Happy New Year 2024!
May we be blessed at all times
If you want to give us any feedback:
msfr@nordlb.de

Covered Bond & SSA View

NORD/LB Floor Research

10 January 2024 ♦ 01/2024
Marketing communication (see disclaimer on the last pages)

Agenda

Floor analysts:

Covered Bonds/Banks

Dr Frederik Kunze
frederik.kunze@nordlb.de

Lukas Kühne
lukas.kuehne@nordlb.de

SSA/Public Issuers

Dr Norman Rudschuck, CIIA
norman.rudschuck@nordlb.de

Christian Ilchmann
christian.ilchmann@nordlb.de

Lukas-Finn Frese
lukas-finn.frese@nordlb.de

NORD/LB:
Floor Research

NORD/LB:
Covered Bond Research

NORD/LB:
SSA/Public Issuers Research

Bloomberg:
RESP NRDR <GO>

Market overview
Covered Bonds

Authors: Dr Frederik Kunze // Lukas Kühne

Primary market: a start to the new year that, in many ways, was to be expected...
Looking at how 2024 has begun, it can certainly be said that, in many ways, the first few trading days of the new year have been as expected. Things got off to a lively start on the first trading day of the year with no real phase of weakness in terms of primary market activities so far, although the usual interruptions due to market-relevant economic indicators did crop up at the start of the year. The market was opened up on 2 January by a trio of deals originally announced back in December: LBBW (dual tranche; 19 December), Commerzbank (20 December) and Erste Group Bank (28 December). The issuance volume of EUR 3.8bn compared with final orders totalling EUR 6.3bn, while the new issue premium averaged +8.3bp. In this respect, the start to the year was largely in line with expectations, with a high volume of new deals meeting "fresh" demand – although in turn this likewise "demands" significant spread premiums. At least that is how we saw the first day of trading. After six trading days, primary market deals in the benchmark segment now total EUR 18.3bn overall (split across 20 bonds). The largest share of this came from France (EUR 7.0bn; six bonds), while Germany accounts for a volume of EUR 6.3bn (nine bonds). The group of most active jurisdictions so far in the new year is rounded off by the Netherlands (EUR 2,5bn; dual tranche from ING Bank on 03 January), Austria (EUR 1.8bn; two deals) and Italy (EUR 750m; Mediobanca on 08 January). At this point, we would also like to take note of the composition of the issued maturities. For example, with CA Home Loan SFH (FR) and CRH (FR), two French issuers dipped their toes into the long-term maturity range (10.0y).

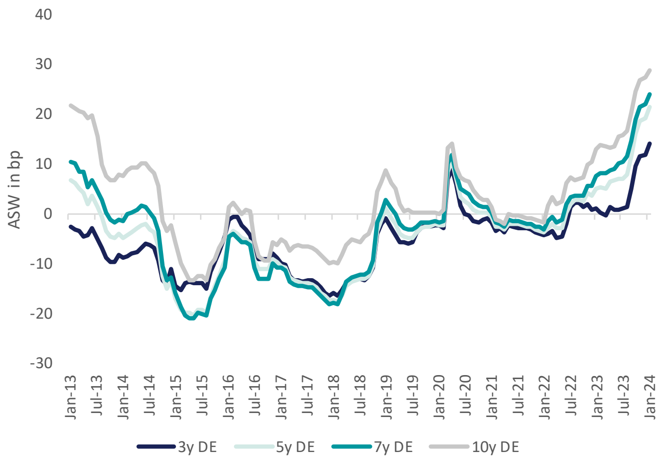
Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
PBB	DE	09.01.	DE000A31RJ45	3.0y	0.50bn	ms +58bp	- / Aa1 / -	-
BS Schwäbisch Hall	DE	09.01.	DE000A3824G4	5.0y	0.50bn	ms +33bp	- / Aaa / -	X
BPCE SFH	FR	08.01.	FR001400N6K4	7.0y	1.50bn	ms +47bp	- / Aaa / AAA	-
BPCE SFH	FR	08.01.	FR001400N6J6	3.0y	1.00bn	ms +25bp	- / Aaa / AAA	-
Mediobanca	IT	08.01.	IT0005579807	4.8y	0.75bn	ms +65bp	AA / - / -	-
Bayerische Landesbank	DE	08.01.	DE000BLB6J10	6.5y	0.75bn	ms +29bp	- / Aaa / -	-
CRH	FR	04.01.	FR001400N5C3	10.0y	0.75bn	ms +49bp	AAA / Aaa / -	-
CRH	FR	04.01.	FR001400N5A7	5.0y	1.25bn	ms +36bp	AAA / Aaa / -	-
NORD/LB	DE	04.01.	DE000NLB4Y34	7.0y	0.50bn	ms +38bp	- / Aa1 / -	X
CA Home Loan SFH	FR	03.01.	FR001400M4Z8	10.0y	1.25bn	ms +50bp	- / Aaa / AAA	X
CA Home Loan SFH	FR	03.01.	FR001400N327	4.0y	1.25bn	ms +30bp	- / Aaa / AAA	-
ING Bank	NL	03.01.	XS2744125266	8.0y	1.25bn	ms +39bp	AAA / Aaa / AAA	-
ING Bank	NL	03.01.	XS2744125001	4.0y	1.25bn	ms +25bp	AAA / Aaa / AAA	-
DZ HYP	DE	03.01.	DE000A351XU7	7.1y	0.75bn	ms +33bp	- / Aaa / -	-
Aareal Bank	DE	03.01.	DE000AAR0405	4.3y	0.50bn	ms +52bp	- / Aaa /	-
UniCredit Bank Austria	AT	03.01.	AT000B049952	4.8y	0.75bn	ms +47bp	- / Aaa / -	X
LBBW	DE	02.01.	DE000LB39AS0	7.2y	0.75bn	ms +30bp	- / Aaa / -	-
Commerzbank	DE	02.01.	DE000CZ439P6	7.0y	1.00bn	ms +38bp	- / Aaa / -	-
Commerzbank	DE	02.01.	DE000CZ439N1	3.0y	1.00bn	ms +23bp	- / Aaa / -	-
Erste Group Bank	AT	02.01.	AT0000A39GD4	7.0y	1.00bn	ms +50bp	- / Aaa / -	-

