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Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

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Marketing communication (see disclaimer on the last pages)

Agenda

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NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Stefan Rahaus

Primary market ends January with a new record value

The month of January was brought to a close yesterday, on Tuesday, with the total volume of covered bonds issued in EUR benchmark format amounting to EUR 39.7bn. In relation to our issuance forecast of EUR 197.5bn across 2023 as a whole, a total of around 20% has therefore already been placed with investors. Including last Wednesday, a total of “only” EUR 2.75bn was placed last week, meaning that things have quietened down slightly on the primary market in comparison to recent weeks. This situation is also due to the fact that some issuers have now entered what is known as the “blackout period”. Issuers active in recent days include Achmea Bank from the Netherlands (ACHMEA; 7.0y; bid-to-cover ratio: 2.6x), Tatra Banka from Slovakia (TATSK; 3.0y; bid-to-cover ratio: 1.4x), Arkea Home Loans SFH from France (CMARK; 4.2y; bid-to-cover ratio: 1.9x) and the UK issuer Lloyds Bank (LLOYDS; 3.0y; bid-to-cover ratio: 4.0x). The Tatra Banka deal is particularly noteworthy as it was this issuer’s first EUR benchmark deal (having previously been active in the EUR sub-benchmark segment) in addition to being the first EUR benchmark covered bond issued from the jurisdiction of Slovakia this year and, at the same time, the first from the CEE region as well. We have taken a closer look at the markets and issuers of Slovakia and Czech Republic in an article entitled “Focus on covered bond jurisdictions: Slovakia and Czech Republic in the spotlight” in this present edition of our weekly publication. Also noteworthy was the new issue from Lloyds Bank. This is not only due to the fact that this is an issuer from the UK and covered bond deals from this third country have gained slightly in rarity value since Brexit, but also because the bid-to-cover ratio of 4.0x means that this deal can be regarded as a real success. The new issue premium amounted to four basis points, which in relation to the deals placed over the past seven days places this deal towards the lower end. For Lloyds, this deal was its first publicly placed EUR benchmark since 2019 and the first from any UK issuer since September 2022. Although the classification of UK covered bonds within the framework of LCR management is still unclear, banks were among the largest investors with a share of 61% in this transaction. Geographically, 33% of the issue went to investors from Germany and Austria, with investors from the UK and Ireland accounting for a share of 29%. After this successful performance by a “national champion”, it is to be expected that other, smaller names from the UK will now follow suit to issue EUR benchmark covered bonds of their own. Sparkasse Hannover (SSPHAN) successfully ventured onto the EUR sub-benchmark segment last Monday with a deal worth EUR 250m. The bond with a term to maturity of five years kicked off the marketing phase with guidance in the area of ms +12bp. An order book totalling EUR 625m allowed the pricing to be fixed with a final spread of ms +8bp. According to market reports, the ECB was actively involved as an investor in this deal with an unchanged order rate of 20%.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Lloyds Bank	GB	26.01.	XS2582348046	3.0y	1.00bn	ms +24bp	AAA / Aaa / -	-
Arkea Home Loans SFH	FR	25.01.	FR001400FJM4	4.2y	0.75bn	ms +19bp	AAA / Aaa / -	-
Achmea Bank	NL	25.01.	XS2582112947	7.0y	0.50bn	ms +29bp	- / - / AAA	-
Tatra Banka	SK	25.01.	SK4000022430	3.0y	0.50bn	ms +48bp	- / Aaa / -	-

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

Secondary market: new baseline level established?

Although the wave of new issuances on the primary market has diminished somewhat, the fresh supply has been easily absorbed by the market and customer interest has been high, with a focus on deals of up to five years. This is reflected in continued high oversubscription ratios and post-pricing performance. On the secondary market, new issuances have tightened by two to three basis points on average. The new deal from Lloyds Bank highlighted in the preceding paragraph actually narrowed by more than ten basis points compared with the re-offer level. The new issue premium was recently back in single-digit territory, but still amounted to 4bp at least. In this context, the sub-benchmark deal issued by Sparkasse Hannover was a genuine outlier with a NIP of -2bp. On the secondary market, real money investors are still on the hunt for short-dated bonds, albeit with a slightly longer duration and a continued preference for bonds with current coupons. Bonds from Scandinavia with maturities of up to five years were also bought last week, since this region had underperformed due to the scarcity of new issues. Central banks continued to be active as buyers on the primary market, but also sought both new and old bonds on the secondary market. The spreads on the secondary market have stabilised and it now seems that the repricing that has taken place over recent weeks has now been brought to a close, with the market now having found a new baseline level. In addition to the short end, it can be assumed that longer-dated bonds (e.g. 10y) will be well received by the market.

DBRS European Covered Bond Outlook 2023: stable ratings in a high interest rate environment

Towards the end of 2022, we presented the outlooks for the covered bond market issued by the rating agencies S&P, Fitch and Moody's. In the following paragraph, we shall take a look at the outlook for 2023 from DBRS Morningstar, which was published at the start of January. According to DBRS, rising interest rates and high levels of inflation will make mortgage repayments more difficult. Based on this, the analysts at DBRS conclude that the credit quality of the mortgage loans in the cover pools will deteriorate slightly, but continue to see robust development of covered bond programmes due to their dual-recourse character and the implementation of the EU covered bond directive. In this context, the analysts point in particular to the 180-day liquidity buffer and asset coverage tests, which offer an incentive to swap lower-quality collateral in the cover pools. Rising interest rates will affect covered bond programmes to varying degrees, depending on the structure of the interest rates (fixed or variable) of the cover assets or the covered bonds issued. However, the experts at DBRS anticipate that, where necessary, rising interest rate risks will be offset by additional collateral, i.e. higher overcollateralisation. According to DBRS, the total issuance volume in 2023 will stagnate or slightly decrease compared with the record values seen in 2022, although covered bonds will again play a key role in the financing of pending TLTRO III repayments. Furthermore, DBRS assumes that, as usual, some covered bond issuances will be retained for repo purposes. The implementation of the EU Covered Bond Directive will have a neutral to positive impact on covered bond ratings in 2023 and will help to ensure that the proportion of soft-bullet structures continues to grow at the expense of conditional pass-through (CPT) structures.

Fitch does not believe that rising interest rates pose a risk to covered bond ratings

In a comment piece connected to the publication of the “Covered Bonds Surveillance Snapshot - 4Q22” report, the experts from the rating agency Fitch come to conclusions similar to those reached by the rating agency DBRS Morningstar: rising interest rates will exacerbate interest rate mismatches between assets and liabilities in unsecured covered bond programmes, although high overcollateralisation (OC) buffers and issuer ratings will support the neutral outlook for the covered bond sector in 2023 that was first published in December 2022. The interest rate margin could decline for unhedged programmes where the interest rate on assets is unable to keep pace with the increased cost of covered bond funding. This would lead to a larger asset-liability mismatch loss component in the break-even OC determined by Fitch for covered bond ratings. As such, Fitch is therefore planning to include additional fields in its quarterly Covered Bonds Surveillance Snapshot dataset, with the aim of facilitating interest rate risk monitoring. As at the end of Q4 2022, the nominal OC of the covered bond programmes for which the mismatch loss determines the break-even OC calculated by Fitch for the rating was on average seven times higher than the break-even OC required for the rating.

Fitch asks for feedback on “Climate Policy Risks for Residential Real Estate” discussion paper

The rating agency Fitch is seeking feedback from market players on the potential inclusion of energy efficiency considerations in the agency’s analysis concerning RMBS and covered bonds. In a new report entitled “Climate-Policy Risk for Residential Homes: Discussion Paper”, Fitch outlines how the availability and transparency of data on residential energy efficiency could affect the underlying assumptions for the sale of residential real estate assets in RMBS transactions and covered bond programmes. Residential property buyers are increasingly factoring in energy efficiency considerations when purchasing homes. Emissions data and the general physical properties of the climate resistance of individual buildings will also play a role in the realisation of collateral in the cover pools of covered bonds. Although the availability and transparency of data remains a challenge, Fitch sees the adjustments to the regulatory framework in many countries as a positive development in the direction of broader adoption and availability of energy performance certificate data (e.g. Energy Performance Certificate; EPC). Fitch believes that energy efficiency is becoming an increasingly important consideration when buying a home for borrowers in a number of countries, both from an environmental and cost of living perspective. In countries where the use of EPCs is more common, data suggests that borrowers are often willing to pay a premium for properties with high energy efficiency ratings (e.g. EPC categories A and B). Conversely, for properties with the worst energy-efficiency ratings (e.g. EPC categories F and G), discounts tend to be offered on the sale price. Fitch is now asking for feedback from market players in order to take this topic into greater account for future rating analysis.

Bank Lending Survey reveals tightening of credit standards across all categories

Yesterday, the ECB published its quarterly bank lending survey. A total of 151 banks in the eurozone were surveyed between the middle of December and 10 January 2023, with a response rate of 99%. According to the survey for January 2023, credit standards (internal guidelines or credit approval criteria) for loans to companies continued to tighten significantly in Q4 2022. In retrospect, it was the strongest net tightening of credit standards since the sovereign debt crisis struck the eurozone back in 2011. Lending standards in the area of private real estate and consumer loans have also tightened significantly. In terms of additional factors in the corporate sector, the banks indicated that strains also exist in terms of increased risk perception in relation to economic prospects, the sector or company-specific situation, decreasing risk tolerance and higher financing costs. For the first quarter of 2023, too, the banks surveyed anticipate a further net tightening of credit standards for corporate loans and the private sector (housing loans and consumer loans). However, demand for housing loans also fell sharply due to higher interest rates, declin-ing consumer confidence and the deteriorating outlook in relation to the property mar-ket. In addition to higher interest rates for private and commercial financing, bank mar-gins were also on the rise. Although banks found that access to retail funding and securiti-sations was slightly more restricted in the fourth quarter of 2022, access to debt securities and the money market improved. In addition, eurozone banks reported that their capital positions had strengthened in 2022 in response to new regulatory or supervisory re-quirements, albeit to a lesser extent than in 2021.

Market overview
SSA/Public Issuers

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

What exactly is the ECB key all about?

As part of our weekly publication, we have consistently, albeit intermittently, reported on the Eurosystem's purchase programmes since 2015 and also provide weekly updates on purchasing behaviour and reinvestment volumes on the basis of an adjusted ECB capital key in the appendix. Asset purchases under the ECB programmes are supposed to be guided by this Eurosystem parameter, a key which should be observed as closely as possible. Some market players pay meticulous attention to compliance with the amounts to be purchased, although we take a more relaxed view for this "breathing" programme. However, any deviations only tend to relate to the figures falling after the decimal point. The capital key includes only the national central banks of the Eurozone. But what does it consist of? The capital of the ECB comes from the national central banks (NCBs) of all EU Member States. In 2023, it is unchanged at EUR 10.8bn (specifically: EUR 10,825,007,069.61). The NCBs' shares in this capital are calculated using a key which reflects the respective country's share in the total population and gross domestic product of the EU, with these two determinants being afforded equal weighting in the calculation. The ECB adjusts the shares every five years and whenever there is a change in the number of NCBs that contribute to the ECB's capital. These NCBs are those whose countries are Member States of the EU. The adjustments are made on the basis of data provided by the European Commission. The latest adjustment took place on 1 February 2020 following the withdrawal of the United Kingdom from the EU. The capital paid to the ECB by the non-EMU NCBs amounts to exactly EUR 73,117,104.33. This is but a fraction of the fully paid-in shares of eurozone NCBs to the capital of the ECB, which amount to EUR 8.9bn overall (specifically: EUR 8,875,217,621.22). The amount breaks down as follows:

Capital key (in %)

Belgium	2.9630	**Lithuania**	0.4707
Germany	21.4394	**Luxembourg**	0.2679
Estonia	0.2291	**Malta**	0.0853
Ireland	1.3772	**The Netherlands**	4.7662
Greece	2.0117	**Austria**	2.3804
Spain	9.6981	**Portugal**	1.9035
France	16.6108	**Slovenia**	0.3916
Croatia	0.6595	**Slovakia**	0.9314
Italy	13.8165	**Finland**	1.4939
Cyprus	0.1750		
Latvia	0.3169	**Overall**	81.9881

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

Why is there an adjusted capital key?

To begin, some essential information from the ECB: since the start of Stage Three of Economic and Monetary Union on 1 January 1999 the capital key has changed eight times: in the years 2004, 2009, 2014 and 2019, a five-yearly update was made on 1 January in each case. Additional changes were made on 1 May 2004 when the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia joined the EU, on 1 January 2007 when Bulgaria and Romania joined the EU, on 1 July 2013 when Croatia joined the EU and on 1 February 2020, following Brexit. Croatia's central bank (Hrvatska narodna banka – HNB), which is the reason we are reporting on the capital key in greater detail this week, became a member of the Eurosystem following the entry of Croatia into the Eurozone on 1 January 2023. On that date, the HNB therefore paid up the remainder of its subscribed capital to the ECB. A final general remark: the subscriptions from Eurozone NCBs increased as a result of the Bank of England's withdrawal from the European System of Central Banks (ESCB) (i.e. prior to the entry of Croatia into the Eurozone). This additional amount was divided into two annual instalments. The first of these two instalments was paid on 29 December 2021 and the second one on 28 December 2022. Attentive readers will of course have spotted something straight away: the above total is 18.01% short of 100%. This is where the other EU countries come in to play, i.e. those not part of the Eurozone, namely Bulgaria, Czech Republic, Denmark, Hungary, Poland, Romania and Sweden. Small but crucial addendum: the seven remaining non-EMU NCBs in the EU – following Croatia's entry – are required to contribute to the operational costs incurred by the ECB in relation to their participation in the ESCB. They do so by paying up a small percentage of their share in the ECB's subscribed capital. Since 29 December 2010, their contributions have represented 3.75% of their total share in the subscribed capital. The non-EMU NCBs are not entitled to receive any share of the distributable profits of the ECB, nor are they liable to fund any losses of the ECB. With respect of the APP, it must also be taken into account that Greece cannot be purchased and that purchases of supranational bonds can be conducted at an unchanged 10% purchase share. Consequently, the above breakdown of percentages must be reallocated to 100%. Greece can, however, be purchased under the PEPP, meaning that the target figures and capital keys differ again for this programme. As of yet, Croatia has not made an appearance in the course of net purchases or reinvestments. In February, we will tailor the content of our appendix to include Croatia.

Distribution of the ECB's profits and losses

The net profits and losses of the ECB are allocated among the EMU NCBs in accordance with Article 33 of the Statute of the ESCB and of the ECB. The net profit of the ECB shall be transferred in the following order: an amount to be determined by the Governing Council, which may not exceed 20% of the net profit, shall be transferred to the general reserve fund subject to a limit equal to 100% of the capital; the remaining net profit shall be distributed to the shareholders of the ECB in proportion with their paid-up shares. In the event of a loss incurred by the ECB, the shortfall may be offset against the general reserve fund of the ECB and, if necessary, following a decision by the Governing Council, against the monetary income of the relevant financial year in proportion and up to the amounts allocated to the national central banks. We would not be surprised by a loss of some EUR 100bn (rounded up) in 2022. For the very much smaller Swiss National Bank, this figure was apparently CHF 120bn in 2022. A considerable loss is likely to be reported in 2023 as well.

Nordic Investment Bank: funding target for 2023

For the Nordic Investment Bank (ticker: NIB), 2022 was a record year on the capital market: EUR 9.59bn was raised – an upward correction of the planned funding volume by EUR 2bn was required over the course of the year. The NIB is responsible for two major public transactions in 2023 thus far: a GBP 600m bond and a EUR 500m sustainability bond, which we commented on last week. For the year as a whole, the supranational issuer is planning a volume of EUR 7.5-8.5bn, with around 70% (approx. EUR 5.6bn) expected to be raised before the summer holidays on account of internal liquidity requirements. Of this, around EUR 1.6bn is already home and hosed. Like last year, the NIB is planning to place two USD benchmark bonds on the market. The US dollar became the most important currency in the funding mix towards the end of 2022: 37.2% of outstanding securities were in USD, while the 15.1% share of pound sterling was just ahead of euro, with 15%. The NIB Environmental Bonds (NEB) will once again be extremely important in 2023. To date, proceeds of EUR 7.3bn have been raised under the NEB framework. The NIB will publish its Impact Report on 28 February.

Investitionsbank Schleswig-Holstein: Fitch confirms top rating of AAA

Last Thursday, Fitch affirmed its assessment of Investitionsbank Schleswig-Holstein (ticker: IBBSH), maintaining its top rating of AAA with a stable outlook. The ratings agency justified this rating on account of the shareholder structure. Since the federal state of Schleswig-Holstein is the bank's sole owner (and explicitly guarantees its liabilities), the IBBSH rating is equated with that of the Bundesland itself. Laender ratings are also indirectly linked to the German sovereign ratings on the back of an extensive financial equalisation system among the Laender and the solidarity principle.

L-Bank: sustainability strategy

The promotional bank of Baden-Wuerttemberg, L-Bank (ticker: LBANK), started the year with a new comprehensive sustainability strategy to more strongly align its promotional business, capital market activities and banking operations with the requirements of sustainable development. To this end, L-Bank has created six overarching sustainability goals and a new interdisciplinary "Sustainable Finance" core team. Summarising the goals, L-Bank CEO Edith Weymayr explains: "Our aim is to increasingly integrate sustainability aspects into our operational lending business, review our capital market activities and risk management under sustainability considerations and develop our corporate culture and environmental balance in a sustainable way." According to L-Bank, promotional banks contribute to sustainable structural change. Through funding activities and investment decisions, they support sustainable structural change and thereby influence the direction in which the economy and society develop. At the same time, Weymayr said that the requirements of the EU, the German federal government and regional government of Baden-Wuerttemberg – including the Green Deal, the EU's Taxonomy Regulation and the climate protection goals at Bundesland level – provide a binding mandate for action. In future, the new core team will drive forward the integration of sustainability aspects in lending business, capital market activities and risk management. With additional personnel, L-Bank will be able to ensure the monitoring of and compliance with the Bank's comprehensive reporting obligations with regard to ESG criteria in the banking and promotional business.

