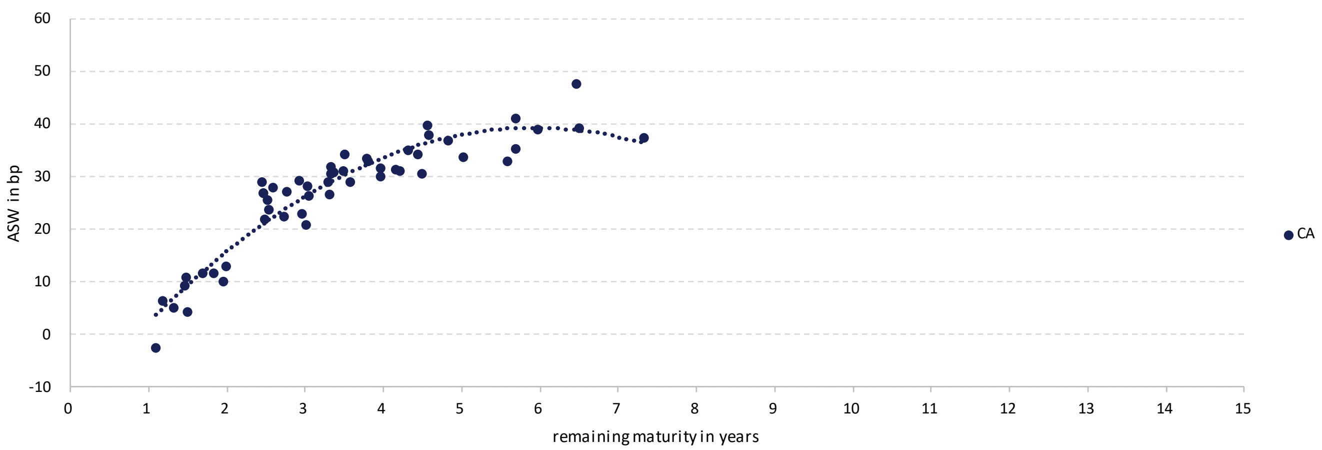
CEE



APAC



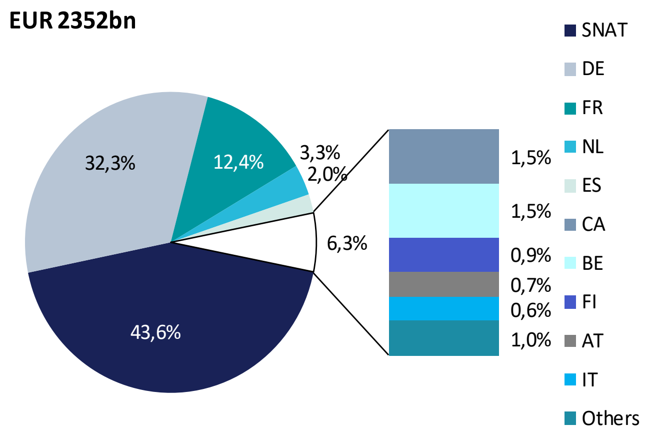
North America



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

Charts & Figures
SSA/Public Issuers

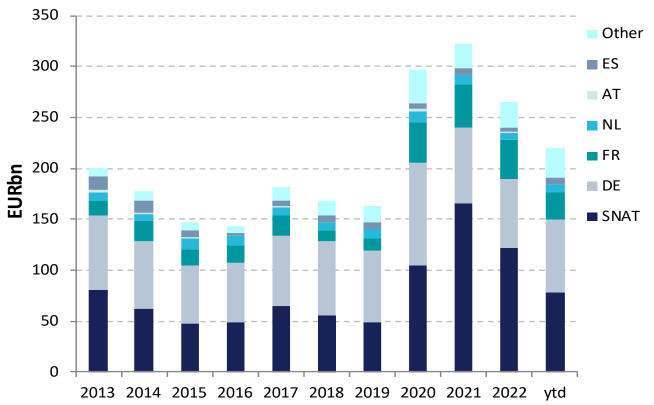
Outstanding volume (bmk)