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

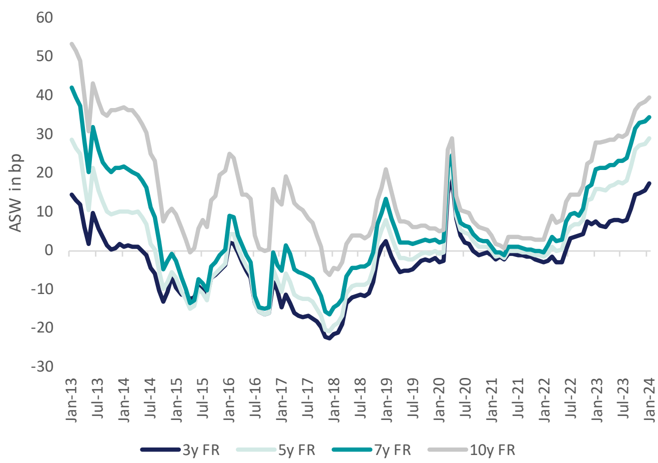
...and that does not deserve to be downplayed

We are also inclined to speak of a long deal when it comes to the 8y covered bond placed by ING Bank (NL). The average initial residual term to maturity of the fresh supply so far in 2024 amounts to 5.9 years. While this might not yet herald a paradigm shift (full year 2023: 5.2 years; January 2023: 5.7 years), the slightly longer terms are also offset by a comparatively high level of new issue premiums. The average new issue premium of the deals placed so far in 2024 is +8.6bp. Based on the first 20 deals in previous years, the values by comparison are +6.2bp (2023), +1.4bp (2022) and 0.0bp (2021). In conjunction with historically high spreads, this level of new issue premiums is quite remarkable and reveals the inevitable consequence of a market environment in which investor-side liquidity is restricted and the primary market is having to cope without demand from the Eurosystem for the first time in many years. This increases the effort required by issuers and syndicate banks to find the right price points, which can also lead to an increased execution risk. Communicating the price, as well as other specific characteristics of the deals, can (so to speak) tip of the scales in this market environment. We assume that there will no fundamental changes to this situation over the coming trading days. With regard to the specific characteristics of the deals, it has not escaped our attention that some issuers have now turned to the green format. For example, this year we have already registered four green covered bonds (UniCredit Bank Austria, CA Home Loan SFH, NORD/LB and Bausparkasse Schwäbisch Hall) on the market. Overall, green bonds have already reached an impressive total of EUR 3.0bn. In summary, this promising start to primary market activities in 2024 should by no means be downplayed. In view of this assessment, we also take encouragement from developments on the secondary market. On balance, fresh supply – featuring high new issue premiums as well – is performing solidly. The majority of deals have tightened during trading, although, as expected, the curves have drifted a bit further out. Other banks are following the example of some French issuers by testing the waters in longer maturity segments. In this context, from our point of view it is noteworthy that the first issuance of a 10y Pfandbrief since mid-June 2023 is apparently set to come in the form of an inaugural public Pfandbrief deal from SaarLB in the EUR benchmark segment.