Primary market

Even with the ECB key interest rate meeting on the horizon next Thursday, the primary market is still a hive of activity. We saw six bond placements from four different issuers with a total volume of EUR 9bn. First off the mark was Île-de-France Mobilités (ticker: IDFMOB), the organisation responsible for controlling and coordinating the different transport companies that operate the public transport network in Paris. Its dual tranche – consisting of two green bonds with a volume of EUR 500m each and maturities of 10 and 20 years respectively – was placed at OAT +49bp (10y, guidance: OAT +52bp area; order book: EUR 2.6bn) and OAT +54bp (20y, guidance: OAT +57bp area, order book: EUR 2.4bn). North Rhine-Westphalia (ticker: NRW) also approached investors with a dual tranche. With a total volume of EUR 5bn, this was the largest new issue in terms of volume in the trading week under review. The transaction included one 9y bond with a volume of EUR 2.5bn, which was priced at ms +2bp (guidance: ms +4bp area). During the marketing phase, the order book amounted to no less than EUR 8.5bn. However, the bond with a 30-year maturity – and the same volume – topped that order book, with EUR 10.5bn ultimately in the pot. The bond had been priced at ms +68bp and therefore also narrowed by two basis points versus the guidance in the region of ms +70bp. The French promotional bank Bpifrance – under its new arranged ticker BPIFRA instead of former OSEOFI – also found a funding window and placed a EUR 1bn bond with a term to maturity of just under seven years at OAT +45bp (guidance: OAT +47bp area). With an order book of EUR 2bn, the bid-to-cover ratio was 2.0x. On Tuesday, Hesse also placed its first EUR benchmark bond of the year: EUR 2bn with a maturity of 10 years changed hands at ms -1bp (guidance: ms +1bp area). Given an order book of EUR 4.6bn, the bid-to-cover ratio of the deal was therefore 2.3x. In our last edition, we also referred to the EU bond auction and can now comment on the results in this week's edition: In total, two bonds were tapped. First, an additional sum of EUR 1.8bn flowed into EU 2% 10/04/2027, bringing the new outstanding volume of the bond to EUR 11.065bn. The bid total for this was EUR 4.685bn. In addition, EU 1% 07/06/2032 was increased by EUR 1.765bn to a total of EUR 15.496bn (volume of bids: EUR 3.983bn). Since we also like to look at digital bonds, we will conclude by drawing attention to the latest transaction from the European Investment Bank (ticker: EIB). While the GBP 50m bond with a maturity of two years is not included in our coverage, we would like to mention it here: it is the EIB's first digital bond with a variable coupon. The payment is made by smart contract to the respective owners. To date, the EIB has therefore issued three digital bonds in total. More will certainly follow – also from other issuers!

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
HESSEN	DE	30.01.	DE000A1RQEH3	9.9y	2.00bn	ms -1bp	- / - / AA+	-
BPIFRA	FR	25.01.	FR001400FKA7	6.8y	1.00bn	ms +13bp	AA / Aa2 / -	-
NRW	DE	24.01.	DE000NRW0NX1	29.9y	2.50bn	ms +68bp	AAA / Aa1 / AA	-
NRW	DE	24.01.	DE000NRW0NW3	8.9y	2.50bn	ms +2bp	AAA / Aa1 / AA	-
IDFMOB	FR	24.01.	FR001400FIN4	20.3y	0.50bn	ms +86bp	AA- / - / -	X
IDFMOB	FR	24.01.	FR001400FIM6	10.0y	0.50bn	ms +31bp	AA- / - / -	X

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

Covered Bonds
Focus on covered bond jurisdictions: Canada in the spotlight

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

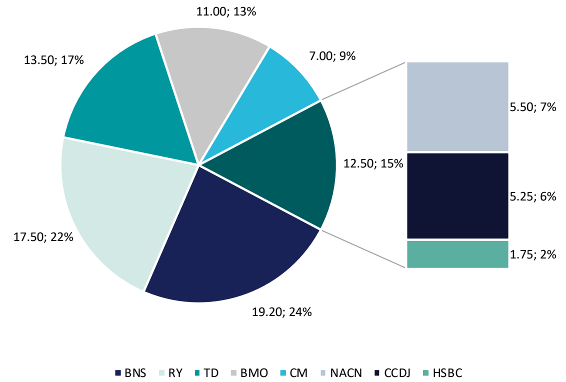
Covered bond market – Canada: third largest market for EUR benchmarks

In our weekly publication, we regularly take a closer look at specific covered bond markets. In this week's issue, our focus is on the established sub-market for EUR benchmark deals from Canada. In our opinion, bonds issued by Canada were one of the drivers providing momentum in the primary market for EUR benchmarks in 2022. This actually came as quite a surprise, and our forecast for the year as a whole had indeed been surpassed after just a few trading weeks. By the end of the year, the volume attributable to new benchmarks from Canada stood at EUR 30.25bn. In terms of outstanding volume, Canada now ranks in third place with benchmarks of EUR 80.7bn. For 2023, we expect dynamic primary market activity again from the Canadian institutions, although the figures for the start of the year have been somewhat more muted. In January 2022, there were seven deals with a total volume of EUR 7bn compared with only one deal issued to date in the current year (EUR 1.75bn from Bank of Nova Scotia). However, there are also special reasons for this: the change in ECB monetary policy for instance and the approaching end of (full) CBPP3 reinvestments are causing EMU issuers to rush to the primary market at the moment.

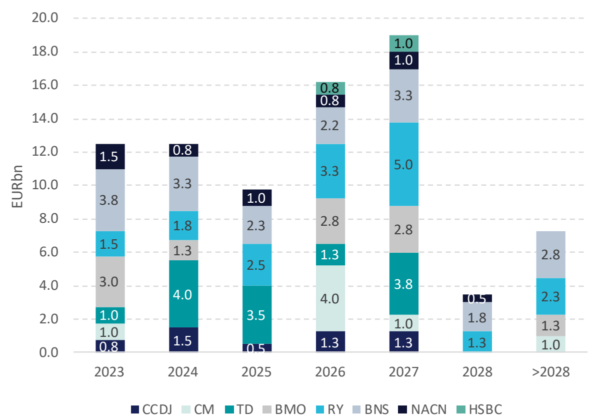
EUR benchmark segment in Canada: eight issuing banks

There are eight issuers active in the EUR benchmark segment in Canada and these are Bank of Montreal (BMO), Bank of Nova Scotia (BNS), Canadian Imperial Bank of Commerce (CIBC), Fédération des Caisses Desjardins du Quebec (CCDJ), HSBC Bank Canada (HSBC), National Bank of Canada (NBC), Royal Bank of Canada (RBC) and Toronto-Dominion Bank (TD). The outstanding volume in the total market stands at EUR 80.7bn (62 bonds). Bank of Nova Scotia is the biggest benchmark issuer here with 19 bonds and a volume of EUR 19.2bn. All covered bonds from Canada are mortgage-backed bonds. This is due to the legislation which only accepts residential property loans as cover assets.

EUR benchmarks CA (outstanding, EUR bn)



EUR benchmarks CA (maturities, EUR bn)



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

Issuance potential in Canada remains strong

According to the ECBC Annual Statistics (based on the year-end figures for 2021), in terms of the total outstanding volume of covered bonds, Canada ranks in ninth place (EUR 138.4bn), ahead of Norway (EUR 132.0bn) and after Switzerland (EUR 152.8bn). The issuance side has been characterised by particular monetary policy framework conditions in the wake of the Covid-19 pandemic in Canada too. Looking at the ECBC data, this is reflected not least in the high proportion of private placements. In line with the ECBC rationale, the volume cited here as at year-end 2021 also includes retained bonds issued in CAD and amounts to EUR 33.0bn (2020: EUR 72.8bn). Admittedly, the data basis used here is relatively old, but in our opinion still fulfils an important purpose when determining the issuance potential of Canadian banks. Cessation of the ability to lodge retained covered bonds placed in CAD with the Bank of Canada as collateral for specific refinancing transactions has led to a reduction in the volume of outstanding bonds in domestic currency. In fact, the cover pool volumes here have risen significantly in the wake of strong issuance activity by the Canadian banks. However, this increase was only temporary and the cover assets for CAD bonds then became available for EUR benchmarks. We believe this is the reason for the high level of activity in the primary market in 2022 and we continue to see further potential for the placement of fresh bonds in 2023. Nominal overcollateralisation for EUR benchmark programme issues can still be seen as high. And according to the CMHC Guide, the OC also leads to utilisation of the issuance limits applicable in Canada (5.5% of total assets may be used for covered bond issues), which still permits a large volume of new deals.

Overview: Canadian EUR benchmark issuers[1]

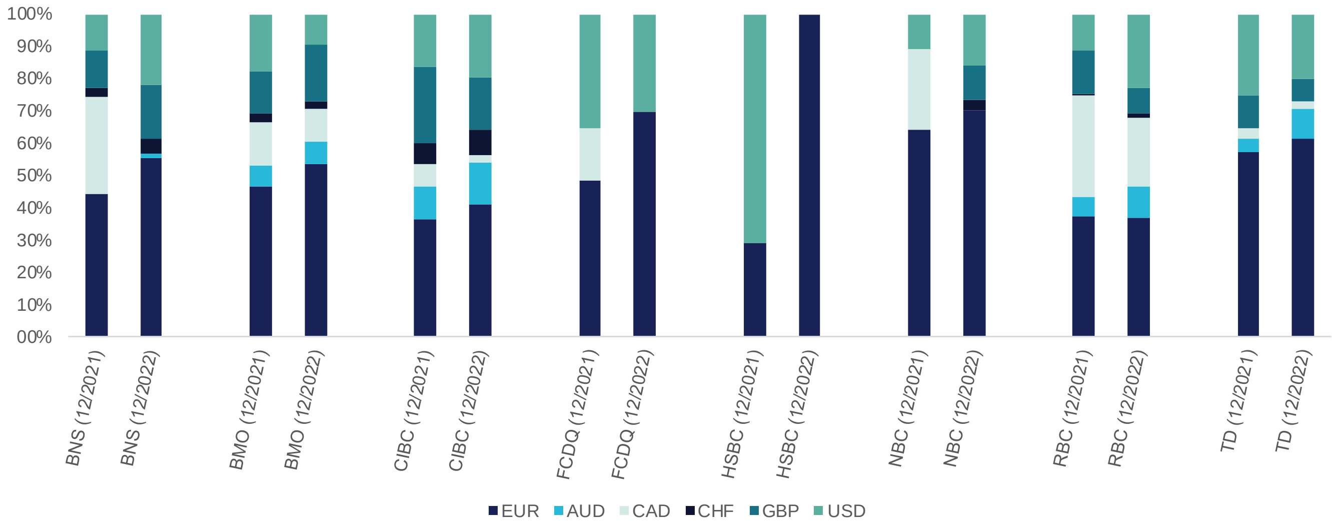
	Cover pool volume (in CADm)	Total out-standing (in CADm)	OC nominal	OC[2] CMHC Guide	OSFI Limit[3]	EUR BMK 2023ytd	EUR BMK 2022	EUR BMK 2021	EUR BMK 2020	EUR BMK 2019
						EURbn / Number of deals				
BMO	43.381	34.183	26,9%	7.00%	3.21%	- / -	5.50 / 3	1.25 / 1	1.25 / 1	1.25 / 1
BNS	85.012	48.111	76,7%	6.40%	3.79%	1.75 / 1	5.25 / 3	3.25 / 2	2.75 / 2	1.25 / 1
CCDJ	13.216	10.909	21.2%	4.37%	3.20%[4]	- / -	2.25 / 3	0.50 /1	0.50 / 1	1.25 / 2
CIBC	46.339	29.455	57.3%	7.43%	3.35%	- / -	2.50 / 1	2.00 / 2	0.75 / 1	1.00 / 1
NACN	17.461	11.700	49.2%	9.15%	3.16%	- / -	1.00 / 1	1.25 / 2	- / -	0.75 / 1
RY	117.557	67.477	74.2%	7.62%	3.23%	- / -	6.50 / 4	2.50 / 2	2.50 / 2	3.00 / 2
TD[2]	55.716	34.582	61.1%	5.26%	1.90%	- / -	6.25 / 3	- / -	1.00 / 1	3.00 / 2
HSBC[2]	7.651	3.875	97.4%	10.33%	3.27%	- / -	1.00 / 1	0.75 / 1	- / -	- / -
					Σ	**1.75 / 1**	**30.25 / 19**	**11.50 / 11**	**8.75 / 8**	**11.50 / 10**

Source: Issuers, market data, NORD/LB Markets Strategy & Floor Research;
[1] Reporting date 31.12.2022; [2] OC as basis for OSFI limit; [3] OSFI limit = 5.5%; [4] AMF limit 5.5%

EUR benchmark issuers in Canada: covered bonds by currency

The breakdown by currency also reveals the switch made by benchmark issuers back to public placements. The proportion of CAD deals has dropped significantly. As a result of primary market issues in other currencies as well (mainly USD but also AUD, CHF and GBP), utilisation of the issuance potential was not limited to the euro. At the same time, it is clear that the comparison shows that the amount of the outstanding volume attributable to the euro for year-end 2021 versus 2022 has increased for nearly all issuers in the EUR benchmark segment.

Covered bond issuers in Canada: outstanding volume by currency (Dec. 21 vs. Dec. 22



Source: Issuers, NORD/LB Markets Strategy & Floor Research; For information purposes – Canadian issuers not active in the EUR benchmark segment: Laurentian Bank reports exclusively USD covered bonds in its Dec. 22 reporting (total: CAD 550m); Equitable Bank reports exclusively EUR covered bonds in its Dec. 22 reporting (total: EUR 900m)

Property market as an influencing factor for Canada's covered bond segment…

One key driver for the high level of issuance activity from Canada was the momentum in the country's residential property market. Mortgage financing was also influenced by developments in the housing markets. The sharp rise in prices alone caused a notable increase in nominal financing volumes. Slightly slower momentum is expected initially here for 2023. Rating agency Fitch, for example, is forecasting a nominal decline in house prices in Canada (2023: -7% to -5%). The rise in debts in arrears, on the other hand, is very low by international comparison and this is due in particular to the supportive impact of low unemployment, wage rises and the amount of equity amassed by households. Higher financing costs caused by the reversal of Canada's monetary policy are seen as the trigger for a downturn in prices in the future. The "Housing Affordability Index" published by the Bank of Canada clearly reflects this development.

Bank of Canada: Housing Affordability and New Housing Price Index

Source: Bank of Canada, NORD/LB Markets Strategy & Floor Research

…with stabilisation already expected in 2023

The proportion of disposable income that a representative household has to spend on housing-related costs has risen considerably in recent quarters. However, the flattening of this growth trend is also striking, and is due not least to the recent drop in house prices (measured by the Bank of Canada in its "New Housing Price Index"). The Canadian property market is likely to bottom out already in 2023. In its current Monetary Policy Report, the Bank of Canada is also forecasting that growth in "New Construction" and "Housing Resales" will pick up again in the second half of 2023. Some factors that influence the housing market in Canada are likely to cancel each other out. Rising demand caused by population growth and immigration is set to drive up the financing volume on the one hand, while high interest rates and increased housing prices are set to curb demand for new mortgage loans on the other. In fact, some households considering purchasing their own home may see a point some time in 2023 when interest rates are no longer rising and a low is reached in local property prices. Depending on the region, this "combination" can arise at different times throughout 2023 (or not until 2024). Moreover, just as with locations (urban vs. rural), there are also differences between the various property types. In terms of the overall market, there will be a nominal rise in nominal house prices in 2024 as a whole and here the risk experts at Fitch are expecting an increase of 3% to 5%.

Ratings and regulatory classification of Canadian covered bonds

All of the covered bonds from Canada's EUR benchmark issuers have been awarded the top ratings by the rating agencies Moody's, Fitch and DBRS. In addition, at 5.0%, Moody's Collateral Score for the relevant covered bonds shows a high credit quality level for the cover assets, including in international comparison. The mortgage cover pools are granular and, as mentioned above, the primary cover assets exclusively comprise residential property mortgages. Furthermore, all of the cover assets are located in Canada. With regard to regulatory classification, the risk weighting pursuant to CRR for the covered bonds (EUR BMK) is 20%. In our opinion, the EUR benchmarks are also suitable as Level 2A assets in the context of LCR management. They are not eligible for purchase under the expiring CBPP3 and PEPP programmes, but are eligible as collateral in the context of ECB Collateral Management as Canada belongs to the G10.

Key features of covered bond legislation

In our opinion, Canada's covered bond legislation is one of the strongest national legal frameworks globally. This viewpoint chimes not least with that of rating agency Moody's, which in addition to the actual covered bond legislation also includes the market standard, which derives from the issuers' issuance practice and/or corresponding programme descriptions. Insolvency remoteness is ensured through an SPV model. The maximum LTV is set at 80%. From July 2024, indexation for property assets must be carried out quarterly to facilitate measurement of the cover assets in the pool.