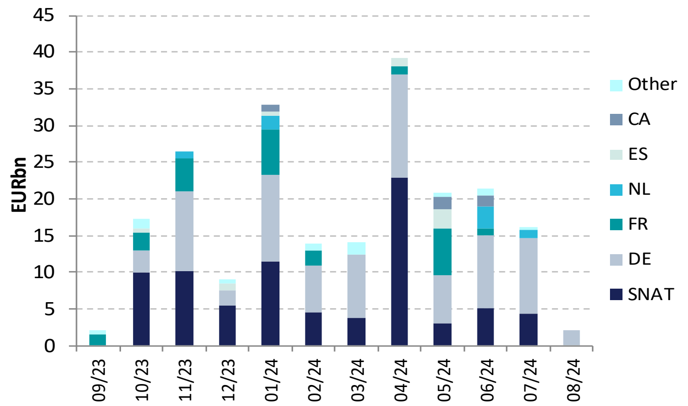
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	1.025,9	229	4,5	7,9
DE	760,5	567	1,3	6,1
FR	292,0	197	1,5	5,9
NL	78,0	68	1,1	6,7
ES	47,5	65	0,7	4,6
CA	35,7	25	1,4	4,3
BE	35,2	38	0,9	10,7
FI	22,2	24	0,9	4,9
AT	16,8	20	0,8	4,5
IT	15,0	19	0,8	4,5

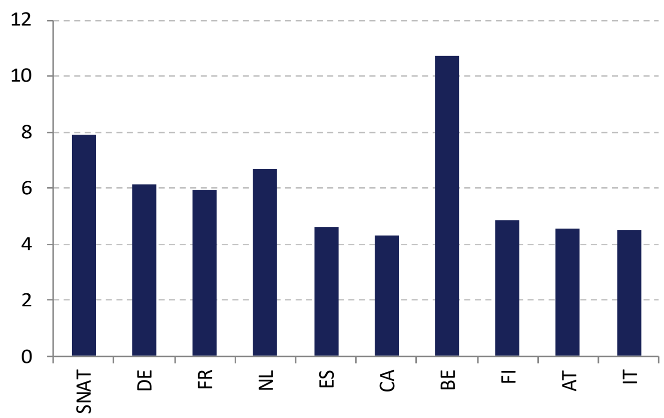
Issue volume by year (bmk)



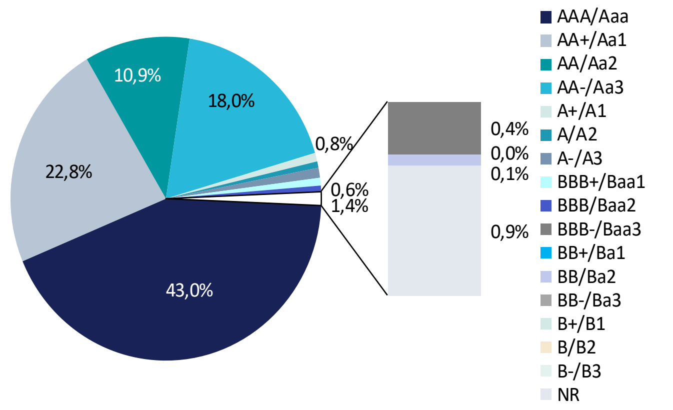
Maturities next 12 months (bmk)



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

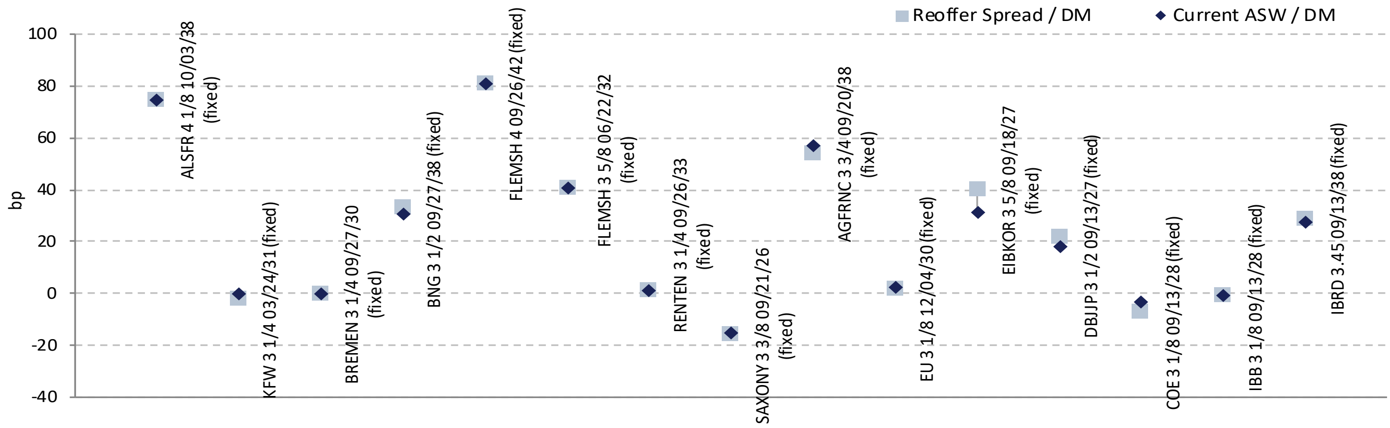


Rating distribution (vol. weighted)