Covered bond spreads: Germany (generic)



Covered bond spreads: Germany (generic)



Source: Market data, Bloomberg, NORD/LB Floor Research

vdp Issuance Climate: December brings no improvement in sentiment on the Pfandbrief market

The vdp Issuance Climate, published in December 2023, reports on the mood of its member banks with regard to Pfandbriefe and unsecured bank bonds. While the score of the Issuance Climate for Pfandbriefe declined in December 2023 to -23 points (June 2023: -14 points), the index for unsecured bank bonds actually recorded an improvement to -21 points (June 2023: -29 points). Looking at the first half of 2024, the surveyed capital market experts see a continuation of depressed lending, lower ECB demand, achievable spread levels and realistic oversubscription rates as negative factors for the Pfandbrief market. However, their assessment of investor demand for Pfandbriefe in the first half of 2024 is significantly more positive. Compared with June 2023, the score improved from +14 to +37 points in December. Despite a market environment that remains challenging, vdp member banks expect a new issuance volume of EUR 49.5bn in 2024, which would correspond to a net new supply of EUR 4.5bn. Over 83% of the expected new deals are mortgage-backed Pfandbriefe, with public sector Pfandbriefe accounting for a share of just under 16%. In the ESG segment, the capital market experts calculate a new issuance volume of EUR 6.4bn across 2024 as a whole. This figure includes a sum of EUR 5.3bn in green Pfandbriefe and EUR 1.1bn in social Pfandbriefe. The member banks anticipate improved sales opportunities for unsecured bank bonds over the first six months of 2024. Accordingly, the investor demand score for unsecured bank bonds has also improved to +24 points (June 2023: 0 points) in the first half of 2024.

Issuer in the spotlight: CAFFIL presents issuance plans for 2024

In its funding outlook for 2024, which was published in December, the covered bond issuer CAFFIL offers a first glimpse at its funding plans for the new calendar year. Overall, CAFFIL is planning to issue covered bonds in the amount of EUR 4.0-5.5bn, offset by maturities of EUR 5.0bn. In addition to EUR benchmark deals, CAFFIL also intends to issue covered bonds in the form of private placements in 2024. In this context, the focus is on investors with a particular interest in longer-dated covered bonds. ESG bonds are expected to account for 25% of all deals in 2024, further strengthening CAFFIL's footprint in this segment. The volume and form of the expected new issues dovetail nicely with our own vision of the French covered bond market in 2024. Here, we expect a new issuance volume of EUR 36.0bn in the EUR benchmark segment (net supply: EUR 12.23bn). For further information, please refer to our Covered Bond Outlook 2024.

Deutsche Hypo Real Estate Economic Index: Stabilisation at low level

At the end of last year, Deutsche Hypo published its Real Estate Economic Index for December 2023. At 70.9 points, the index value is 0.3% below the previous month and has therefore remained largely stable. While the office climate registered the most significant decline (-2.6%) in December, there was a slight improvement in sentiment for the Logistics (+1.0%), Investment (+1.3%) and Retail (+2.0%) climates. Having declined by -25.5%, the Office climate also suffered the greatest losses over the year. In contrast, the prospects for the Retail (+30.8%) and Residential climates (+28.7%) improved significantly. Frank Schrader, Head of Real Estate Finance at Deutsche Hypo, expects the market to recover after the phase of uncertainty, but is still not totally sure as to whether this development will kick in during 2024 for certain segments.

EBA publishes annual review of the European banking system

In December 2023, the EBA published its annual review of the risk landscape on the EU banking market (cf. press release). According to the EBA, the banking sector has shown its resilience following the turmoil in March 2023. Despite the high asset quality of bank balance sheets, subdued growth and heightened interest rates pose a number of risks. In particular, the impacts on real estate markets led to increased risks in the banking sector. This weakness, which resulted in reduced demand for lending and negative growth in outstanding loan volumes in the first half of 2023, has the potential to bring about higher write-downs at banks. Conversely, NPL ratios have recently remained stable, although larger inflows were recorded in the first six months of 2023. Due to shorter interest rate commitments, repricing in the CRE segment is more advanced than is the case for the residential real estate segment. The effects on the real estate market also have a direct influence on the covered bond market and the cover pools of issuers of covered mortgage bonds. High CRE exposures in the cover pools of certain covered bond issuers are, in particular, a focus of the market.

Shinhan Bank: new player on the covered bond market

Shinhan Bank, a newcomer from South Korea, has evidently used the new year as an opportunity to access the EUR benchmark segment. Shinhan Bank is a wholly owned subsidiary of Shinhan Financial Group Co., Ltd and, in its role as a universal bank, offers its customers a broad portfolio of financial services. According to Moody's, Shinhan Bank was the second-largest bank in South Korea in terms of consolidated assets as at year-end 2022, when it boasted a market share of around 13%. Moody's recently awarded its top rating Aaa (collateral score: 4.0%) for the "Shinhan Mortgage Covered Bonds". Meanwhile, over at Fitch, the rating experts awarded the inaugural bond from Shinhan Bank (EUR 500m) a rating of AAA (outlook: stable). It should also be noted that Shinhan Bank opted for a green format for its first foray onto the market. In so doing, South Korea's record of a 100% ESG market for covered bonds, which has sort of become the jurisdiction's USP, has been maintained. The issuer has also emphasised its self-motivation with a view to achieving a high level of transparency in the covered bond market by joining the Covered Bond Label.