Legislation overview: Canada and Germany

Country		Canada	Germany
Name		Canadian Registered Covered Bonds	Öffentliche Pfandbriefe, Hypotheken-, Schiffs- & Flugzeugpfandbriefe
Special act		Yes	Yes
Cover assets (incl. substitute cover, if applicable)		Residential property loans	Mortgage loans, public sector loans, ship loans, aircraft loans
Owner of the assets		SPV	Issuer
Specialist bank principle		No	No
Geographical restriction – mortgage cover		CA	EEA, CH, US, CA, JP, AU, NZ, SG, UK[1], Ship and aircraft Pfandbriefe worldwide
Geographical restriction – public cover		-	EEA, CH, US, CA, JP, UK[10]
LTV – mortgage cover		Private: 80%	60% of mortgage lending value
Legal priority in bankruptcy		Yes	Yes
Cover register		No	Yes
Derivatives in the cover pool		Yes	Yes
Substitute cover		Yes	Yes
Substitute cover limit		10%	15% Öpfe, 20% Hypfe, Schipf, Flupfe
Minimum overcollateralisation		3% nominal	Hypfe/Öpfe: 2% Schipfe/Flupfe: 5%
Asset encumbrance	* Issuance limit ** Cover pool limit	5.5% of total assets*	-
Deferral of maturity		Yes	Yes
Triggers for deferral of maturity		Insolvency, issuer payment default, other events	Bankruptcy/resolution
CRD met		No	Yes (Öpfe / Hypfe / Schipfe) No (Flupfe)
ECB-eligibility		Yes (if denominated in euro)	Yes

Source: National legislation, ECBC, NORD/LB Markets Strategy & Floor Research;

[1] Non-EEA assets limited to 10%, unless collateral is guaranteed

Article 14 of CB Directive also relevant for Canadian covered bonds

The amendments to covered bond legislation in the wake of EU harmonisation also mean new requirements for Canadian covered bonds. For instance, Article 14 CBD stipulates requirements and criteria regarding transparency data, which are to be enshrined in national legislation for jurisdictions with EEA relevance. In the case of “third party countries” such as Canada, direct compliance with the requirements in Article 14 applies in the spirit of the EU Directive, especially inclusion as a Level 2A asset in the context of LCR management. In this regard, we believe it is important to note that all Canadian EUR benchmark issuers are members of the ECBC Covered Bond Label and therefore report in line with Article 14 of the Covered Bond Directive. On the Covered Bond Label website, the corresponding covered bond issues are accordingly specified as “Non-EEA, Art 14 CBD compliant”.

Issuance forecast 2023: significant net new supply from Canada again…

In terms of the EUR benchmark segment as a whole, we expect 2023 to again be characterised by extremely dynamic primary market activity. We are forecasting newly placed EUR benchmarks with a volume of EUR 197.5bn. With maturities standing at EUR 115.5bn, this produces a net new supply of EUR 82bn. In the context of our supply forecast using a bottom-up approach, we expect the largest issuance volumes from the three major jurisdictions of Germany (EUR 33.0bn), France (EUR 42.5bn) and Canada (EUR 25.0bn). With maturities amounting to EUR 17.8bn in Germany, EUR 22.7bn in France and EUR 15bn in Canada, France has the highest net supply of the three countries at EUR 19.9bn. However, in relation to the size of the market as a whole, the figures show very strong relative growth for Canada again in 2023.

…but 2023 off to a rather slow start – for now!

Even after the rather slow start to the year, we are not minded to adjust this forecast. As already mentioned, Canadian banks issued EUR benchmarks with a volume of EUR 30.3bn in 2022, while maturities amounted to EUR 8.0bn. Over the past four years, two trends have been observed with regard to issuance levels from Canada. First of all, the number of appearances in the primary market has risen considerably. Secondly, the volume of new benchmarks, especially in 2022, has been significantly higher than the "usual" size of bond issues in previous years. This can be clearly seen in the above table "Overview: Canadian EUR benchmark issuers". While EUR 11.5bn was issued on the market across 11 ISINs in 2021, for example, 19 deals would be enough for the volume of EUR 20.25bn in 2023. What is striking for 2023 at the moment is that only one deal has been placed in the market to date. However, this had a volume of EUR 1.75bn, which fits with the new size pattern. The differing timing of Canadian issuers in the primary market can be explained in particular by the momentum in the eurozone. The change in ECB monetary policy has led to banks in the eurozone rushing to the market. Alongside the demand for refinancing, the refinancing of potential TLTRO III-maturities or repayments, and also the inevitable forthcoming reduction of the primary market order quota, are another two factors that explain the slow start. In this situation, some Canadian banks are likely to see the issuance environment as more favourable for them later on in Q1 2023. In terms of country-specific factors, the momentum in the property market described earlier could also be a reason for the initially slow activity in the primary market. Here too, however, it is a case of postponement rather than abandonment.

Refinancing also dependent on cost considerations: deals in CHF and GBP in 2023

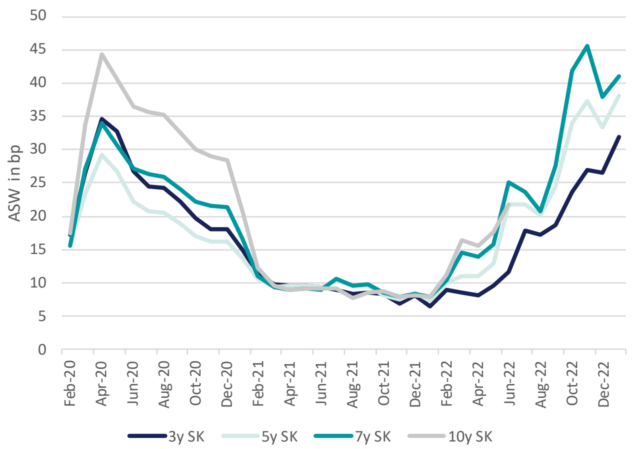
We have repeatedly pointed out in our weekly publication that covered bond issuers from Canada in particular do not just focus on the euro for their primary market activities. The breakdown by currency in the table earlier also shows this very clearly. When choosing the issuance currency, costs relating to cross currency swaps also constitute an important decision-making variable. We believe these are likely to have played a part in the primary market deals in CHF and GBP seen in 2023 to date. RBC, for instance, placed a bond worth GBP 750m on the market on 9 January. Two issuers, RBC and CCDJ, launched CHF bonds in 2023 amounting to CHF 175m (13 January) and CHF 325m (11 January) respectively.

Canadian issuers outside the EUR benchmark segment

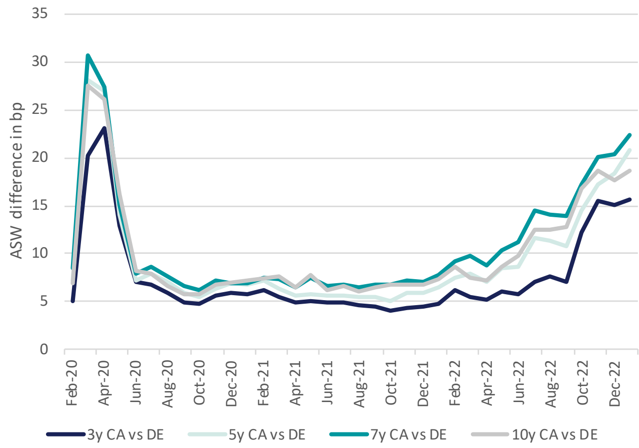
With regard to the market as whole, we believe the momentum expected in the EUR sub-benchmark segment will also be important, not least because of diversification opportunities on the investor side. Equitable Bank (see also NORD/LB Issuer Guide Covered Bonds 2022) is the only Canadian issuer in the EUR sub-benchmark segment and is likely to be just as active in 2023 as the EUR benchmark issuers. After making its debut in 2021, the bank approached investors twice in 2022. The CMHC Canadian Covered Bonds Registry also includes Laurentian Bank, an issuer that is currently active in the segment for publicly placed covered bonds in Canadian dollars and has an outstanding volume of CAD 550m.

Spread trend in 2023: driven by market technicals, credit quality remains robust
With regard to spread levels in the EUR benchmark segment, the difference versus the generic Pfandbrief spread has notably widened since Q4 and year-end 2022. We believe this movement is actually due more to a return to a normal spread picture rather than a fundamental revaluation in more general terms. This means that the credit quality for Canadian covered bonds is still extremely robust. The high volume of new supply also acted as a spread driver. The issuance activity we are expecting will also tend to prevent any strong spread tightening. As a result of dynamic growth in the covered bond market, "concessions" with regard to the spread on the part of Canadian issuers are viewed as a necessary tool. However, we also expect that on the investor side, the new market and/or yield environment in the context of the limiting process will lead to adjustments that will benefit Canadian issuers as well.

Covered bonds: ASW CA (generic)



Covered bonds: ASW CA vs. DE (3y, 5y, 7y, generic)



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

Conclusion
The covered bond market in Canada is without doubt one of the established jurisdictions in the EUR benchmark segment. The country is in the top three jurisdictions both in terms of issuance volume in 2022 and the volume of outstanding covered bonds. We also expect to see further dynamic growth in the EUR benchmark segment in 2023. With regard to the slow start to the year, we believe that this situation reflects more of a deferral than cancellation of the expected issuance activity. The credit quality of the cover pool has not deteriorated in spite of developments in the property markets and is supported not least by the strong legal position. House prices are expected to bottom out in 2023, and nominal price rises are forecast for 2024. Recent spread widening is due to the general market trend as well as the large supply of EUR benchmarks. There is potential for further widening up until the middle of 2023, but again this will be caused by the above factors. One factor that should not be overlooked for a "Canada-specific" forecast risk on the supply side is the current comfortable situation of the country's banks, which are able to optimise their own funding costs by obtaining refinancing comparatively cheaply in other currencies.

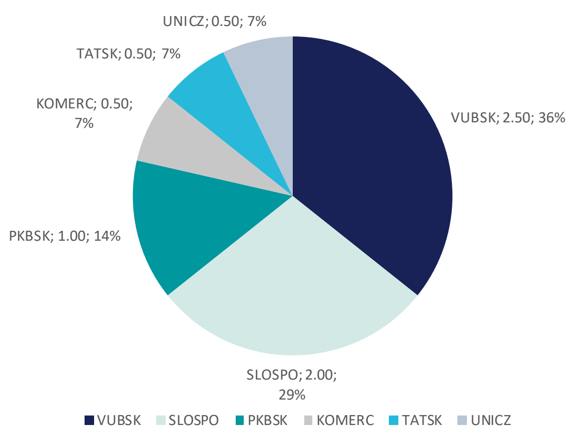
Covered Bonds
Focus on covered bond jurisdictions: Slovakia and Czech Republic in the spotlight

Author: Stefan Rahaus

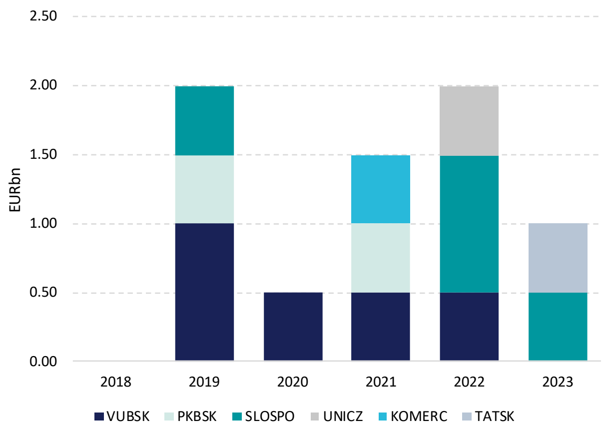
Covered bond markets of Slovakia and Czech Republic: small but growing

Last Wednesday, Slovakia's Tatra Banka placed its inaugural EUR benchmark covered bond, following the previous public placement in 2019 of a EUR 250m sub-benchmark bond that falls due in 2026. We are taking this as an opportunity to focus on the emerging sub-markets for EUR benchmark issues from Slovakia (SK) and Czech Republic (CZ) in the following paragraphs. Based on the latest ECBC annual statistics, the countries ranked in the bottom third with regard to the outstanding volume of covered bonds at the end of 2021, with respective totals of EUR 8.9bn (SK) and EUR 22.6bn (CZ). However, both countries have seen considerable growth and more than doubled their outstanding volumes since 2012, from EUR 3.8bn (SK) and EUR 9.1bn (CZ). In the Czech Republic, 96.4% of covered bonds outstanding at the end of 2021 were issued in the domestic currency of CZK. Looking at the ECBC data, the proportion of private placements is high (SK: 48.6%; CZ: 97.8%). Although this dataset is comparatively old, we continue to derive a high proportion of "own use covered bonds" from current Bloomberg data. Linked to the more restrictive rates of the central banks (the Czech National Bank has raised its key interest rate from 0.25% in mid-2021 to a present level of 7.00%), we see further growth potential for publicly placed EUR benchmarks from Slovakia and the Czech Republic.

EUR benchmarks SK and CZ (outstanding, EUR bn)



EUR benchmarks SK and CZ (issuances, EUR bn)



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

EUR benchmark segment – Slovakia: four banks have issued EUR 6.0bn in total since 2019

Slovakian banks have been active in the EUR benchmark segment since 2019. The outstanding volume on the market as a whole totals EUR 6.0bn (12 bonds). The issuances break down as follows: Všeobecná úverová banka (VUBSK) with EUR 2.5bn (5 bonds), Slovenská sporiteľňa (SLOSPO) with EUR 2.0bn (4 bonds), Prima Banka Slovensko (PKBSK) with EUR 1.0bn (2 bonds) and now Tatra Banka (TATSK) with EUR 500m (1 bond).

EUR benchmark segment – Czech Republic: two banks have issued EUR 1.0bn overall since 2021

Two issuers are currently active in the Czech EUR benchmark segment: Komerční banka (KOMERC) and UniCredit Bank Czech Republic and Slovakia (UNICZ). A total of EUR 500m was placed by KOMERC in 2021 and by UNICZ in October 2022. No Czech banks were active on the primary market between 2014 and 2021.

Slovakian EUR benchmark issuers (cf. NORD/LB Issuer Guide Covered Bonds 2022)

Issuer *(Link)*	As of	Type	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk Weight	Maturity Type	Covered Bond Rating (Fitch / Moody's / S&P / DBRS)
Prima Banka Slovensko (PKBSK)	31.12.2022	M	3,664	2,000	83.2	BMK	1 / 10%	SB	- / Aaa / - / -
Slovenská sporiteľňa (SLOSPO)	30.09.2022	M	5,314	2,801	89.7	BMK/SBMK	1/2A / 10%	SB	- / Aaa / - / -
Tatra Banka (TATSK)	30.09.2022	M	2,366	1,948	21.5	BMK/SBMK	1/2A / 10%	SB	- / Aaa / - / -
Vseobecna Uverova Bka (VUBSK)	30.09.2022	M	4,502	3,982	13.1	BMK	1 / 10%	SB	/ Aa1 / - / -

Source: Issuers, rating agencies, NORD/LB Markets Strategy & Floor Research

Slovakia's cover pools only backed by residential assets

The cover pools of Slovakian issuers consist entirely of residential mortgage financing as primary cover, all of which denominated in euros and located in Slovakia. Mortgages that are more than 90 days overdue were not included in any of the cover pools. The nominal overcollateralisation ratios of the Slovakian programmes considered here in some cases well exceed the legal minimum requirement of 5% in Slovakia (see also table).

Czech EUR benchmark issuers (cf. NORD/LB Issuer Guide Covered Bonds 2022)

Issuer *(Link)*	As of	Type	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk Weight	Maturity Type	Covered Bond Rating (Fitch / Moody's / S&P / DBRS)
Komerční banka (KOMERC)	31.12.2022	M	622	499	24.7	BMK	1 / 10%	SB	AAA / - / - / -
UniCredit Bank Czech Re (UNICZ)	30.09.2022	M	5,836	3,936	48.3	BMK	1 / 10%	SB	- / Aa2 / - / -

Source: Issuers, rating agencies, NORD/LB Markets Strategy & Floor Research

KOMERC with 100% residential assets, UNICZ with mixed pool

The cover pool of Komerční banka is backed 100% by residential mortgages and has an NPL ratio of 0%. All cover assets are located within the Czech Republic. UNICZ's cover pool assets are both residential and commercial, and originate from the Czech Republic and Slovakia. Mortgages that are in default or delayed for more than 90 days are not included.

Regulatory classification: risk weighting of 10% and LCR Level 1 for EUR benchmarks

Prima Banka Slovensko, Slovenská sporiteľňa, Tatra Banka and Komerční banka have all been assigned the respective top ratings by the ratings agencies Moody's and Fitch. The ratings assigned to the covered bonds of Všeobecná úverová banka (Aa1) and UniCredit Bank Czech Republic and Slovakia (Aa2) are one and two notches lower, respectively. However, all ratings have been assigned to Credit Quality Step 1 (CQS 1). The covered bonds can therefore benefit from a preferential risk weight of 10% pursuant to the CRR. According to our understanding, the EUR benchmarks are also eligible as Level 1 assets in the context of LCR management, while we consider the two outstanding EUR sub-benchmarks of SLOSPO and TATSK to be Level 2A assets. For both countries, we would say they are eligible as collateral in the context of ECB collateral management. As Slovakia is part of the eurozone, only its covered bonds are eligible for purchase under the expiring CBPP3 and PEPP programmes.

EU Covered Bond Directive implemented in both countries

In the course of EU harmonisation, both Slovakia and the Czech Republic have implemented the EU Covered Bond Directive and carried out corresponding amendments to their covered bond legislation. As a result, both countries can issue covered bonds with the label "European Covered Bond (Premium)". This consequently makes it considerably easier for investors to have evidence of regulatory classification. Overall, we would say that Slovakian legislation appears to be stricter, which is not least evident in the higher prescribed minimum overcollateralisation (see table below). A special feature of the Slovakian legislation is that the National Bank of Slovakia (NBS) has the option to extend the original maturity extension option by a further 12 months if it can be assumed that this delay in repayment means the claims of covered bond holders are more likely to be fulfilled. For Slovakian covered bonds, it is therefore possible that a maturity extension can reach up to two years.