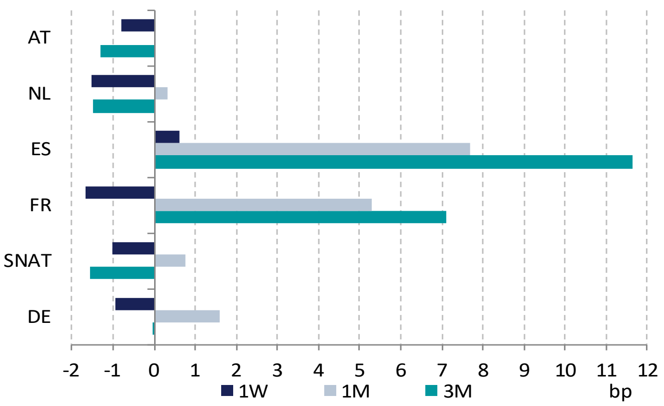


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

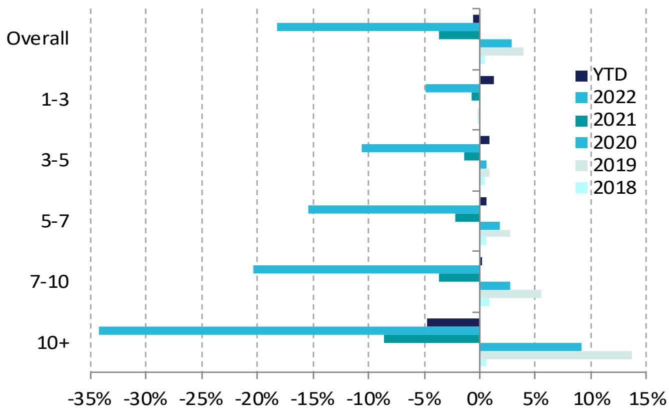
Spread development (last 15 issues)



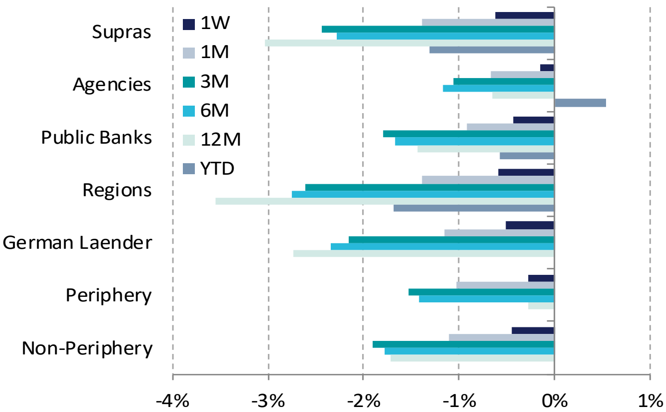
Spread development by country



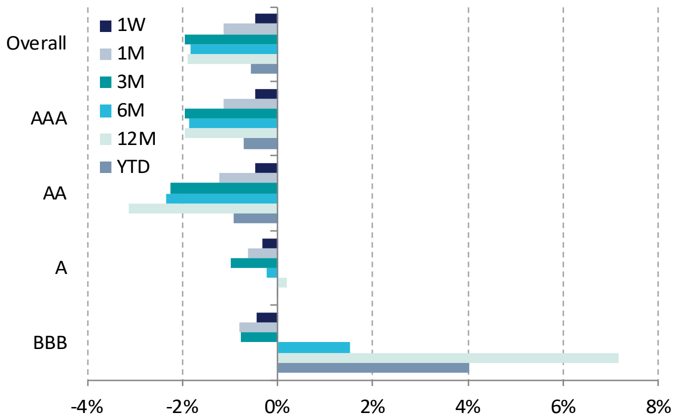
Performance (total return)