Moody's: positive impetus for energy-efficient real estate in the Netherlands

With effect from 1 January 2024, new legal lending guidelines will come into force in the Netherlands. The risk experts at Moody's have looked at the requirements, which aim to generate positive impetus for investments in energy-efficient homes, in a recent comment piece and also took the opportunity to discuss the implications for covered bonds. The new regulations firstly allow higher amounts of debt when purchasing energy-efficient properties. For example, the maximum amount of debt a borrower can take on for the best possible EPC label has been increased by EUR 50,000. Secondly, the capacity to borrow the capital required for "energy-saving" renovations has also been topped up. According to the risk experts at Moody's, the higher leverage ratios resulting from these changes are likely to be offset by rising house prices for energy-efficient properties. As such, the working assumption is that these specific cover assets will not be subject to any deterioration in credit quality. However, the situation is likely to be different when it comes to energy inefficient properties. From the perspective of Moody's, the value of the properties in question must also fall as a result of lower demand, which would ultimately amount to a deterioration in credit quality.

RLB Vorarlberg opens up the market for EUR sub-benchmarks

The first sub-benchmark in 2024 was placed by Raiffeisen Landesbank Vorarlberg (AT), which sought investors for a deal worth EUR 300m (4.0y). The sub-benchmark appeared on trading screens with an initial guidance of ms +56bp last Tuesday. At EUR 730m, the order book was substantially oversubscribed, meaning that the deal was eventually priced at ms+51bp.

In light of recent events: Covered Bond Directive and equivalence of "third countries"

Some investors have taken the start of the new year or repricing movement that has been progressing for several months now as an opportunity to rethink their involvement in covered bonds outside the scope of the EU Covered Bond Directive (CBR). Alongside the aspect of relative spread attractiveness, differing regulatory regimes must also be taken into account here. In this context, for example, the Capital Adequacy Regulation (CRR) in Article 129 clearly refers exclusively to those covered bonds that fall within the scope of the CBR. Conversely, this means that covered bonds without any "EEA relevance" can, pursuant to Articles 120 and 121 CRR, carry a risk weight of 20% in the best-case scenario. Based on the currently applicable requirements, we classify the universe of outstanding EUR benchmarks and EUR sub-benchmarks, including with regard to the KSA risk weights and applicability in the context of LCR management, as part of our NORD/LB Issuer Guide Covereds 2023, among other publications. In actual fact, changes to this situation could potentially come about in the near future, which, in theory at least, could also lead to preferred risk weighting for covered bonds from third countries. As early as March of last year, a position paper prepared by the "ECBC Global Issues Working Group" was published, which from our point of view offers an excellent summary of the current state of discussions on this topic, in addition to appropriately presenting the European Commission's review process with regard to equivalence treatment in the context of the covered bond market.

Internal matters: UK Covered Bond Round Table

In the wake of Brexit, the UK has become a "third country" when it comes to treatment of covered bonds. This also means that in a best-case scenario, a risk weight of 20% applies to bonds from this jurisdiction in the context of the CRR. However, in our opinion, this regulatory classification should by no means be considered as excessively bleak for this sub-market of the EUR benchmark segment. After all, the best possible regulatory treatment must also be contextualised by considering a range of other factors. This was clearly demonstrated to us in 2023. With this in mind, we are delighted to have had the opportunity to discuss this and other features of the UK covered bond market as part of our "UK Covered Bond Round Table" event, held in partnership with The Covered Bond Report at our NORD/LB London branch towards the end of last year. You can read the full discussion back in your own time here. At this stage, we would just like to thank all participants again. The diverse range of perspectives of the market for UK covered bonds offered during the event promises an exciting 2024!

Market overview SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann // Lukas-Finn Frese

Review of 2023

In the last issue for 2023, we presented our Outlook for 2024. In the SSA segment, these will be largely determined by the funding needs of major players (EU, KfW, EIB and German Laender), the large number of small and medium-sized public sector issuers and the upcoming interest rate reversal by the ECB halfway through the year. We therefore consider that both supply and demand will be critical for the new year for a variety of reasons. This is also true, in particular, for the still uncertain level of interest rates. With regard to this, we suggest you read the relevant information on the ECB's most recent decision in our NORD/LB Fixed Income Special in detail and our separate article in this issue.