Overview of legislation: Slovakia and the Czech Republic

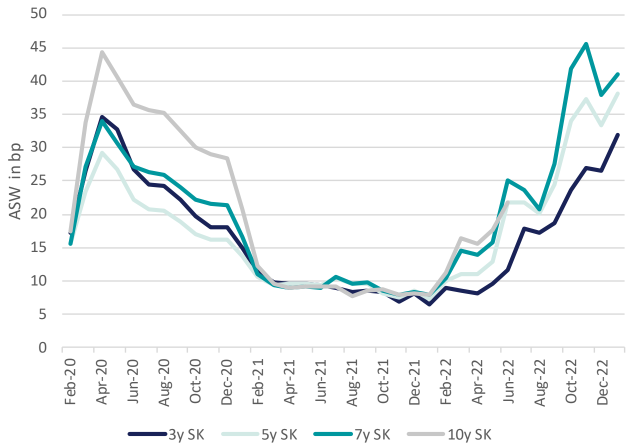
Country	Slovakia	Czech Republic
Name	Krytý Dlhopis	Hypotecni zástavní listy/verejnoprávní zástavní listy/Smíšené zástavní listy
Special act	Yes	Yes
Cover assets (incl. substitute cover, if applicable)	Mortgage loans, public sector loans, other	Mortgage loans, public sector loans
Owner of the assets	Issuer	Issuer
Specialist bank principle	No	No
Geographical restriction – mortgage cover	Slovakia	CZ, EEA
Geographical restriction – public sector cover	Slovakia, EU	CZ, OECD
LTV ratio – mortgage cover	Private: 80%, commercial 60%/70%, other: 70%	100%
Legal priority in bankruptcy	Yes	Yes
Cover register	Yes	Yes
Derivatives in cover pool	Yes	Yes
Substitute cover	Yes	Yes
Substitute cover limit	10%/20%	15%
Minimum overcollateralisation	5% CRR assets / 10% other (nominal)	2%/10% with at least 85% public coverage (statutory limit) (nominal)
Asset encumbrance	-	-
Maturity structure	Soft bullet	Hard bullet/soft bullet
Triggers for deferral of maturity	Insolvency, issuer payment default, cancellation of the covered bond programme	Insolvency, issuer payment default, lack of liquidity
CRD met	Yes	Yes
ECB-eligibility	Yes	Yes

Source: National legislation, ECBC, NORD/LB Markets Strategy & Floor Research

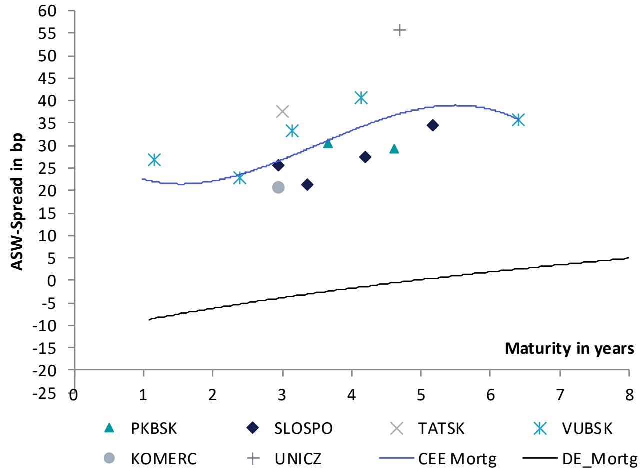
Spread trend

The spreads of covered bonds issued by Slovakian and other Central and Eastern European (CEE) issuers widened significantly in 2022. The difference versus generic Pfandbrief spreads also widened appreciably. However, we do not think these shifts represent a general fundamental revaluation of Slovakian or Czech issuers. Rather, in our view, we see a return to a normal spread structure in the EUR benchmark segment. While the current monetary and geopolitical drivers are impacting the macro profile, the banking sector and cover assets, we interpret the spread movement as a normalisation towards levels that prevailed before the extraordinary monetary support measures were introduced by central banks.

Covered bonds: ASW SK (generic)



Covered bonds: ASW CEE vs. DE (generic)



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

EUR benchmark issuance forecast for 2023

For 2023, we expect the volume of new EUR benchmark placements to amount to EUR 197.5bn. With maturities in the region of EUR 115.5bn, this would result in a net new supply of EUR 82bn. Following a record volume in 2002, we expect extremely dynamic primary market activity in 2023 as well. While it will be the major jurisdictions such as Canada, France and Germany that are likely to drive supply and net supply, we believe the expected momentum from the CEE region is also important. This not least applies to the diversification possibilities for investors. In line with our supply forecast, we expect an issue volume of EUR 2.0bn from Slovakia and EUR 1.0bn from the Czech Republic. Since there are no bonds maturing in 2023, these values would also represent the net supply.

Conclusion

The covered bond markets in Slovakia and the Czech Republic are among the newest in the EUR benchmark segment and, with a total outstanding volume of EUR 7.0bn, also some of the smaller jurisdictions. Nevertheless, we see the CEE region in general – and therefore also the Slovakian and Czech covered bond markets – as a growth region with potential for fresh EUR benchmarks. With regard to spread expectations for Slovakian and Czech EUR benchmarks, we have already seen a considerable spread widening and, for technical reasons, we can certainly imagine this trend continuing until the middle of the year, albeit at a significantly slower pace.

SSA/Public Issuers
26th meeting of the Stability Council (December 2022)

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

Foreword on the Stability Council and the economic situation

The Stability Council, a joint body operated by the federal government (Bund) and federal states (Laender), convened for its 26th meeting on 16 December 2022. The meeting was chaired by Doris Ahnen, Minister of Finance for Rhineland-Palatinate, and Christian Lindner, Federal Minister of Finance. The establishment of the Stability Council can be traced back to the Federalism Reform II (Foederalismusreform II), since which time its existence has been governed by Article 109a of the Basic Law (GG). In the press release covering the 26th meeting, the significant strain on public budgets was again highlighted: the energy crisis triggered by the Russian war of aggression in Ukraine is hampering economic development and entails additional burdens following the measures implemented to contain the pandemic. The federal government and Laender are working closely together in an attempt to mitigate the negative impacts of the energy crisis on the population. “The Bund and Laender have adopted a range of measures and have also provided credit-financed funds to deal with the multiple crises. And this is the right approach, because the population and the private sector must not be left to confront such a challenging situation all alone”, comments Monika Heinhold, Minister of Finance for Schleswig-Holstein.

Reduction in the structural deficit by 2026

In terms of the public finances, the Stability Council is expecting a structural deficit of 2.5% of GDP for 2022. Looking ahead, this value could rise to around 3.25% in 2023. The further outlook envisages a reduction in the structural deficit, even if the challenges that Germany is facing in terms of meeting the general government deficit targets in the coming years have increased noticeably as a result of developments in recent months. The European medium-term budgetary target – a maximum structural deficit in the overall public budget of 0.5% of GDP – is expected to be achieved on average between the years 2024 and 2026. From the perspective of the Stability Council, the current deviations are permissible due to the European exemption clause and regulatory requirements of European budgetary monitoring to reduce the structural deficit. The Advisory Board of the Stability Council considers the results of the financial projections to be justifiable. Furthermore, it judges that the favourable development in 2022 could contribute to lower deficits than assumed by the Stability Council. In addition, the Advisory Board emphasises that projections in relation to state finances are extremely uncertain at present.

Debt brake compliance check

At its 26th meeting, the Stability Council continued to monitor the debt brake pursuant to Article 109 (3) GG. On the basis of the harmonised analysis system based on European specifications, no objections have been raised for the years 2022 and 2023 at the level of either Bund or Laender. The harmonised analysis system uses structural net borrowing as a target value. In this context, the budget balance is adjusted by default for special financing transactions in the form of reserve movements, for the financial transactions included in the adjusted receipts and expenditure, and for cyclical effects.

Stability Council reviews on the basis of individual stability reports

As part of its regular budgetary monitoring procedures, the Stability Council reviewed the budgetary situation at both Bund and Laender level on the basis of their respective stability reports. The restructuring programmes agreed in Dec. 2017 with the Laender of Bremen and Saarland expired in 2020. According to the stability report, there are still indications (based on key metrics) of an impending budgetary emergency for Bremen. At its 24th meeting, the Stability Council established an Evaluation Committee to determine whether an impending emergency of this kind definitively exists in Bremen. At the time of the 25th meeting of the Stability Council, the Evaluation Committee was unable to either establish or refute the existence of a budgetary emergency with sufficient certainty. For this reason, it was decided to continue with the fact-finding mission. The current evaluation report still shows no improvement in the budgetary situation of Bremen. As such, Bremen will submit proposals for a restructuring programme to the Council at its meeting scheduled for the end of 2023.

Number of anomalies matches historic low

In comparison with the previous year, the number of anomalies has remained constant at 16. The peak value of 29 anomalies was registered in 2011, while the lowest number of anomalies, also 16, was first determined in 2019. The current number of anomalies has therefore matched the historic low despite the ongoing crises. The Stability Council identifies an anomaly as soon as one of the relevant key metrics (budget balance, credit financing ratio, interest/tax ratio, debt level) breaches the permitted limit several times in one of the analysis periods (1. Current situation = last two financial years and current financial year; 2. Planning = financial planning of the coming years). Since 2020, an updated system to assess the budgetary situations has been used. Details regarding the new version can be accessed here. Information on the function of the Stability Council, its key metrics and unchanged definitions is available in the most recent version of our NORD/LB Issuer Guide – German Laender 2022.

Anomalies identified by the Stability Council

	Budget balance		Credit financing ratio		Interest-tax ratio		Debt level	
	Current situation	Planning	Current situation	Planning	Current situation	Planning	Current situation	Planning
Baden-Wuerttemberg	No	No	No	No	No	No	No	No
Bavaria	No	No	No	No	No	No	No	No
Brandenburg	**Yes**	No	No	No	No	No	No	No
Hesse	No	No	No	No	No	No	No	No
Mecklenburg-Western P.	No	No	No	No	No	No	No	No
Lower Saxony	No	No	No	No	No	No	No	No
North Rhine-Westphalia	No	No	No	No	No	No	No	No
Rhineland-Palatinate	No	No	No	No	No	No	No	No
Saarland	No	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
Saxony	No	No	No	No	No	No	No	No
Saxony-Anhalt	No	No	No	No	No	No	**Yes**	No
Schleswig-Holstein	No	No	No	No	No	No	**Yes**	**Yes**
Thuringia	No	No	No	No	No	No	No	No
Berlin	No	No	No	No	**Yes**	**Yes**	No	No
Bremen	**Yes**	No	**Yes**	No	**Yes**	**Yes**	**Yes**	**Yes**
Hamburg	No	No	No	No	No	No	No	No

Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Structural budget balance in EUR per capita

	Current		Target	Limit		Financial planning			Limit
	2020	2021	2022	violations	2023	2024	2025	2026	violations
Baden-Wuerttemberg	-484	233	53	No	65	29	186	-	No
Bavaria	-433	-4	**-596**	No	-42	-6	36	-	No
Brandenburg	-579	**-219**	**-692**	**Yes**	-384	-249	-51	-7	No
Hesse	-398	158	-305	No	64	51	49	67	No
Mecklenburg-Western Pomer	**-1,806**	485	-148	No	24	72	203	212	No
Lower Saxony	-609	-49	40	No	67	34	37	42	No
North Rhine-Westphalia	-651	**-180**	-42	No	-30	21	36	-	No
Rhineland-Palatinate	-310	390	-234	No	-81	-21	39	28	No
Saarland	-210	-4	-277	No	137	137	199	200	No
Saxony	-378	156	-318	No	-39	63	416	428	No
Saxony-Anhalt	-384	**-867**	-120	No	111	154	215	-	No
Schleswig-Holstein	-50	161	-192	No	-206	-130	-92	-	No
Thuringia	-498	-66	-232	No	-216	131	134	138	No
Berlin	-196	84	**-752**	No	-450	-269	-110	71	No
Bremen	-568	**-230**	**-1,149**	**Yes**	317	535	725	725	No
Hamburg	-167	514	**-649**	No	268	237	49	-227	No
Laender average*	-492	23	-242		-25	49	129	152	
Threshold (universal)	-692	-177	-442		-492	-492	-492	-492	

* The Laender average from 2023 was determined using estimates. **Red** = Violation of permitted threshold values; several times = value exceeded
Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Credit financing ratio in %

	Current		Target	Limit		Financial planning			Limit
	2020	2021	2022	violations	2023	2024	2025	2026	violations
Baden-Wuerttemberg	**18.0**	3.6	-3.1	No	-1.9	-2.3	-2.3	-	No
Bavaria	10.3	3.1	**19.3**	No	-0.3	-0.9	-1.8	-	No
Brandenburg	10.4	**8.8**	1.1	No	2.2	-0.2	-0.3	1.3	No
Hesse	7.0	-0.7	2.2	No	-0.8	-1.1	-1.0	-0.9	No
Mecklenburg-Western Pomer	**21.8**	-2.5	-1.5	No	-1.7	-1.7	-3.2	-3.2	No
Lower Saxony	**19.6**	-4.2	-1.9	No	0.0	-0.3	-0.5	-0.7	No
North Rhine-Westphalia	10.3	3.2	0.8	No	-0.1	-0.3	-0.6	-	No
Rhineland-Palatinate	7.1	-2.6	4.3	No	-0.8	-1.0	-0.9	-0.7	No
Saarland	5.9	0.9	5.8	No	-1.4	-1.4	-2.2	-2.2	No
Saxony	4.1	-2.7	2.3	No	-4.6	-5.7	-7.0	-7.1	No
Saxony-Anhalt	5.7	**11.7**	0.4	No	-2.3	-3.2	-3.3	-	No
Schleswig-Holstein	**39.4**	-4.5	-2.3	No	-0.1	-0.6	-0.8	-	No
Thuringia	9.8	-0.8	-0.2	No	-1.9	-2.0	-2.1	-2.1	No
Berlin	17.4	-7.1	2.7	No	-1.5	0.4	0.5	-0.3	No
Bremen	6.9	**7.8**	**10.9**	**Yes**	-1.0	-5.2	-6.9	-6.9	No
Hamburg	9.6	1.5	**9.5**	No	0.7	1.6	2.5	4.3	No
Laender average*	12.9	1.0	4.2		-1.0	-1.5	-1.9	-1.7	
Threshold (universal)	15.9	4.0	7.2		9.2	9.2	9.2	9.2	

* The Laender average from 2023 was determined using estimates. **Red** = Violation of permitted threshold values; several times = value exceeded
Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Interest/tax ratio in %

	Current		Target	Limit	Financial planning				Limit
	2020	2021	2022	violations	2023	2024	2025	2026	violations
Baden-Wuerttemberg	3.0	**3.6**	2.9	No	3.1	3.0	3.1	-	No
Bavaria	1.0	0.8	1.1	No	1.2	1.3	1.4	-	No
Brandenburg	2.2	2.4	2.2	No	2.5	2.5	2.6	2.6	No
Hesse	**4.0**	3.3	3.3	No	2.9	3.2	3.6	4.2	No
Mecklenburg-Western Pomer	3.4	2.8	2.9	No	3.6	2.7	2.6	2.6	No
Lower Saxony	2.2	1.9	3.1	No	3.0	3.2	3.3	3.4	No
North Rhine-Westphalia	2.2	2.2	2.0	No	2.3	2.8	3.0	-	No
Rhineland-Palatinate	2.6	2.0	2.5	No	2.2	2.5	2.9	3.0	No
Saarland	**8.0**	**6.2**	**8.3**	**Yes**	**6.1**	**6.6**	**7.0**	**7.5**	**Yes**
Saxony	0.2	0.4	0.4	No	0.3	0.5	0.7	1.1	No
Saxony-Anhalt	**3.9**	3.6	3.1	No	3.5	3.0	2.8	-	No
Schleswig-Holstein	3.1	2.9	3.3	No	3.8	4.4	**4.8**	-	No
Thuringia	3.5	3.0	3.0	No	2.6	2.7	2.8	3.0	No
Berlin	**4.3**	**4.1**	3.9	**Yes**	3.9	4.7	**5.0**	**5.4**	Yes
Bremen	**14.2**	**12.0**	**12.6**	**Yes**	**10.3**	**9.8**	**9.3**	**9.3**	**Yes**
Hamburg	3.4	2.7	3.6	No	2.8	2.9	3.3	3.9	No
Laender average*	2.7	2.6	2.7		3.4	3.5	3.6	4.2	
Threshold (non-city states)	3.8	3.6	3.7		4.7	4.7	4.7	4.7	
Threshold (city states)	4.1	3.8	4.0		5.0	5.0	5.0	5.0	

* The Laender average from 2023 was determined using estimates. **Red** = Violation of permitted threshold values; several times = value exceeded
Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Debt level in EUR per capita

	Current		Target	Limit	Financial planning				Limit
	2020	2021	2022	violations	2023	2024	2025	2026	violations
Baden-Wuerttemberg	5,042	5,370	5,284	No	5,260	5,217	5,178	-	No
Bavaria	2,597	2,810	4,009	No	4,005	3,970	3,890	-	No
Brandenburg	6,699	6,905	6,967	No	7,089	7,065	7,041	7,119	No
Hesse	7,211	6,388	6,545	No	6,545	6,528	6,516	6,508	No
Mecklenburg-Western Pomer	7,603	7,595	7,595	No	7,595	7,595	7,507	7,419	No
Lower Saxony	8,595	8,484	8,396	No	8,396	8,384	8,362	8,327	No
North Rhine-Westphalia	8,649	8,917	8,975	No	8,975	8,964	8,936	-	No
Rhineland-Palatinate	7,900	7,732	7,950	No	7,911	7,858	7,809	7,770	No
Saarland	**14,772**	**14,840**	**15,235**	**Yes**	**15,183**	**15,162**	**15,044**	**14,916**	**Yes**
Saxony	3,033	3,171	3,485	No	3,440	3,342	3,195	3,043	No
Saxony-Anhalt	9,462	**10,179**	**10,308**	**Yes**	**10,298**	10,252	10,206	-	No
Schleswig-Holstein	**10,331**	**10,829**	**10,740**	**Yes**	**10,894**	**11,026**	**11,149**	-	**Yes**
Thuringia	7,029	7,444	7,363	No	7,251	7,136	7,017	6,895	No
Berlin	16,329	16,318	16,615	No	16,489	16,555	16,630	16,623	No
Bremen	**31,646**	**62,682**	**33,700**	**Yes**	**33,526**	**32,920**	**32,140**	**31,360**	**Yes**
Hamburg	13,552	13,777	14,641	No	14,674	14,794	15,012	15,431	No
Laender average*	7,454	7,580	7,844		10,471	10,423	10,352	11,401	
Threshold (non-city states)	9,690	9,854	10,197		10,297	10,397	10,497	10,597	
Threshold (city states)	16,398	16,676	17,257		17,357	17,457	17,557	17,657	

* The Laender average from 2023 was determined using estimates. **Red** = Violation of permitted threshold values; several times = value exceeded
Source: Stability Council, NORD/LB Markets Strategy & Floor Research

Bremen: potential impending budgetary emergency

Together with Saarland, Bremen has also been undergoing a restructuring programme since 2011, which expired at the end of 2020. As mentioned previously, anomalies in terms of Bremen's key budget metrics were again identified at the 24th meeting of the Stability Council in December 2021. At the 25th meeting of the Stability Council, the report presented by the Evaluation Committee was unable to either establish or refute the existence of a budgetary emergency in Bremen with sufficient certainty. For this reason, additional checks were made in the autumn of 2022. On 18 October 2022, Bremen sent recalculated key metrics to the Evaluation Committee. These took into account the supplementary budget for 2022, which was still being discussed in parliament at the time. Although the key metrics declined following the recalculation, they still indicated an impending budgetary emergency. The conclusion of the Evaluation Committee's report welcomes the fact that anomalies can no longer be identified in Bremen's indicators for the financial planning period in question. However, the financial planning does not yet take into account the budgetary risks resulting from the sharp rise in energy prices and the high inflation rates. The committee is also concerned about the establishment of a credit-financed climate fund based on the exceptional circumstances of the debt brake. The Evaluation Committee has therefore recommended that the Stability Council declare an imminent budgetary crisis in Bremen. Against the background of the current crisis situation, however, the Evaluation Committee considers the submission of a proposal for a restructuring programme in Bremen at the Stability Council meeting scheduled for the end of 2023 to be reasonable. The Stability Council then followed the suggestions and determined that Bremen was facing an impending budget emergency.