Performance (total return) by segments

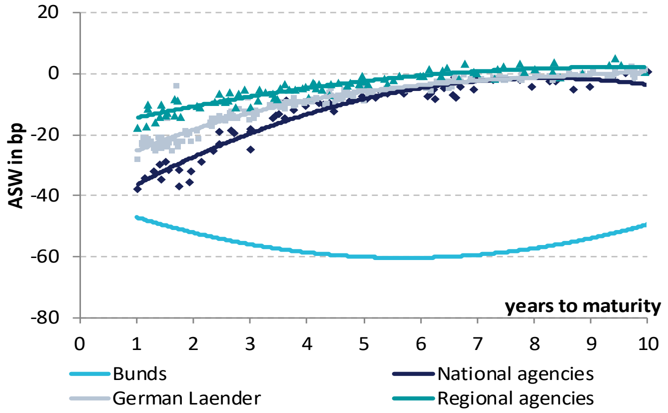


Performance (total return) by rating

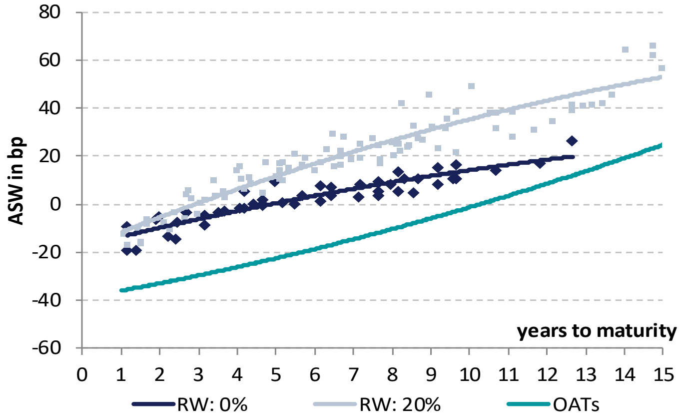


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

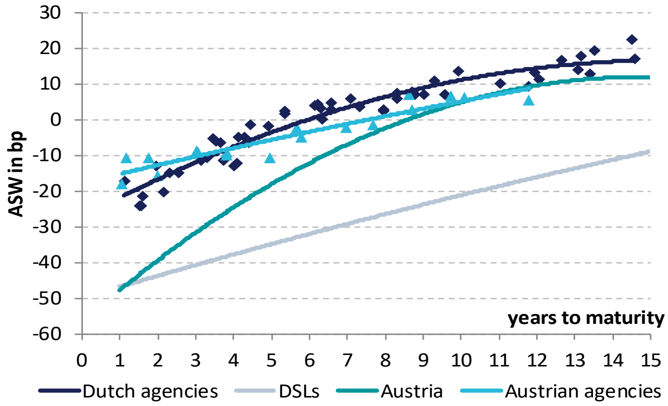
Germany (by segments)



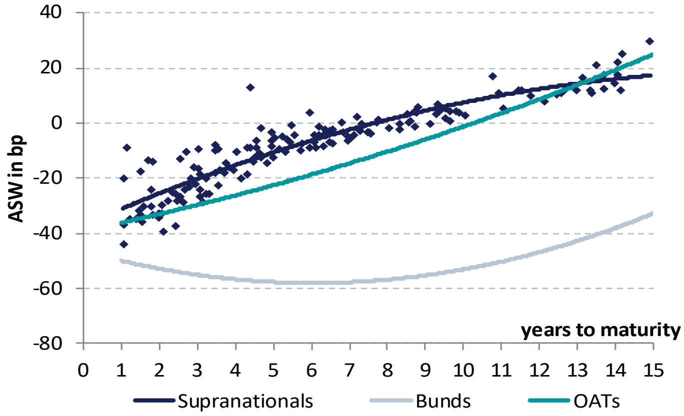
France (by risk weight)