Selected German funding figures in 2024

The year has only just begun, making it even more worth looking at the planned funding figures that are publicly accessible to date. Following yet another extremely successful year for KfW in 2023, in which it raised a new record figure of circa EUR 90bn in funding, it now plans to raise EUR 90-95bn in 2024. Of this figure, EUR 10-13bn is expected to be raised via "Green Bonds – Made by KfW". The "KfW Green Bond Framework" will also be updated to include biodiversity, climate protection measures and international financing. The promotional bank raised the equivalent of EUR 12.9bn through 22 green transactions in nine different currencies on international markets in 2023 – further details can be found in the SSA article in this issue. "Green Bonds – Made by KfW" now exceed EUR 70bn. Germany's largest promotional bank also wishes to push ahead with the digitalisation of its issuance business to develop the potential for optimisation in this area. Following its very successful digital projects to date, KfW will also issue its first "tokenised bond" in 2024. This is a digitalised financial product that can be represented on a decentralised database, such as a blockchain. With the issue of its first tokenised bond, KfW will further test the possibilities offered by the German Electronic Securities Act (eWpG) and will also fulfil its role as a catalyst for innovation in this area. We estimate that KfW has maturing bonds of around EUR 80bn, meaning that a positive net supply of at least EUR 12bn is likely. Landwirtschaftliche Rentenbank also expects a funding volume of EUR 11bn with maturities of more than two years for 2024 once more. This target also includes a green bond in EUR. This will be offset by maturities of EUR 8.6bn. In the end, it raised circa EUR 10.5bn in 2023. The average term of its issues increased to 8.4 years (2022: 7.0 years). It still aims to raise up to 50% of its medium and long-term refinancing via benchmarks denominated in EUR or USD. We are again allowing for EUR 11-13bn for NRW.BANK in 2024. This will be offset by maturities of circa EUR 9bn. Issues by all three major German promotional banks would therefore exceed their maturing bonds and therefore provide the market with a positive net supply.

E-supras are also major market players

The German agencies are joined above all by the four Luxembourg institutions, the EU and EIB as well as the ESM and EFSF: the respective funding targets for 2024 of the two last-mentioned are already fixed– EUR 6.0bn (ESM) and EUR 20.0bn (EFSF), respectively. Both issuers have even already announced their figures for 2025, at EUR 7.0bn and EUR 21.5bn, respectively! As you know, the time slots with specific calendar weeks for the ESM and EFSF have been announced in advance since 2022. Given that it has EUR 10.8bn worth of maturing bonds, we expect a negative net supply of around EUR 5bn for the ESM. On the other hand, EFSF has maturing bonds of EUR 25.1bn, which corresponds to a negative net supply of EUR 5bn. We do not expect any changes of any kind to their plans during the year either. We also expect the ESM to come to the market with a USD bond again in the current year. As you know, the EU has been pursuing a new funding concept since 2023: instead of the previous approach of allocating bonds to different individual programmes, these are now issued as “EU bonds”. Only green bonds issued under the NGEU programme are still identified as such. The “mega issuer” plans to raise funding of EUR 75bn in the first half of the year, having raised as much as EUR 80bn in H1 2023. This will be entirely accounted for by the NGEU programme including REPowerEU, if applicable; in contrast, the support programme for Ukraine (MFA+) does not feature in the EU’s newsletter. We expect at least a further EUR 50-60bn for the second half of the year but would not be surprised by a larger figure here either. The amount for the year as a whole is therefore likely to come to at least EUR 130bn. EU bills regularly supplement these figures and are consequently not included. As a reminder, the EU often had a neutral net supply within the framework of its actual activities up to 2020; maturing bonds (EUR 3.2bn) will be extended as usual in 2024. Moving onto the European Investment Bank: according to the press release, the Board of Directors approved raising up to EUR 60-65bn, meaning that the bank still has a certain upside leeway. The EIB is expected to repay maturing bonds totalling EUR 60.5bn in 2024, resulting in a balanced to slightly positive net supply of up to EUR 4bn. This would be significantly more than in the previous two years. We previously always recorded a negative net supply, which was inconsistent in our eyes with the green transformation of the “European Union” construct, as once outlined by Ursula von der Leyen. In our opinion, the EU can do more but it needs the help and funds provided by the EIB.

Long-term funding plan incl. 2025 (EURbn)

	2023	2024	2025	∑
EFSF	20.0	20.0	21.5	**61.5**
ESM	8.0	6.0	7.0	**21.0**
∑	**28.0**	**26.0**	**28.5**	**82.5**

Time window for...