Lower Saxony: balanced budgets and stable debt level

And how is our principal shareholder faring? Lower Saxony has not exceeded the threshold value for any of the key figures taken into account by the Stability Council and is therefore again not required to undergo restructuring. Accordingly, no anomalies have again been recorded for Lower Saxony. Due to solid budget management in recent years, Lower Saxony will be able to navigate the challenges presented by the pandemic and the energy crisis. The current situation proves that the Bundesland's ability to act remains unaffected by the introduction of the debt brake. In line with current budget and financial planning, Lower Saxony has already posted a positive structural budget balance again since 2022.

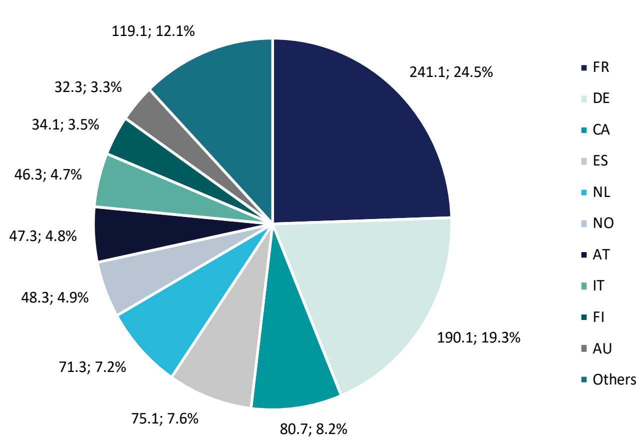
Conclusion

The 26th meeting of the Stability Council was dominated by challenges associated with multiple crises. Since its first meeting in April 2010, the financial situation of the German Laender has steadily improved. This is evident from the decreasing number of anomalies and/or exceeded limits identified by the Stability Council. The meeting in 2011 identified a total of 29 anomalies, whereas the figure was down to just 16 in 2022 – matching the record low first recorded in 2019 – despite the impacts of the pandemic and energy crisis. As such, development has been positive overall. Only in Bremen has an imminent budgetary crisis been determined. Proposals regarding a restructuring programme are expected to be presented to the meeting scheduled for the end of 2023.

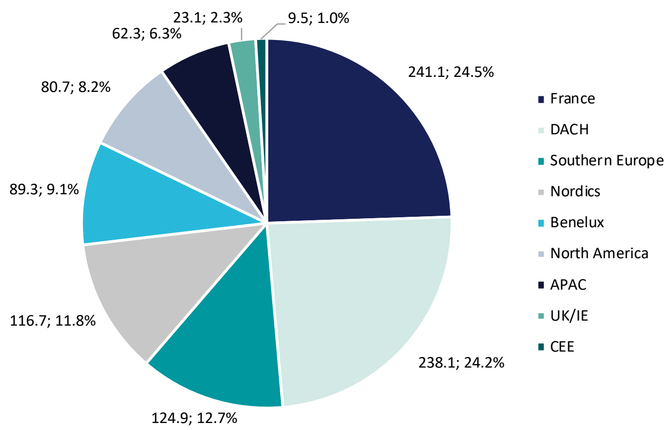
NORD/LB

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



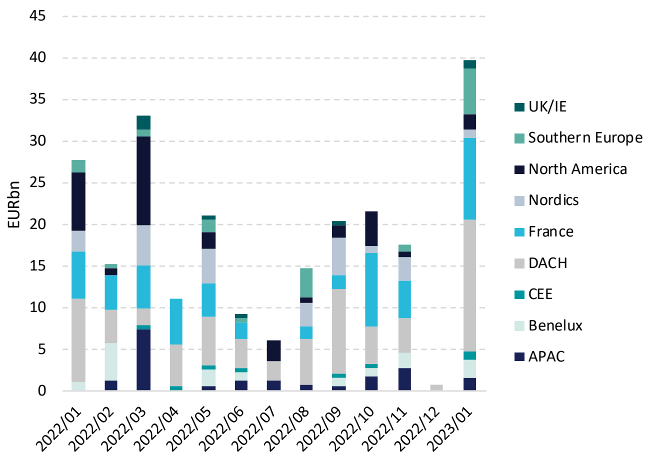
EUR benchmark volume by region (in EURbn)



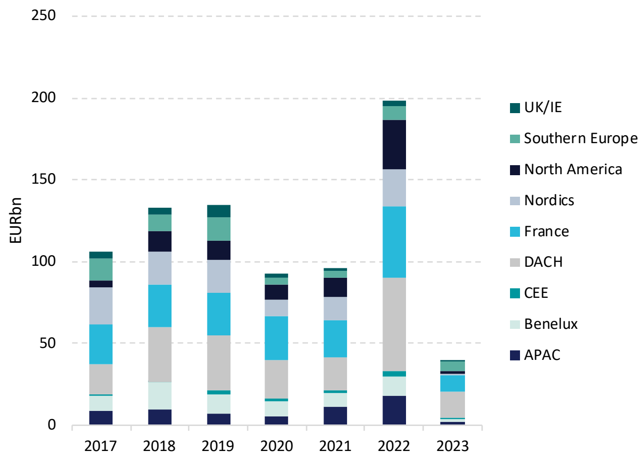
Top-10 jurisdictions

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	241.1	232	16	0.96	9.7	5.3	1.04
2	DE	190.1	272	31	0.64	8.1	4.4	0.82
3	CA	80.7	62	0	1.26	5.6	2.9	0.59
4	ES	75.1	59	6	1.16	11.2	3.7	1.81
5	NL	71.3	73	1	0.91	11.1	6.9	0.90
6	NO	48.3	58	11	0.83	7.2	3.8	0.50
7	AT	47.3	82	3	0.57	8.8	5.6	1.03
8	IT	46.3	57	2	0.79	9.2	3.8	1.24
9	FI	34.1	36	3	0.94	7.3	3.7	0.80
10	AU	32.3	32	0	1.01	7.6	3.9	1.19

EUR benchmark issue volume by month

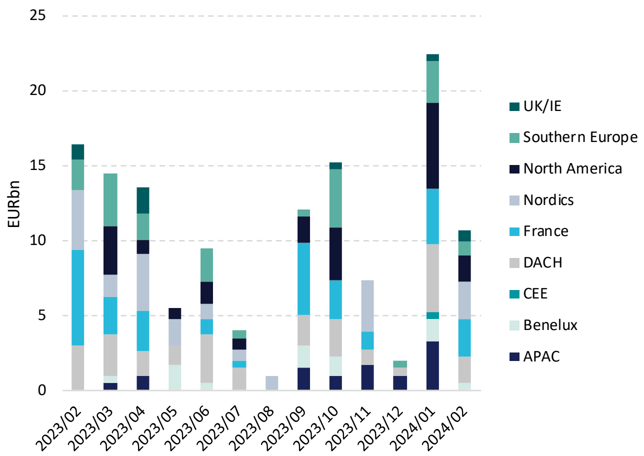


EUR benchmark issue volume by year

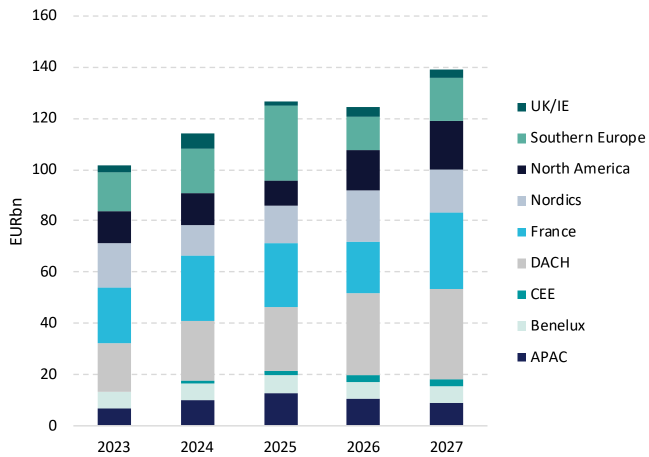


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

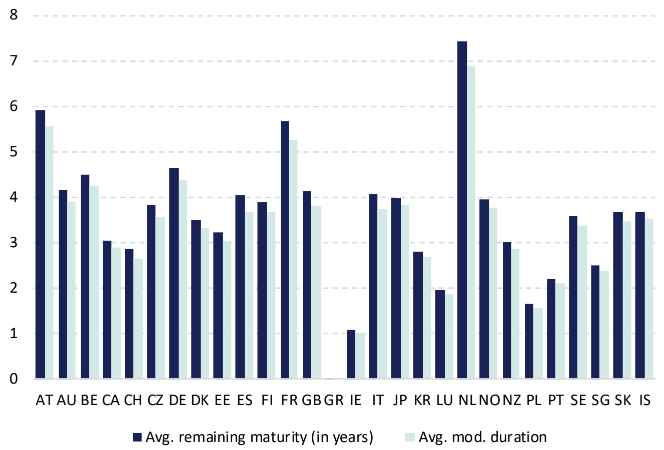
EUR benchmark maturities by month



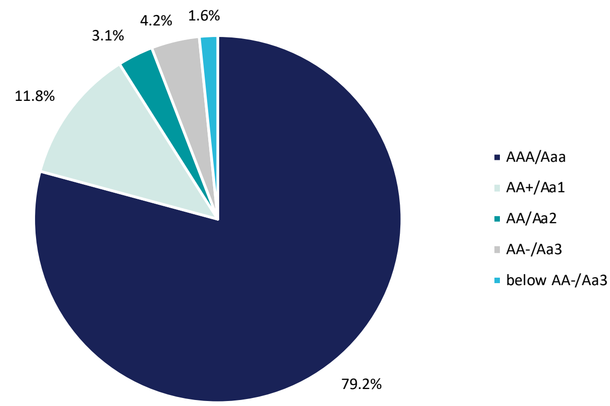
EUR benchmark maturities by year



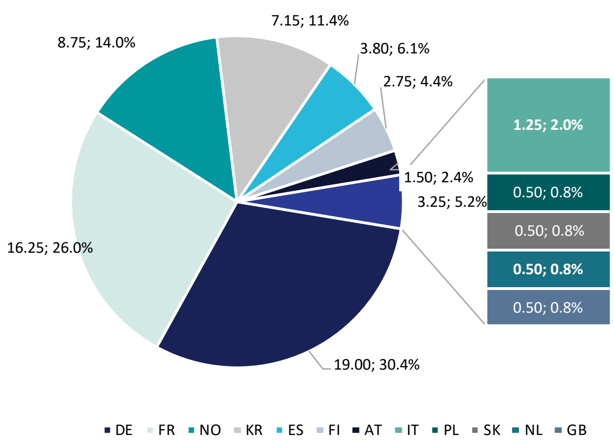
Modified duration and time to maturity by country



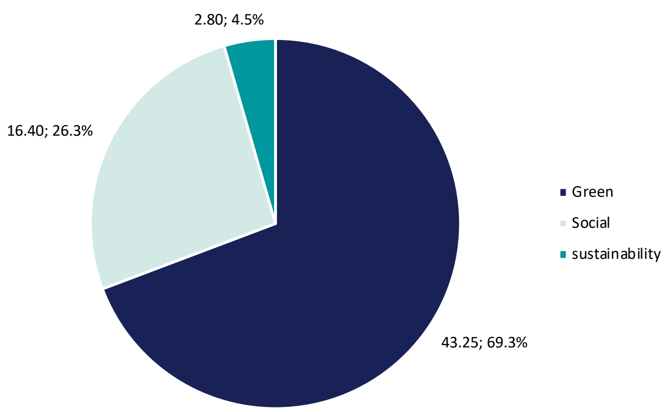
Rating distribution (volume weighted)



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

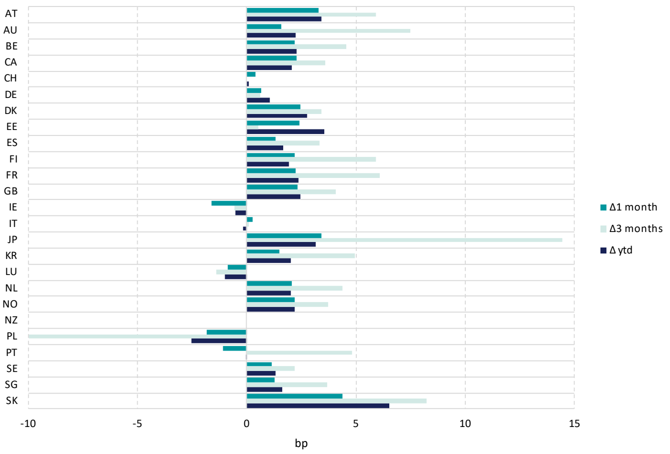


EUR benchmark volume (ESG) by type (in EURbn)

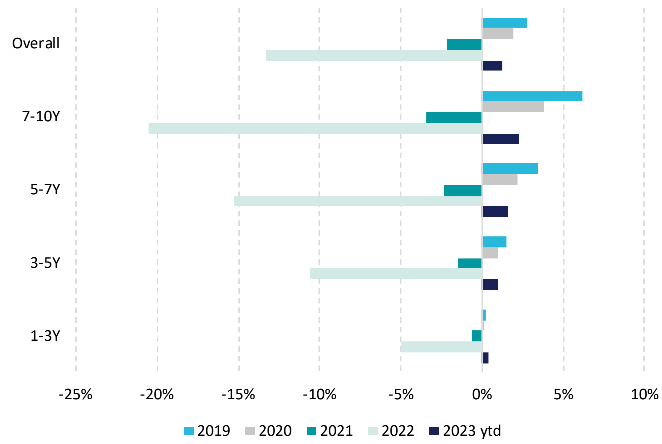


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

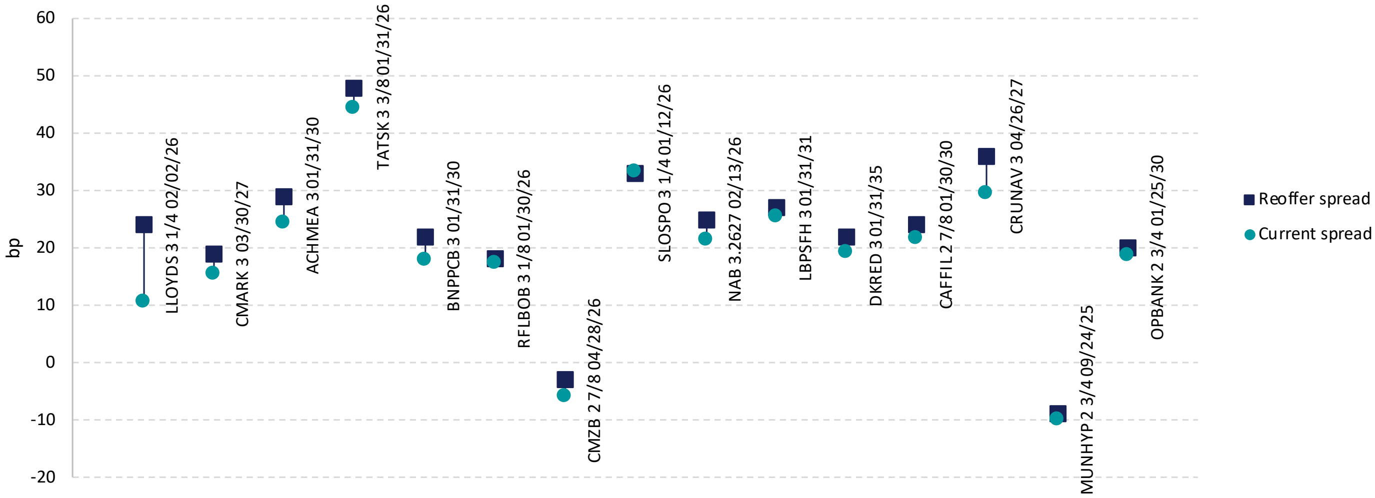
Spread development by country



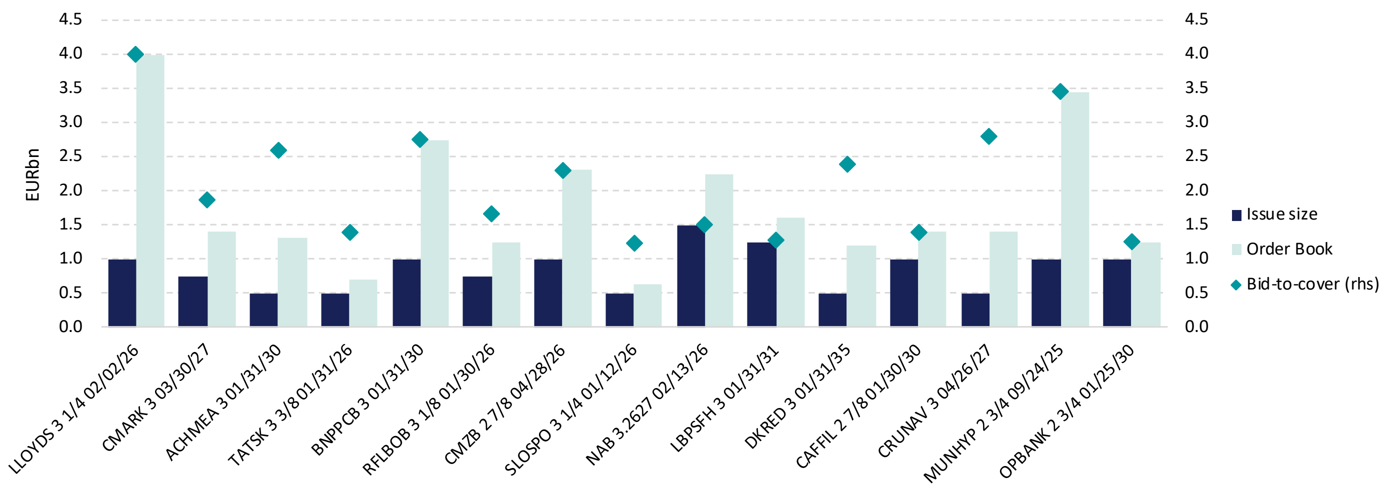
Covered bond performance (Total return)