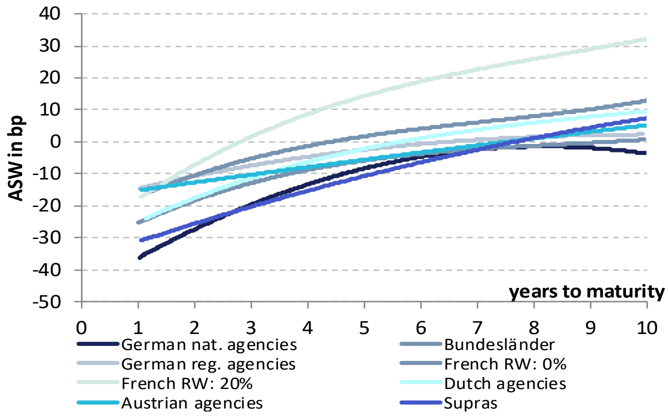
Netherlands & Austria



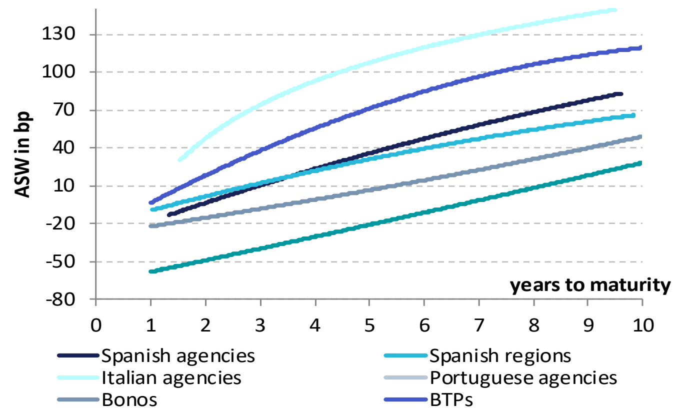
Supranationals



Core



Periphery



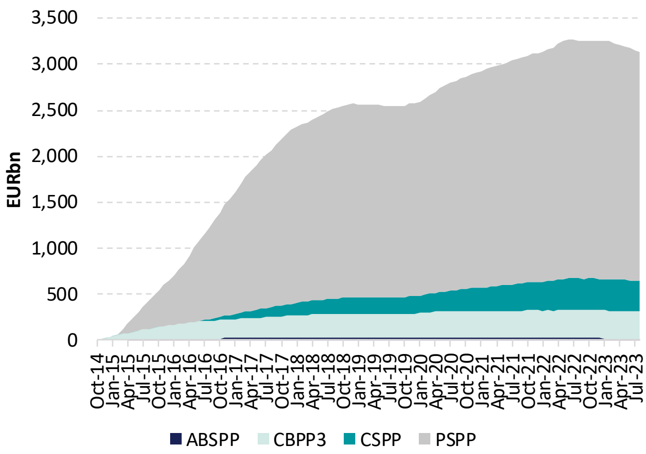
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

ECB tracker

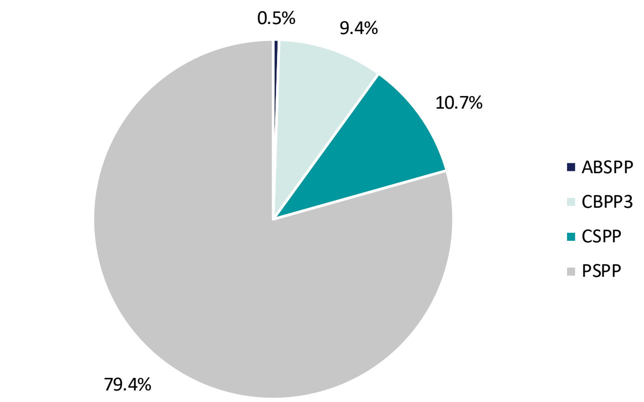
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Jul-23	16,851	295,503	335,724	2,504,498	3,152,576
Aug-23	16,441	295,503	334,738	2,487,900	3,134,582
Δ	-411	0	-986	-16,598	-17,995

Portfolio development

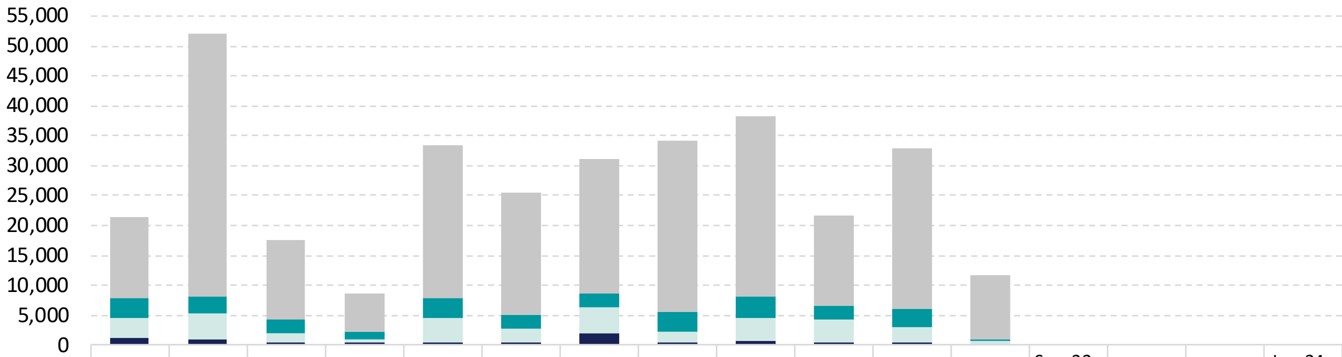


Portfolio structure



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

Expected monthly redemptions (in EURm)