…syndicated EU bond issuances		**…syndicated EU bond issuances**	
CW 04	22-26 January	**CW 17**	22-26 April
CW 08	19-23 February	**CW 20**	13-17 May
CW 12	18-22 March	**CW 24**	10-14 June

...EU auctions

8 January	5 February	4 March	8 April
29 April	27 May	24 June	

Source: EU, ESM, EFSF, NORD/LB Floor Research

German government published planning figures shortly after our last issue

Although we do not consider the German government as an issuer in detail here in our floor research because of our bespoke coverage for supranationals, sub-sovereigns and agencies (i.e. excluding sovereigns) and covered bonds, its curve is still the reference for a large part of our institutional clientele. We therefore look to an appropriate degree at the supply from the German Finance Agency in this year too. To finance the federal budget and its special funds, the German government plans to issue securities in the amount of around EUR 412bn through auctions in 2024. Of this figure, EUR 247.5bn is attributable to the capital market and EUR 165bn to the money market. On top of this, it will issue EUR 17-19bn of green German Government securities. As you know, the programme for inflation-linked German Government securities on the primary market has been closed. Besides auctions, it also plans to use syndicates to raise up to EUR 12bn. In addition to a syndicate in the green segment, the Finance Agency has announced that it plans to issue several longer-dated conventional German Government securities. Issuance volume in the green segment will be increased once more to expand the market for green bonds and make it more liquid. Monthly auction dates are planned with the exception of June and December 2024. Multi-ISIN auctions are possible within these ten dates. German Government securities will be placed in longer maturity ranges. These will include a new 30-year federal bond maturing in August 2054. We had already referred to this last year: the issuance terms for German Government securities will change as a result of the planned introduction of single stage restructuring clauses for all government issuers in the eurozone. The new issuance conditions will be used for new issues from the first day of the next but one month following the Agreement on Amending the ESM coming into force and will lead to the standard maturity dates for federal bonds being amended from the 15th to the 16th of the months February, May, August and November. The daily maturity dates of new federal bonds will – as usual – be announced with the corresponding quarterly notifications re the issuance calendar.

ECB adjusts its capital key

The ECB's Governing Council adopted legal acts on the adjustment of the ECB's capital key and the national banks' contributions to be carried out every five years in the old year. The capital key was last adjusted on 1 February 2020. The occasion then was the withdrawal of the United Kingdom from the EU and the associated resignation of the Bank of England from the ESCB. The new key for subscription of the ECB's capital came into effect on 1 January 2024. National central bank shares of the ECB's capital are weighted in equal shares according to the respective Member State's share of the total population and the gross domestic product (GDP) of the EU. The European Commission supplies the data on the total population and on GDP. By transferring capital shares among each other, the national banks ensure that the distribution of capital shares corresponds to the adjusted key. Following the adjustment, the share of 17 central banks will be increased and that of nine central banks will be decreased. For one central bank, the rounded capital key remains unchanged. The subscribed capital remains unchanged overall. Within the rotation system, which regulates the voting rights of national bank presidents in the ECB's Governing Council, the central bank presidents are assigned to two groups. The assignment is based on the size of the financial sector and the amount of the Member States' GDP. Based on the new calculations, the grouping of the central bank presidents remains unchanged.

Latest press releases on German public sector borrowing

Public sector borrowing increased once more in Q3 2023 compared with the end of 2022: the total public sector budget (German government, Laender, municipalities and municipal associations plus social security including all extra budgets) owed EUR 2,454bn to the non-public sector (banks and other entities in Germany and abroad, such as private companies in Germany and abroad) at the end of the quarter. As the Federal Statistical Office (Destatis) announced on the basis of provisional results, public sector borrowing rose by 3.6% or EUR 85.8bn at the end of Q3 compared with the end of 2022. According to the press release, the debt level rose by 1.5% or EUR 36.3bn compared with Q2. The fact that is must now be noted in the results that the debts of all publicly controlled transport companies operating local public transport (ÖPNV) are included in the calculation of the public sector debt level from Q2 23 is intriguing here. According to Destatis, the reason for this is that the public sector ÖPNV companies receive allocations and subsidies from the German government and Laender to finance the Deutschland-Ticket, which was introduced on 1 May 2023. As a result, they no longer finance themselves predominantly from ticket sales and are classified without exception as extra budgets according to the concept of fiscal statistics, meaning that their debts are included in the statistics. Had the ÖPNV companies not been included in the statistics for the first time, the debt level would have been EUR 9.3bn lower, at EUR 2,444.5bn, at the end of Q3. The change compared with the end of 2022 would then amount to +3.2% or EUR +76.5bn. The debts of the German government rose most sharply, by 5.2% or EUR 83.5bn, compared with the end of 2022. Among others, one reason for the increase was a higher funding requirement resulting from the energy crisis associated with the Russian attack on Ukraine (see below). At the end of Q3, the Laender owed EUR 598.5bn, which equates to a fall of 1.4% or EUR 8.4bn compared with the end of 2022. The fact that the falls in three Laender are directly concerned with the capital market is intriguing: the highest percentage falls in borrowing compared with the 2022 year-end were established for MECVOR (-12.0%), BAYERN (-7.1%) and RHIPAL (-5.9%). The fall in Bavaria was largely attributable to a bond that had matured, and follow-on financing was not immediately required for the full amount thanks to temporary liquidity being available. The falls in the other two Laender were also attributable to a reduction in the issuance of securities. On the other hand, the highest percentage increases in borrowing compared with the 2022 year-end were in BRABUR (+8.5%), SAXONY (+4.1%) and BERGER (+2.3%). In all three Laender, the increases were due to higher issuance of securities. Another trend emerged at local level. The debt level of municipalities and municipal associations rose in Q3 compared with the end of 2022 by 7.6% or EUR 10.7bn to EUR 151.5bn. Had it not been for the Deutschland-Ticket, all Laender and municipalities would have borrowed less. For information purposes: the social security system reported a debt level of EUR 22.8m in Q3 2023, which implies an increase of EUR 1.1m compared with the end of 2022. More intriguingly, the indebtedness of the “Economic Stabilisation Fund Energy” (WSF) amounted to EUR 63.1bn, which was 108.7% or EUR 32.8bn more than at the end of 2022. In contrast, the debt level of the special fund “WSF Corona” fell by EUR 10.4bn compared with the end of 2022 to EUR 42.0bn (-19.8%). The indebtedness of the “Sondervermögen Bundeswehr” (Armed Forces special fund), which reported borrowings for the first time in Q1 2023, increased by EUR 2.0bn to EUR 3.2bn (+157.4%) quarter on quarter (end of Q2 to Q3).