Spread development (last 15 issues)



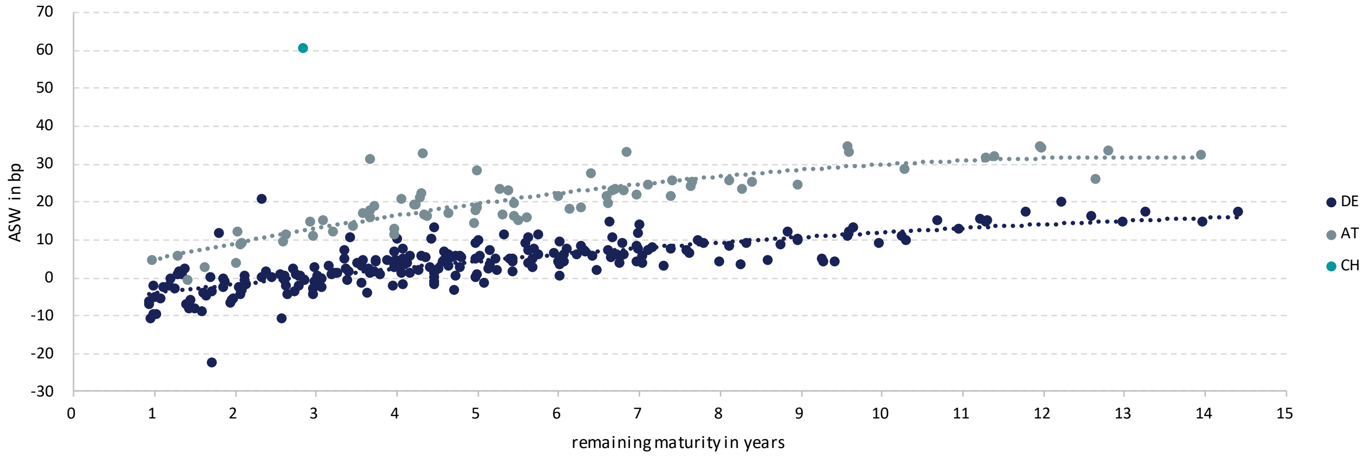
Order books (last 15 issues)



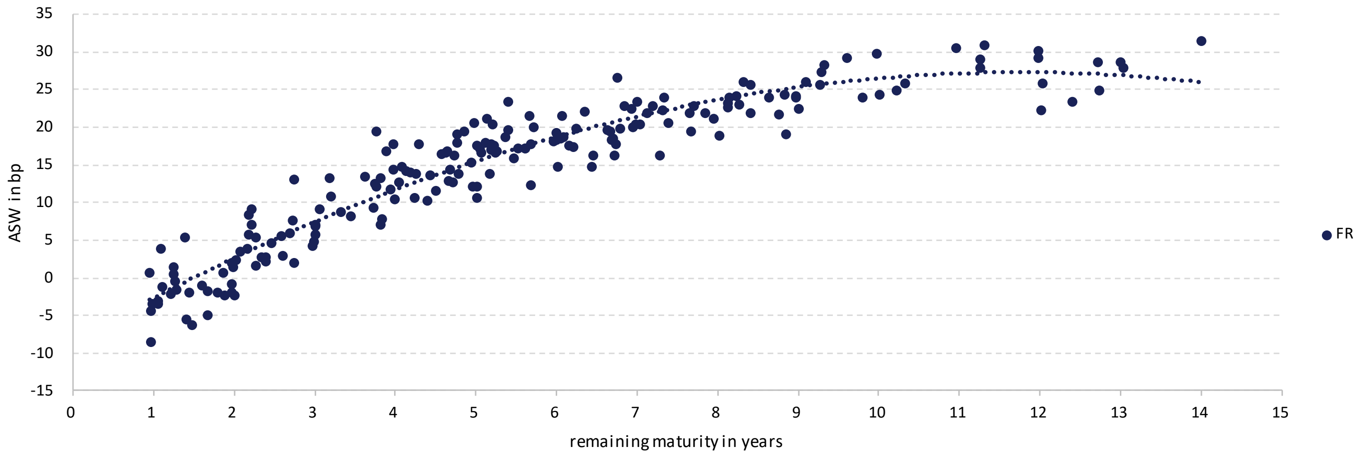
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