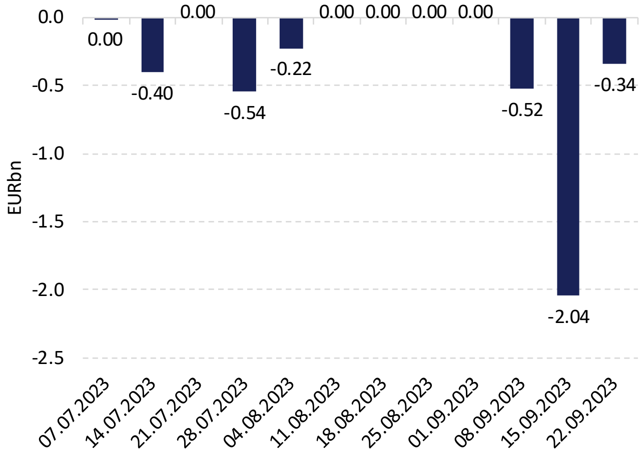


	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-23 - Aug-24	2022	2023	Jan-24 - Aug-24
APP	21,368	52,182	17,547	8,553	33,370	25,596	31,045	34,260	38,285	21,636	32,982	11,587	328,411	299,142	331,189	228,761
PSPP	13,436	44,186	13,277	6,336	25,524	20,470	22,413	28,712	30,194	14,974	26,881	10,533	256,936	228,585	255,019	179,701
CSPP	3,377	2,589	2,393	1,336	3,243	2,325	2,188	3,316	3,463	2,462	3,204	244	30,140	17,670	30,797	20,445
CBPP3	3,346	4,467	1,351	408	4,109	2,449	4,434	1,814	3,836	3,777	2,558	541	33,090	41,244	35,147	23,518
ABSPP	1,209	940	526	473	494	352	2,010	418	792	423	339	269	8,245	11,643	10,226	5,097

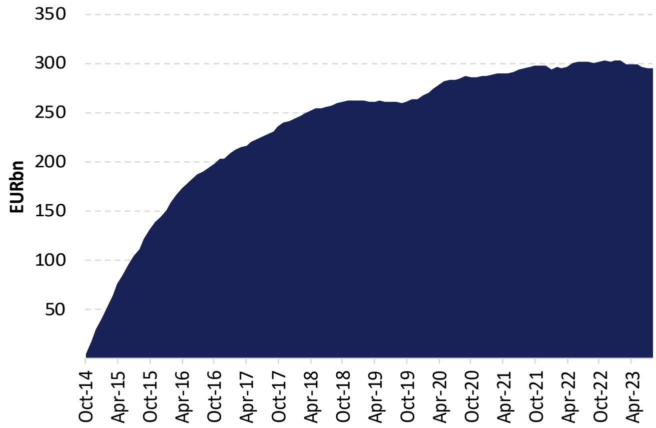
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