Primary market

Same procedure as every year: on 28 December 2023, Lower Saxony (ticker: NIESA) engaged banks for a 10y bond to open the primary market on the first trading day in Europe in 2024. The bond was priced directly on 2 January. The terms for the bond were specified at ms +15bp (EUR 1bn; order book: EUR 1.55bn). Mecklenburg-Western Pomerania (ticker: MECVOR) also appeared on screens: it raised EUR 500m over eight years at ms +11bp. It was followed by Hesse (ticker: HESSEN): EUR 1.5bn for ten years came in at ms +15bp. KfW (ticker: KFW) approached the market with a dual tranche with a total volume of EUR 9bn. A total of EUR 6bn was raised for the bond with the shorter maturity (3y) at ms -5bp. Meanwhile, the longer-duration bond (10y) with a volume of EUR 3bn came in at ms +13bp. The order book of EUR 27bn was impressive, meaning that the deal was 9x oversubscribed. The Asian Development Bank (ticker: ASIA) provided the year's first ESG transaction: the green bond worth EUR 1.25bn (7y) arrived with investors at ms +12bp. The ESG segment also featured Nederlandse Waterschapsbank (ticker: NEDWBK) and BNG from the Netherlands. NEDWBK's sustainability bond with a 10y term and a volume of EUR 1.25bn came to the market at ms +26bp (guidance: ms +27bp area). BNG approached investors with a social bond (EUR 1.25bn; 10y). The final pricing was also likewise basis point tighter at ms +26bp. From the segment of European supras, the Council of Europe Development Bank (ticker: COE) issued a bond (EUR 1.5bn) with a ten-year maturity at ms +20bp. It was followed by the EFSF with a dual tranche consisting of a EUR benchmark and a tap. The bond with a five-year maturity and a volume of EUR 5bn was marketed at ms +13bp area, before ultimately being priced two basis points narrower. The order book stood at EUR 23.8bn. The EIB appeared with an EARN transaction. A 10y maturity was chosen for the sustainability bond and the pricing eventually came in at ms +18bp. CADES (Spain) naturally issued a social bond (5y) in the amount of EUR 4bn, which was priced at OAT +29bp (corresponds to approximately ms +15bp). The picture is completed by three taps from RENTEN, NRW and the above-mentioned EFSF. We would not wish to deprive you of the results of the most recent EU auction: two bonds were increased directly, namely EU 3.125% 05/12/28 and EU 3.25% 04/07/34. The shorter-duration bond was increased by EUR 2.263bn and the longer-running bond was tapped up by EUR 2.336bn. The bid-to-cover ratios were both 1.07x. Interesting mandates for the very near future: KUNTA (10y, WNG), AGFRNC (10y), DEXGRP (5y), EDC (5y) and IDAWBG (20y, Social).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
CADES	FR	09.01.	FR001400N7G0	5.1y	4.00bn	ms +15bp	- / Aa2 / AA	X
EIB	SNAT	09.01.	EU000A3LS460	10.0y	6.00bn	ms +18bp	AAA / Aaa / AAA	X
EFSF	SNAT	09.01.	EU000A2SCAM1	5.5y	5.00bn	ms +11bp	AA- / Aaa / AA	-
HESSEN	DE	08.01.	DE000A1RQEP6	10.0y	1.50bn	ms +15bp	- / - / AA+	-
COE	SNAT	04.01.	XS2745126792	10.0y	1.50bn	ms +20bp	AAA / - / AAA	-
MECVOR	DE	04.01.	DE000A3823Q5	8.0y	0.50bn	ms +11bp	AAA / - / -	-
BNG	NL	04.01.	XS2744955373	10.0y	1.25bn	ms +26bp	AAA / Aaa / AAA	X
NEDWBK	NL	03.01.	XS2744491874	10.0y	1.25bn	ms +26bp	- / Aaa / AAA	X
KFW	DE	03.01.	DE000A352ED1	10.0y	3.00bn	ms +13bp	- / Aaa / AAA	-
KFW	DE	03.01.	DE000A351Y94	3.6y	6.00bn	ms -5bp	- / Aaa / AAA	-
ASIA	SNAT	03.01.	XS2744177143	7.0y	1.25bn	ms +12bp	AAA / Aaa / AAA	X
NIESA	DE	02.01.	DE000A3823L6	10.0y	1.00bn	ms +15bp	AAA / - / -	-