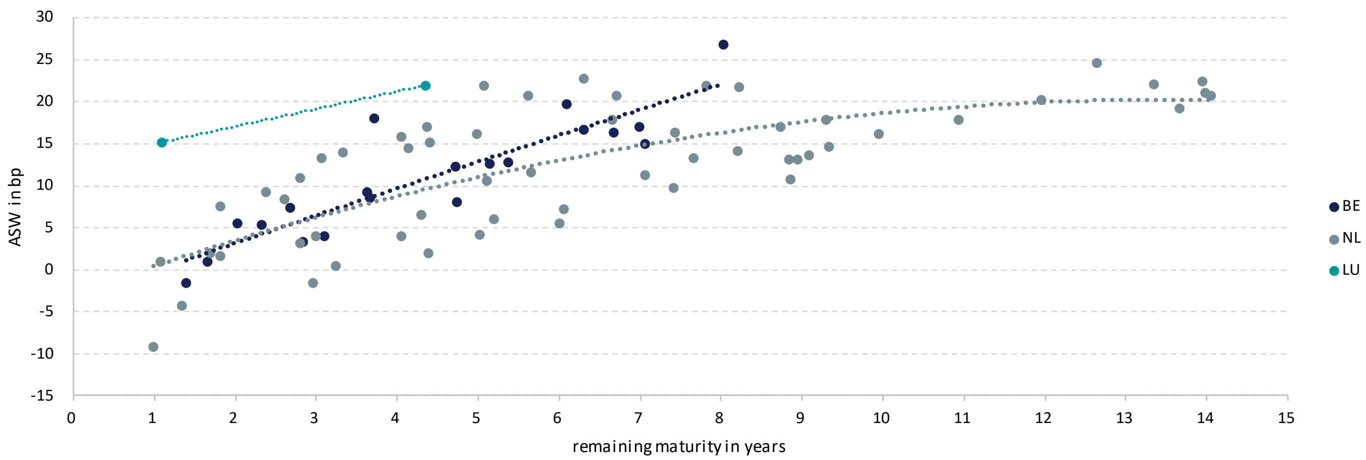
DACH



France

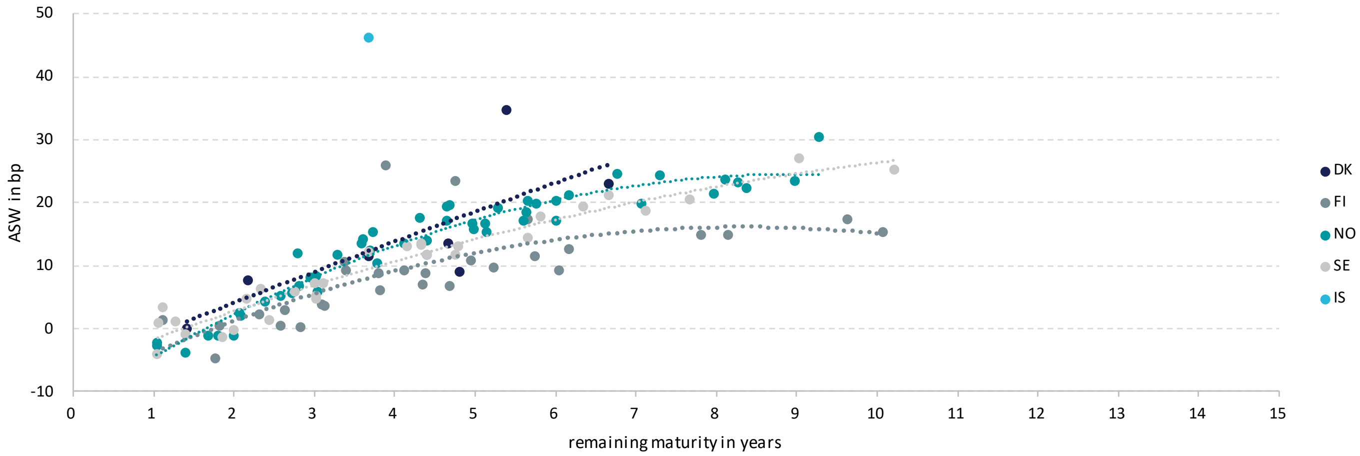


Benelux

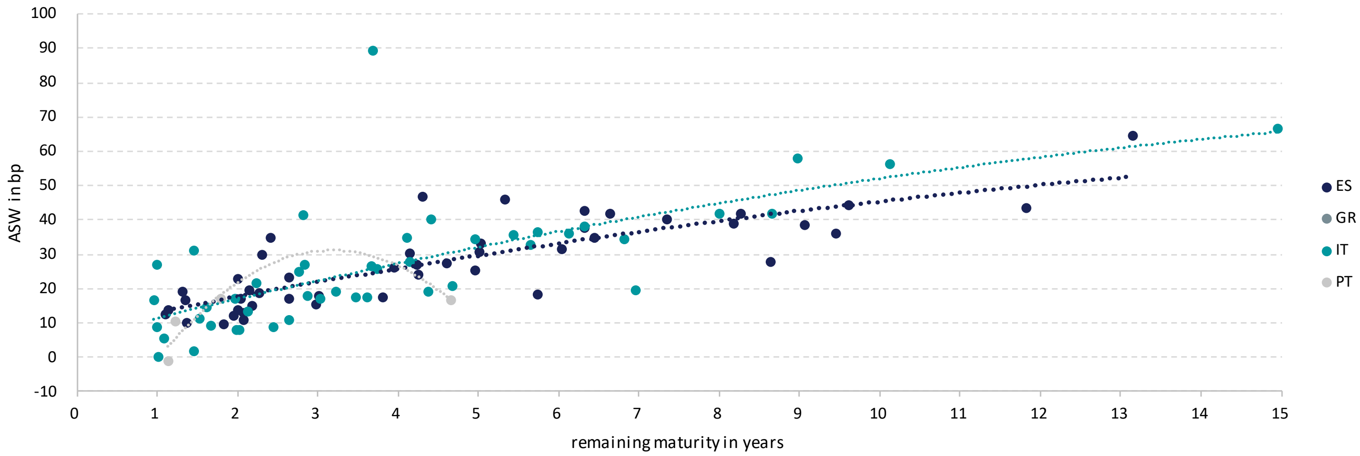


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

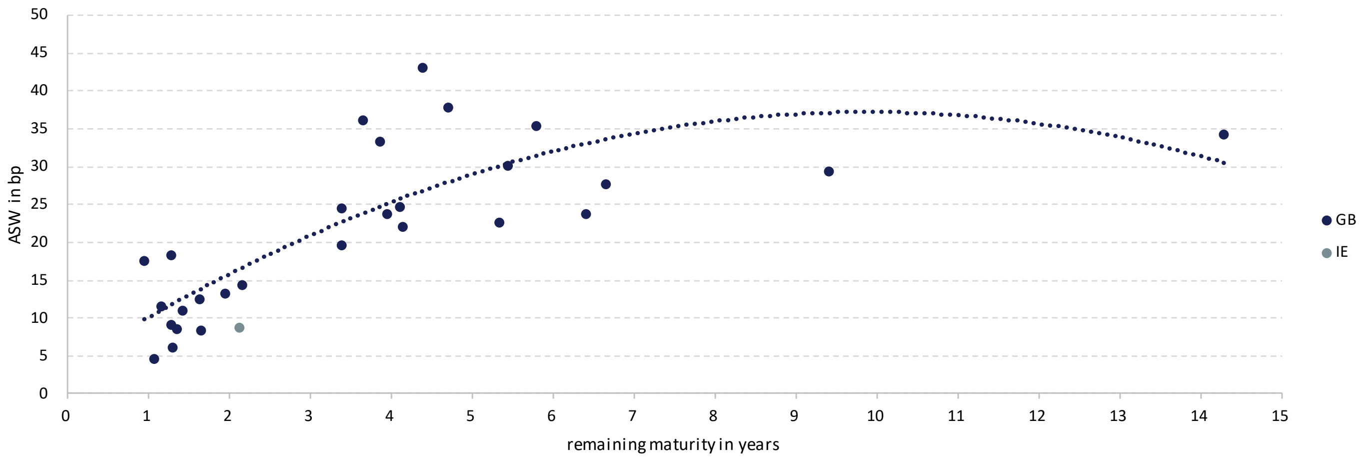
Nordics



Southern Europe

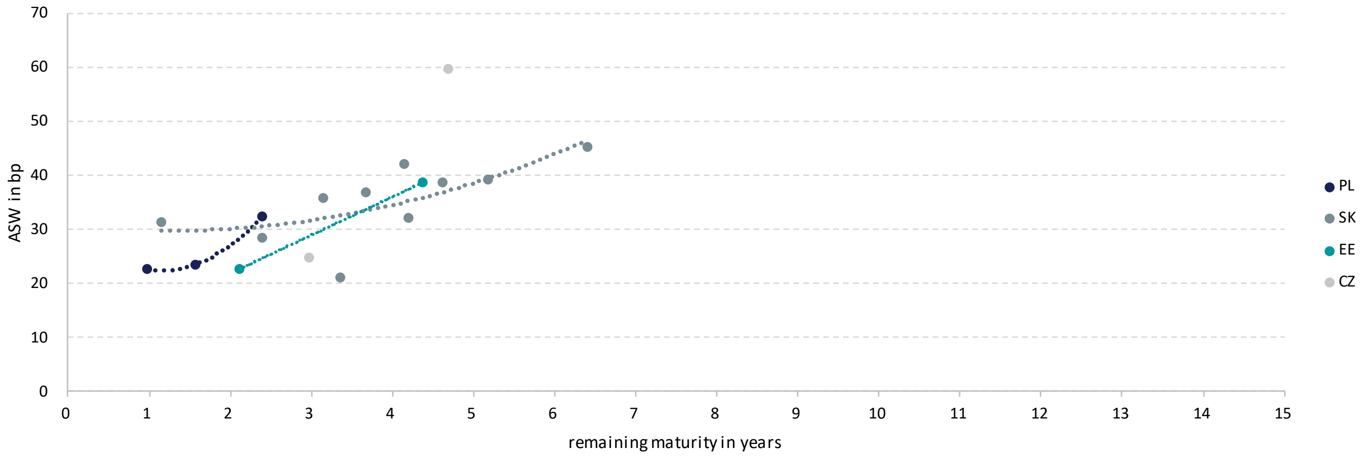


UK/IE

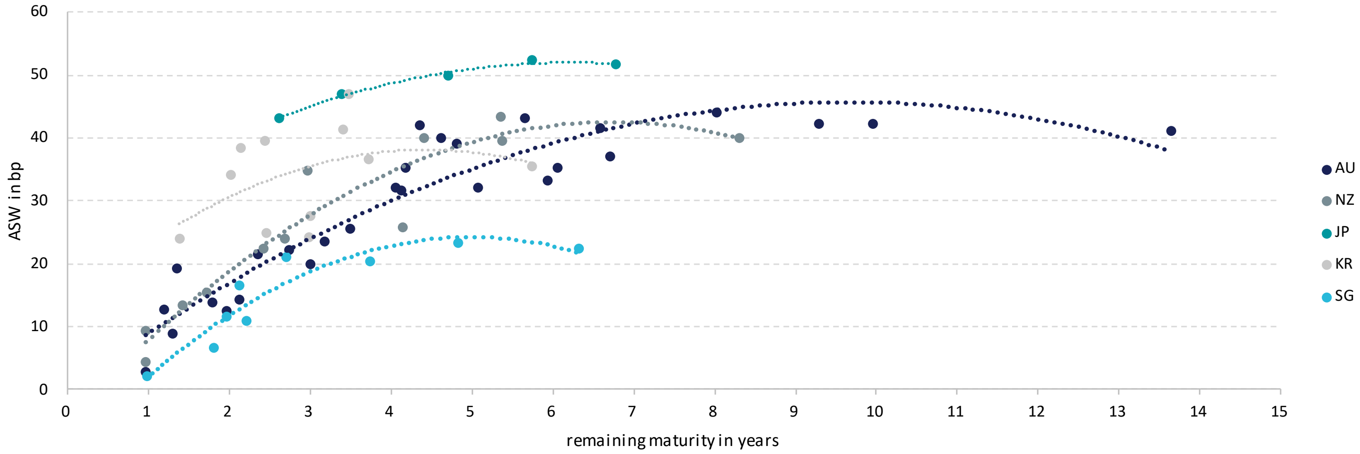


Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

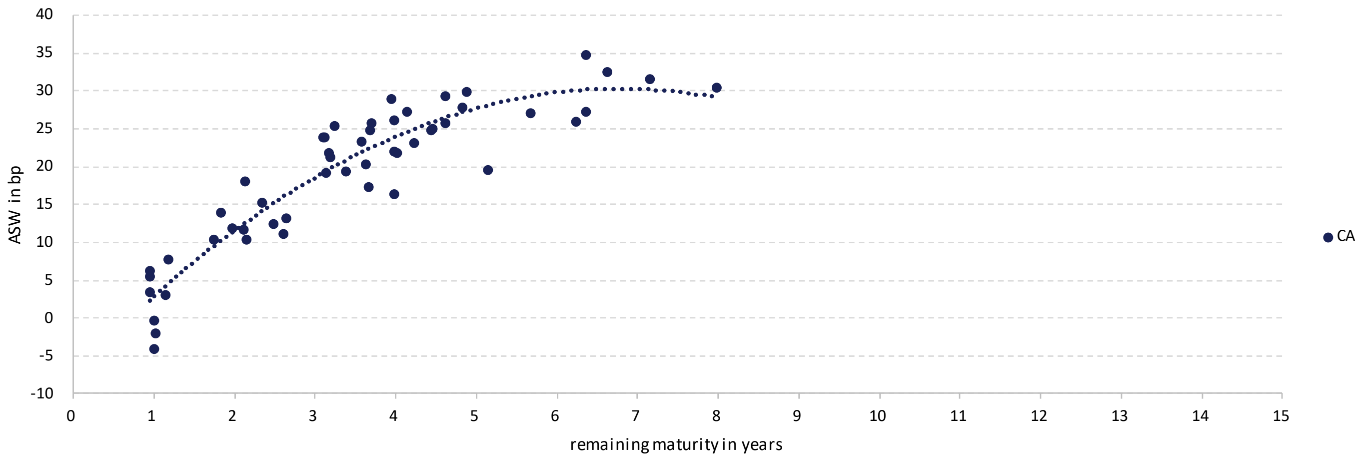
CEE



APAC



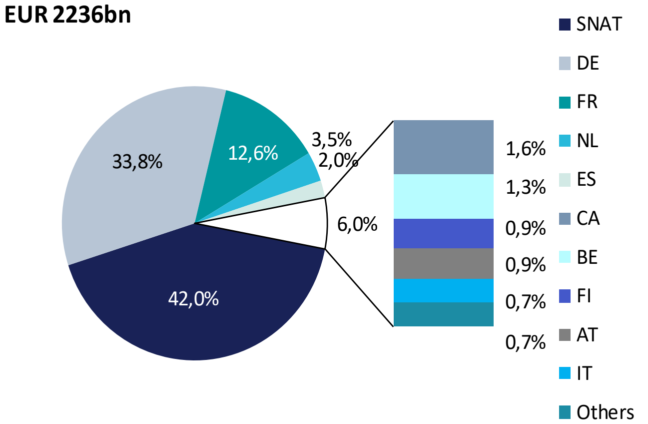
North America



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

Charts & Figures
SSA/Public Issuers

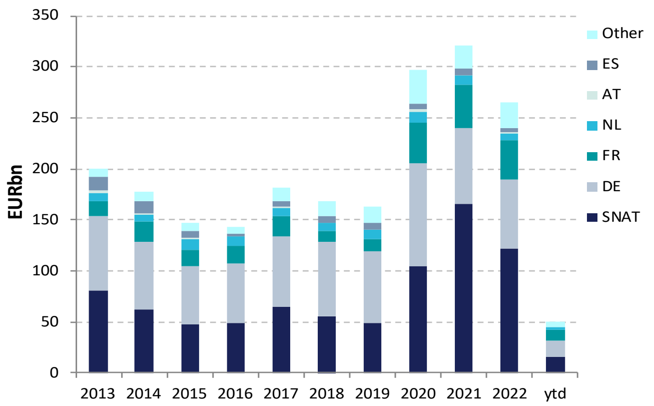
Outstanding volume (bmk)



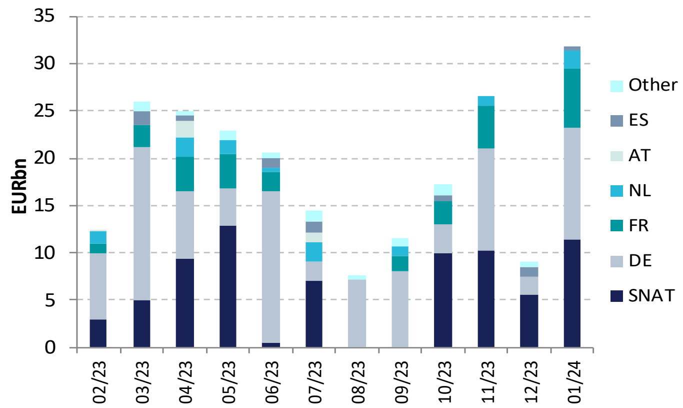
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	940,1	222	4,2	8,2
DE	754,9	556	1,4	6,3
FR	282,6	187	1,5	6,2
NL	78,3	70	1,1	6,5
ES	45,6	60	0,8	4,6
CA	35,7	25	1,4	4,6
BE	28,0	31	0,9	11,8
FI	20,0	23	0,9	5,3
AT	19,8	23	0,9	4,4
IT	15,0	19	0,8	4,8

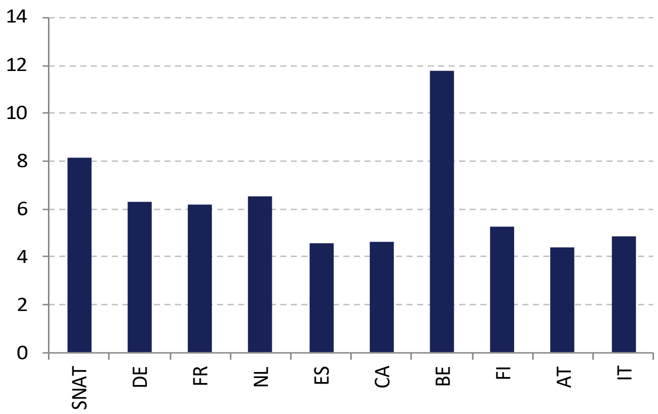
Issue volume by year (bmk)



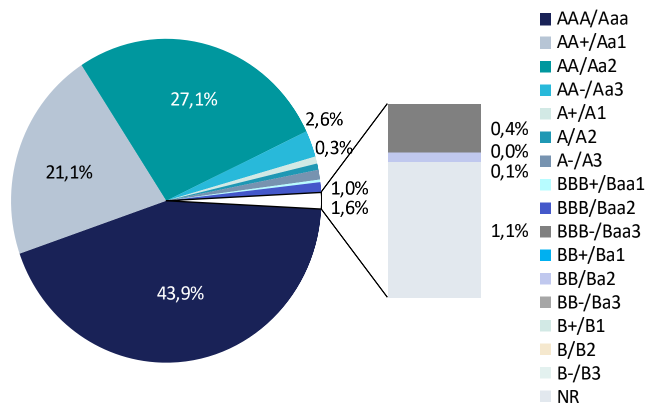
Maturities next 12 months (bmk)



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



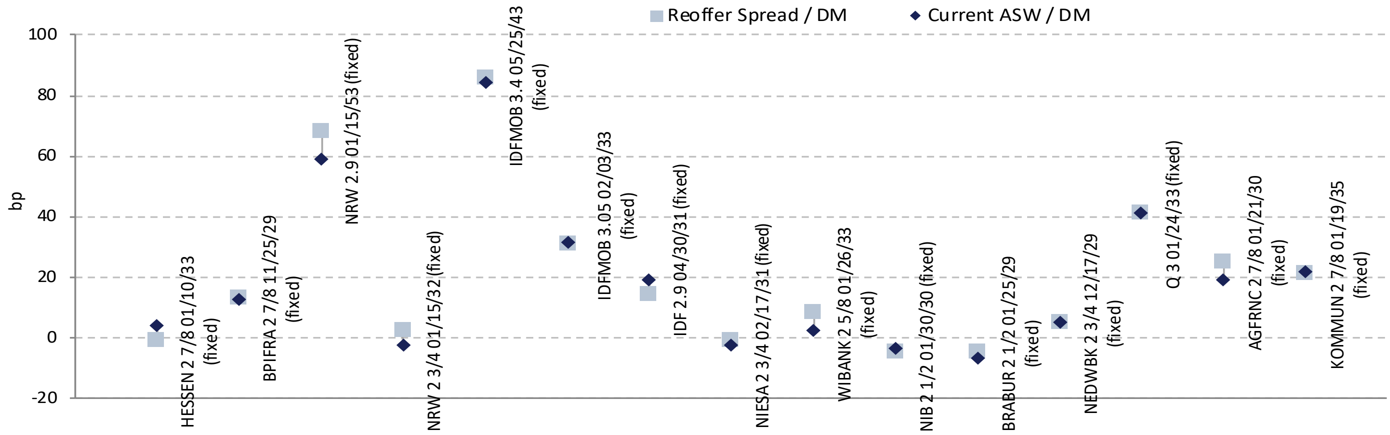
Rating distribution (vol. weighted)



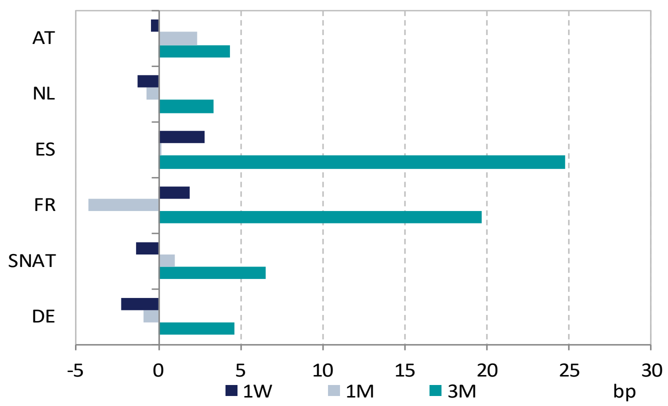
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

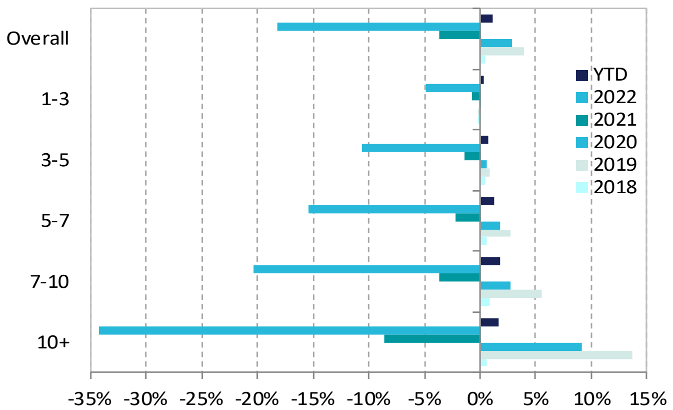
Spread development (last 15 issues)



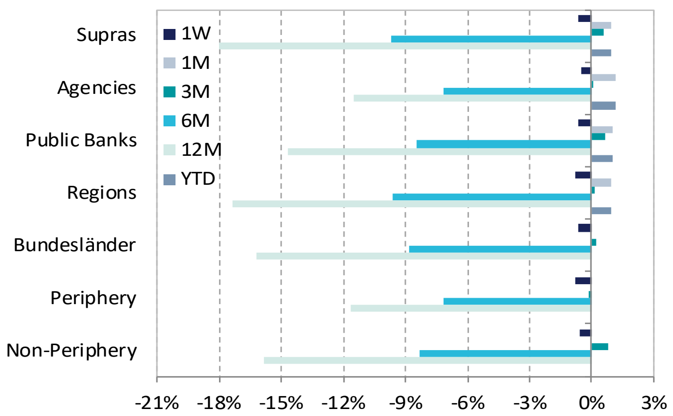
Spread development by country



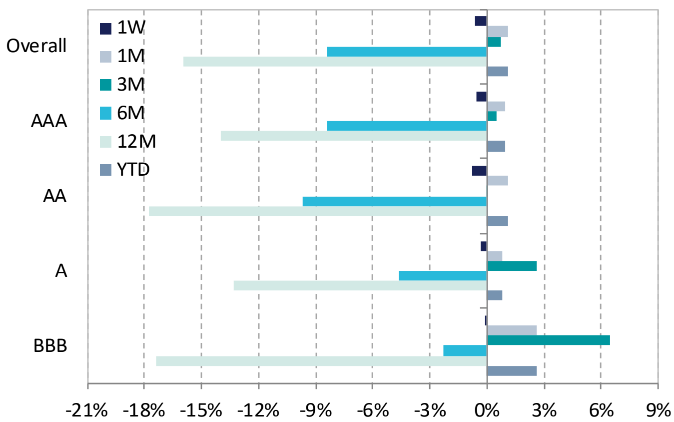
Performance (total return)



Performance (total return) by segments

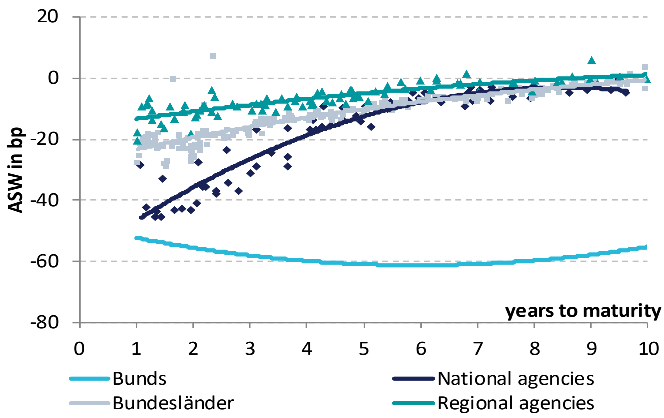


Performance (total return) by rating

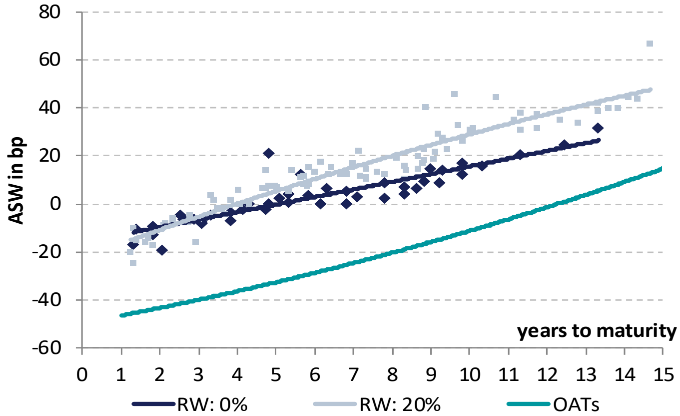


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

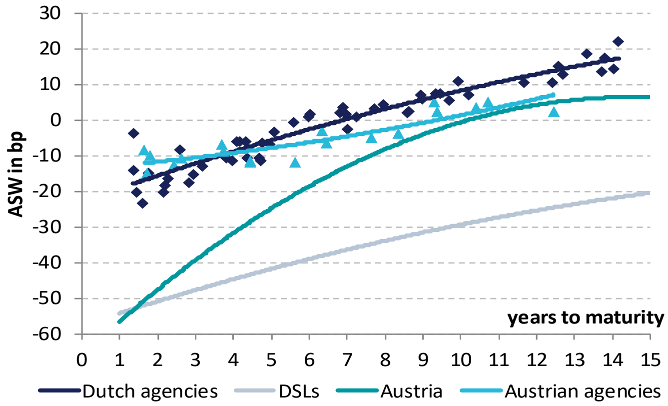
Germany (by segments)



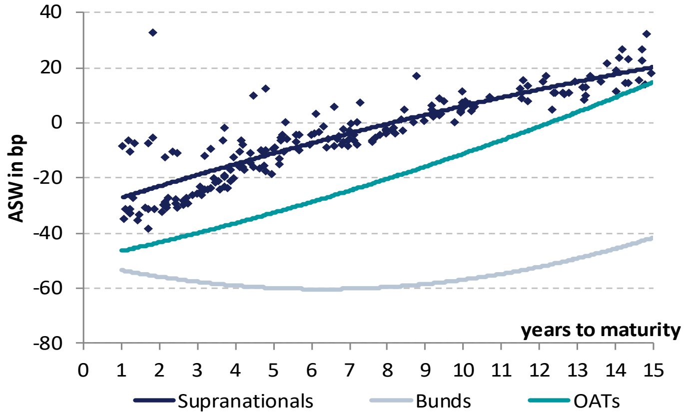
France (by risk weight)