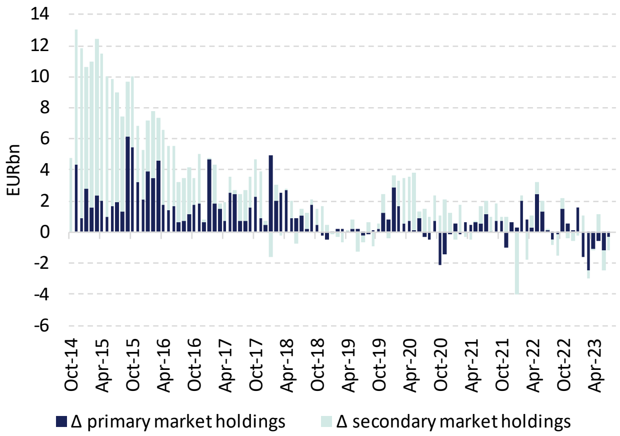
Weekly purchases



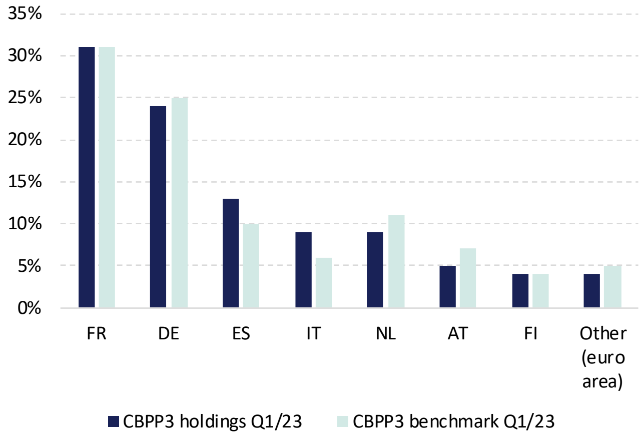
Development of CBPP3 volume



Change of primary and secondary market holdings

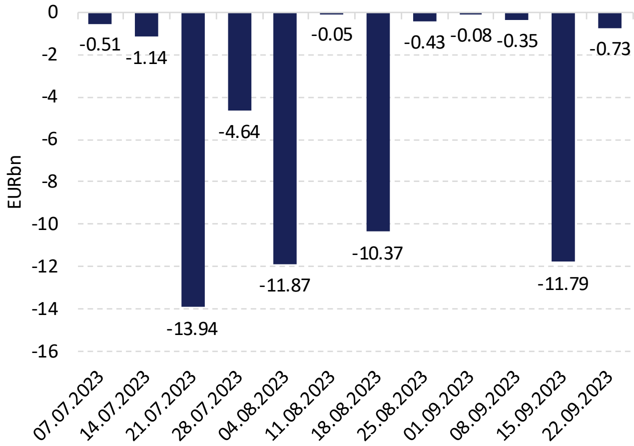


Distribution of CBPP3 by country of risk

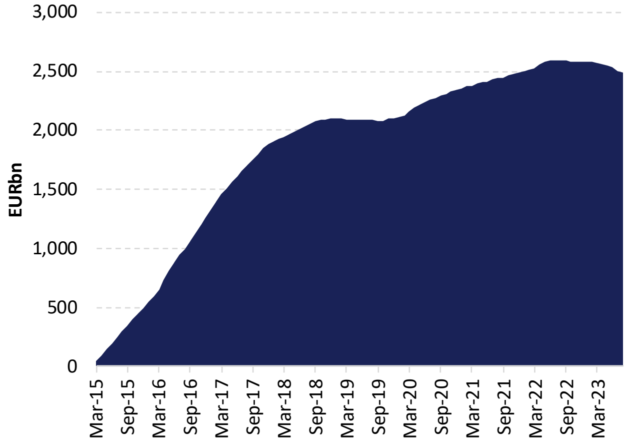


Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume

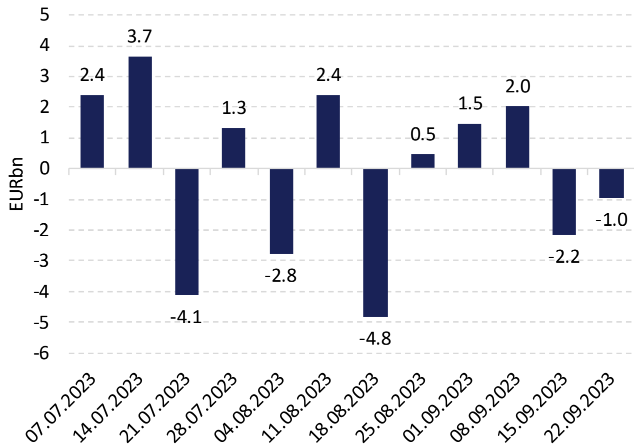


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

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	43,659	-419	2.6%	2.6%	0.0%	7.4	7.6
BE	56,468	653	3.3%	3.4%	0.1%	6.1	9.8
CY	2,387	50	0.2%	0.1%	0.0%	8.5	8.4
DE	397,585	-2,475	23.7%	23.9%	0.2%	6.7	7.0
EE	256	0	0.3%	0.0%	-0.2%	6.9	7.2
ES	191,589	-1,567	10.7%	11.5%	0.8%	7.3	7.4
FI	26,759	-695	1.7%	1.6%	0.0%	7.3	7.9
FR	296,673	-1,934	18.4%	17.9%	-0.5%	7.5	7.7
GR	37,979	424	2.2%	2.3%	0.1%	8.5	9.3
IE	25,413	176	1.5%	1.5%	0.0%	8.9	9.5
IT	293,834	3,169	15.3%	17.7%	2.4%	7.0	6.9
LT	3,235	-68	0.5%	0.2%	-0.3%	9.2	8.8
LU	1,845	14	0.3%	0.1%	-0.2%	6.1	8.4
LV	1,824	-154	0.4%	0.1%	-0.2%	8.0	7.6
MT	604	0	0.1%	0.0%	-0.1%	10.0	8.4
NL	79,687	340	5.3%	4.8%	-0.5%	7.8	9.1
PT	33,988	-102	2.1%	2.0%	-0.1%	7.0	7.5
SI	6,450	63	0.4%	0.4%	0.0%	8.6	9.0
SK	7,983	79	1.0%	0.5%	-0.5%	8.0	8.3
SNAT	152,090	2,002	10.0%	9.2%	-0.8%	10.0	9.0
Total / Avg.	**1,660,308**	**-443**	**100.0%**	**100.0%**	**0.0%**	**7.4**	**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

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Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
27/2023 ♦ 20 September	▪ Newcomer to the EUR benchmark segment: Bendigo and Adelaide Bank set to expand issuer base in Australia ▪ Teaser: Issuer Guide - Austrian Agencies 2023
26/2023 ♦ 13 September	▪ ECBC publishes annual statistics for 2022 ▪ Teaser: Issuer Guide - Dutch Agencies 2023
25/2023 ♦ 06 September	▪ Covered bond market on the growth path: OLB looks set to join the ranks of EUR benchmark issuers ▪ NORD/LB Issuer Guide German Laender 2023 published
24/2023 ♦ 19 July	▪ Banks in Europe: EBA Risk Dashboard in Q1 2023 ▪ ECB repo collateral rules and German Laender
23/2023 ♦ 12 July	▪ Covereds: Half-year review and outlook for the second half of 2023