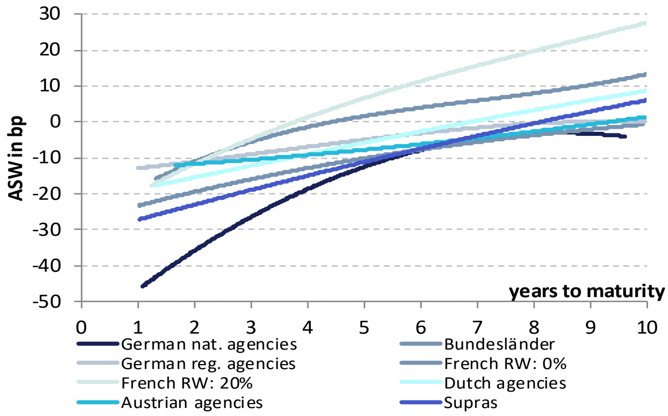
Netherlands & Austria



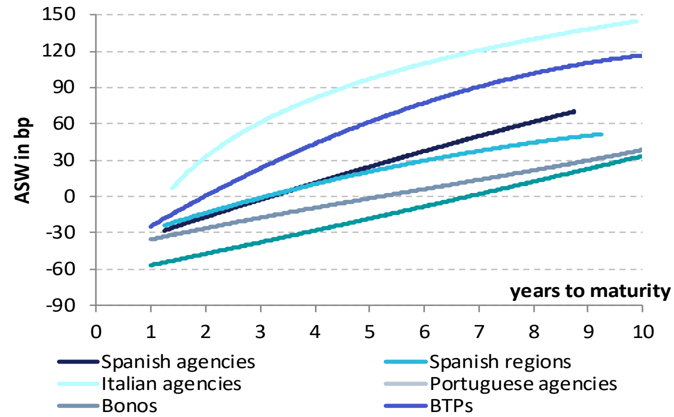
Supranationals



Core



Periphery



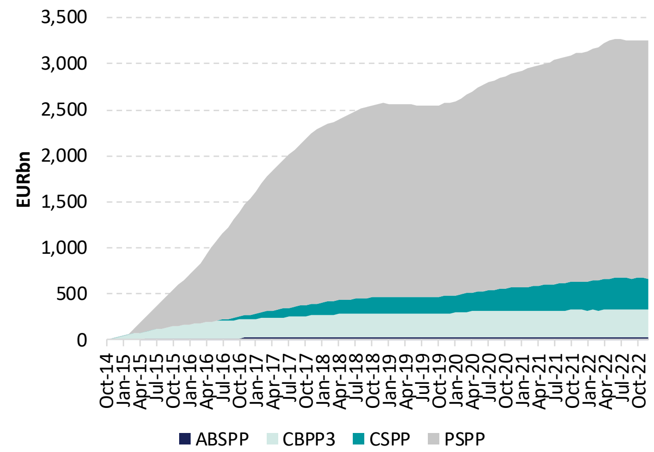
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

ECB tracker

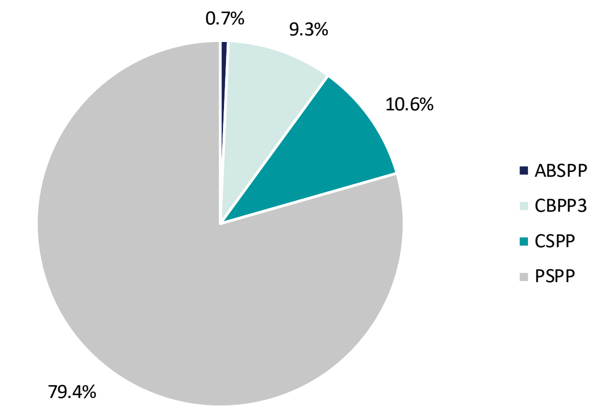
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Nov-22	23,822	302,482	345,039	2,585,720	3,257,063
Dec-22	22,915	301,973	344,119	2,584,666	3,253,673
Δ	-893	-269	-609	+1,398	-373

Portfolio development

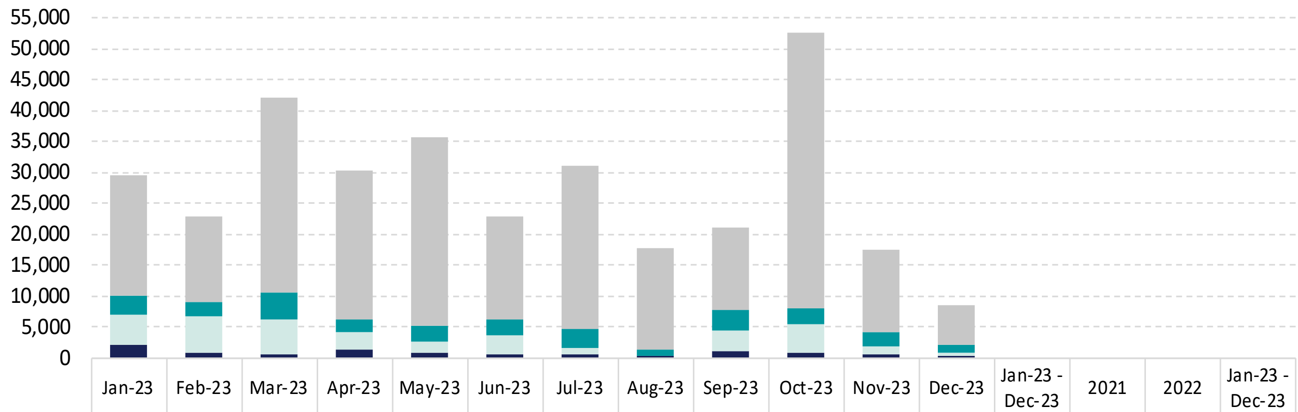


Portfolio structure



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

Expected monthly redemptions (in EURm)

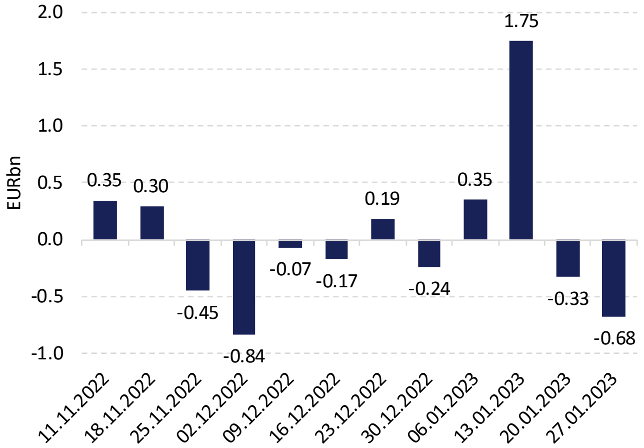


	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-23 - Dec-23	2021	2022	Jan-23 - Dec-23
APP	29,406	22,745	42,019	30,201	35,807	22,842	30,999	17,811	21,185	52,718	17,421	8,512	331,666	247,069	299,122	331,666
PSPP	19,469	13,625	31,494	23,889	30,559	16,619	26,287	16,445	13,367	44,729	13,259	6,336	256,078	188,494	228,585	256,078
CSPP	3,010	2,352	4,219	2,162	2,579	2,557	3,038	986	3,362	2,616	2,342	1,336	30,559	17,134	17,670	30,559
CBPP3	4,786	6,065	5,631	2,937	1,874	3,112	1,170	0	3,346	4,465	1,351	408	35,145	30,143	41,244	35,145
ABSPP	2,141	703	675	1,213	795	554	504	380	1,110	908	469	432	9,884	11,298	11,623	9,884

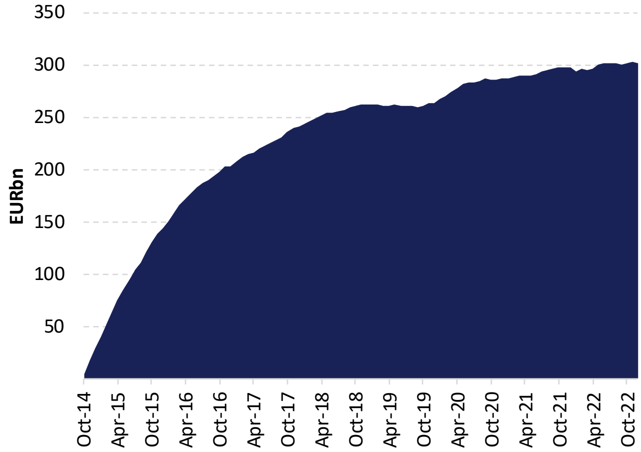
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

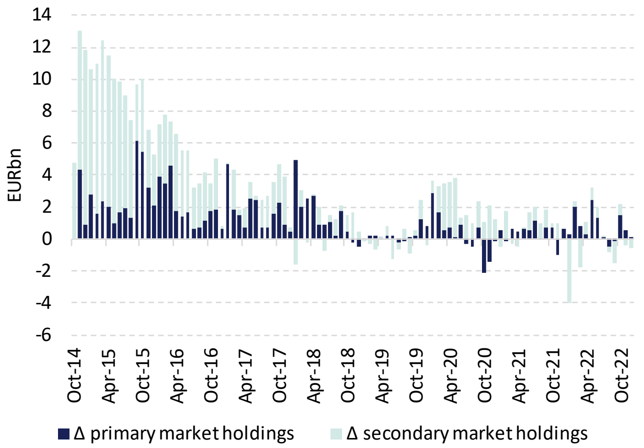
Weekly purchases



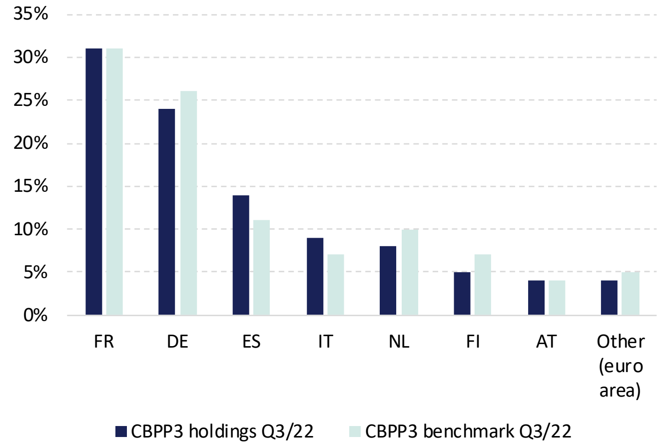
Development of CBPP3 volume



Change of primary and secondary market holdings

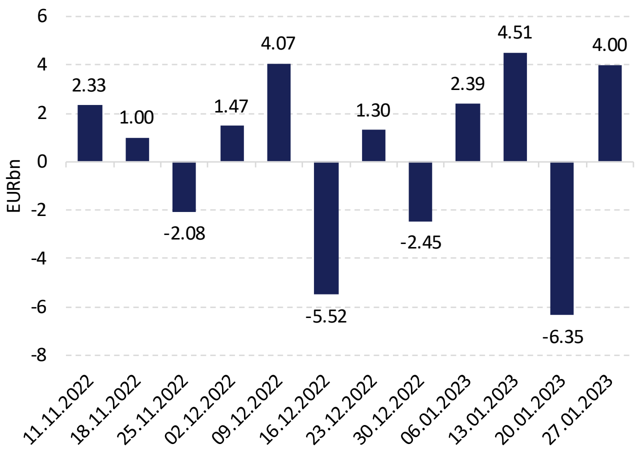


Distribution of CBPP3 by country of risk

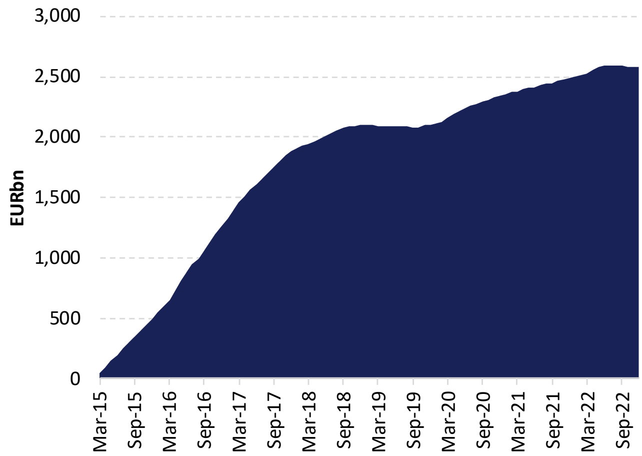


Public Sector Purchase Programme (PSPP)

Weekly purchases



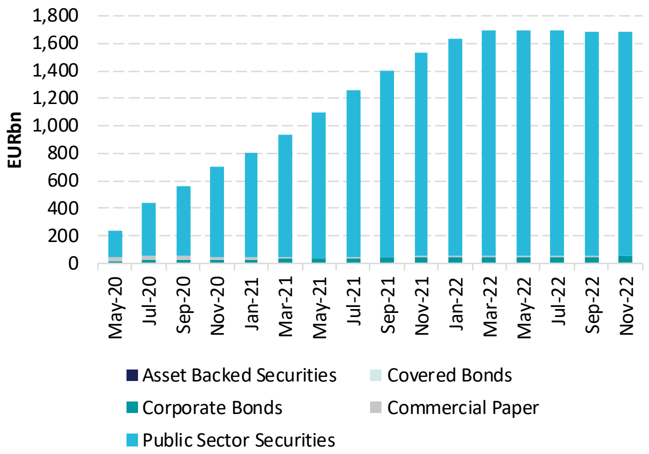
Development of PSPP volume



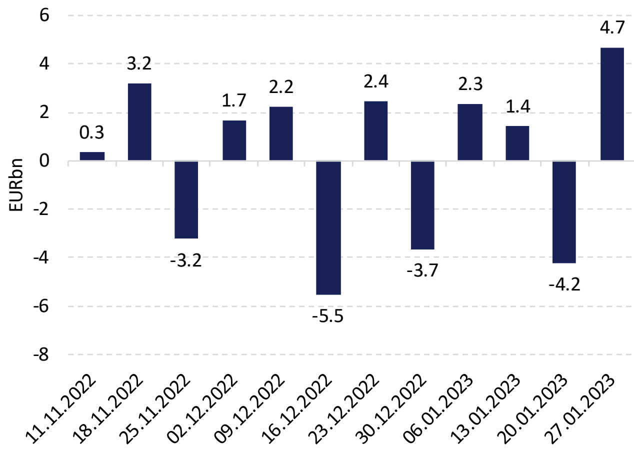
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

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	43,449	-304	2.6%	2.6%	0.0%	7.7	7.3
BE	56,175	-185	3.3%	3.4%	0.1%	6.4	9.5
CY	2,487	19	0.2%	0.1%	0.0%	8.4	8.3
DE	397,704	-3,060	23.7%	24.0%	0.2%	6.8	6.8
EE	256	0	0.3%	0.0%	-0.2%	7.5	7.5
ES	194,758	-200	10.7%	11.7%	1.0%	7.4	7.4
FI	26,208	-1,073	1.7%	1.6%	-0.1%	7.6	7.7
FR	299,751	1,970	18.4%	18.1%	-0.3%	7.8	7.7
GR	39,607	-888	2.2%	2.4%	0.2%	8.2	9.6
IE	25,825	324	1.5%	1.6%	0.0%	8.8	9.7
IT	287,027	-1,243	15.3%	17.3%	2.0%	7.2	6.9
LT	3,222	-27	0.5%	0.2%	-0.3%	9.7	8.9
LU	1,898	14	0.3%	0.1%	-0.2%	6.0	6.7
LV	1,890	0	0.4%	0.1%	-0.2%	8.1	7.7
MT	606	2	0.1%	0.0%	-0.1%	10.6	8.8
NL	84,558	128	5.3%	5.1%	-0.2%	7.7	8.6
PT	34,425	177	2.1%	2.1%	0.0%	6.8	7.2
SI	6,586	25	0.4%	0.4%	0.0%	8.7	9.1
SK	7,966	0	1.0%	0.5%	-0.6%	8.3	7.9
SNAT	145,915	2	10.0%	8.8%	-1.2%	10.4	8.8
Total / Avg.	**1,660,313**	**-4,320**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**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
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
35/2022 ♦ 16 November	▪ Covered bond jurisdictions in the spotlight: a look at Austria ▪ Development of the German property market ▪ EIB goes Blockchain… again!
34/2022 ♦ 09 November	▪ Covered bond jurisdictions in the spotlight: a look at Norway ▪ Tenth edition of the NORD/LB Issuer Guide Covered Bonds ▪ SSA primary stats ytd before the final sprint
33/2022 ♦ 26 October	▪ Repayment structures on the covered bond market: EU harmonisation project consigns hard bullets to the shadows ▪ The debt brake at Laender level
32/2022 ♦ 19 October	▪ ECB preview: +75bp and the balance sheet question ▪ EBA Risk Dashboard paints a robust picture in Q2 2022 ▪ An overview of the German Laender
31/2022 ♦ 12 October	▪ The covered bond rating approach of S&P ▪ Benchmark indices for German Laender
30/2022 ♦ 28 September	▪ Focus on covered bond jurisdictions: Singapore in the spotlight ▪ German Laender: more ESG issues on the horizon?
29/2022 ♦ 21 September	▪ ECBC publishes annual statistics for 2021 ▪ Update: Gemeinschaft deutscher Laender (Ticker: LANDER)
28/2022 ♦ 07 September	▪ Primary market: A little more to come! ▪ ECB: PEPP visibly active as first line of defence

NORD/LB: Markets Strategy & Floor Research
NORD/LB: Covered Bond Research
NORD/LB: SSA/Public Issuer Research
Bloomberg: RESP NRDR <GO>

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 Q3/2022 (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

Fixed Income Specials:

ESG-Update 2022

ECB interest rate decision: delivered as expected?

ECB acts as the 'House of Hikes' - or: Winter is coming!

ECB frontloads rate hike by +50bp and breaches pre-commitment

ECB ready for lift-off: Every journey starts with a first step

NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

Appendix
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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

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

Treasury

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