22/2023 ♦ 28 June	▪ Special publication on LCR classification and risk weights: a (regulatory) overview of the EUR benchmark segment ▪ ESG bonds of German Laender – significant further development
21/2023 ♦ 21 June	▪ ESG covered bonds: a look at the supply side ▪ Increasing exposure of E-supras to Ukraine
20/2023 ♦ 14 June	▪ Moody's covered bond universe – an overview ▪ Beyond Bundeslaender: Spanish regions
19/2023 ♦ 07 June	▪ ECB Preview: ECB's 25th anniversary and is still going strong ▪ Focus on legal requirements for covered bonds
18/2023 ♦ 24 May	▪ Repayment structures on the covered bond market: an update ▪ Stability Council convenes for 27th meeting
17/2023 ♦ 17 May	▪ ESG update 2023 in the spotlight ▪ Development of the German property market ▪ Transparency requirements §28 PfandBG Q1/2023
16/2023 ♦ 10 May	▪ The ECB and the covered bond market: influences old and new ▪ Update: Joint Laender (Ticker: LANDER)
15/2023 ♦ 26 April	▪ ECB preview: caught in two minds? ▪ EBA Risk Dashboard paints solid picture of Q4 2022
14/2023 ♦ 19 April	▪ Lending in the Eurozone and Germany ▪ The French agency market – an overview
13/2023 ♦ 05 April	▪ Supply forecast requires no great adjustment ▪ Current risk weight of supranationals & agencies
12/2023 ♦ 29 March	▪ The Moody's covered bond universe – an overview ▪ NGEU: Green Bond Dashboard
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

Appendix
Publication overview

Covered Bonds:

- Issuer Guide Covered Bonds 2023
- Covered Bond Laws
- 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 Q2/2023 (quarterly update)
- Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

- Issuer Guide – German Laender 2023
- Issuer Guide – European Supranationals 2023
- Issuer Guide – French Agencies 2023
- Issuer Guide – German Agencies 2022
- Issuer Guide – Dutch Agencies 2022
- Beyond Bundeslaender: Belgium
- Beyond Bundeslaender: Greater Paris (IDF/VDP)
- Beyond Bundeslaender: Spanish regions

Fixed Income Specials:

- ESG-Update 2023
- ECB: This rate terminates here - 99.9% sure
- ECB preview: Knives out… It's edging-time
- ECB: From the bottom to the top time to stop? Nobody knows it
- ECB preview: About scrambling and hiking to the terminal rate

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