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

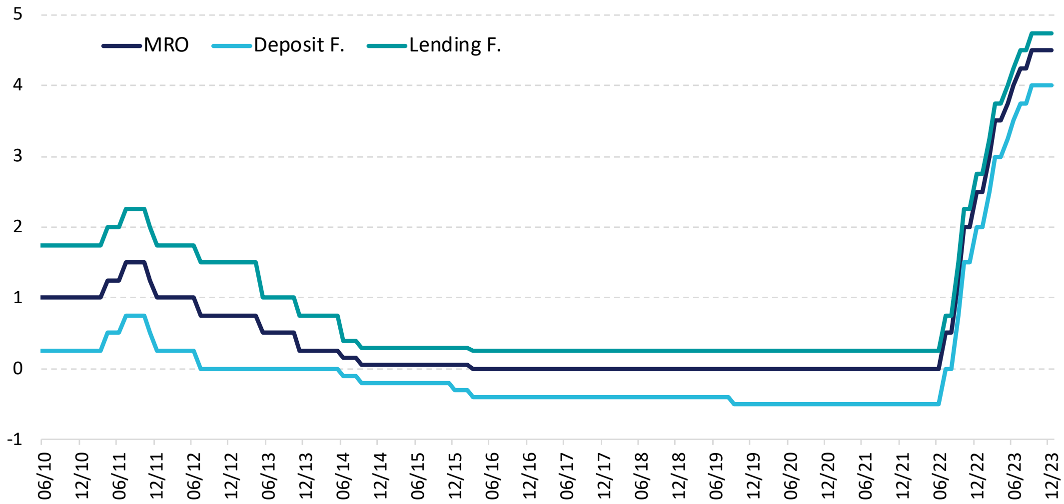
Cross Asset
ECB: Annual review of 2023 – no end to high rates?

Authors: Dr Norman Rudschuck, CIIA // Dr Frederik Kunze

ECB-year 2023: unremitting ascent to the summit despite (initial) storm warning!

In terms of ECB monetary policy, 2023 can in retrospect be described in a nutshell as the year in which the bank doubled down on its policy of increasing interest rates. This is particularly true in relation to its decisions on key interest rates. The ECB's Governing Council kept its focus firmly on the initially still unknown peak rate and did not allow itself to be diverted from its course even by the "storm warnings" for the banking sector that appeared in March. In the end, rates were hiked by +200 basis points once more. Since September all three key interest rates have remained at their high level. We intend to briefly review the ECB's activities in 2023 and, in doing so, concentrate on the critical aspects for the two asset classes of Public Issuers/SSA and Covered Bonds.

ECB key interest rates (in %)

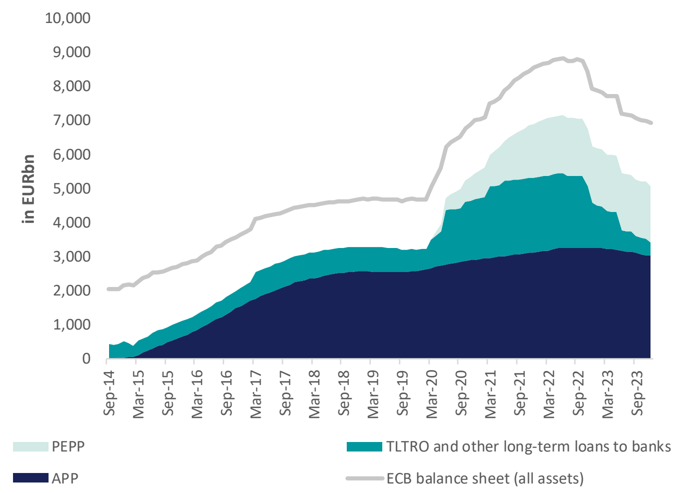


Source: ECB, Bloomberg, NORD/LB Floor Research

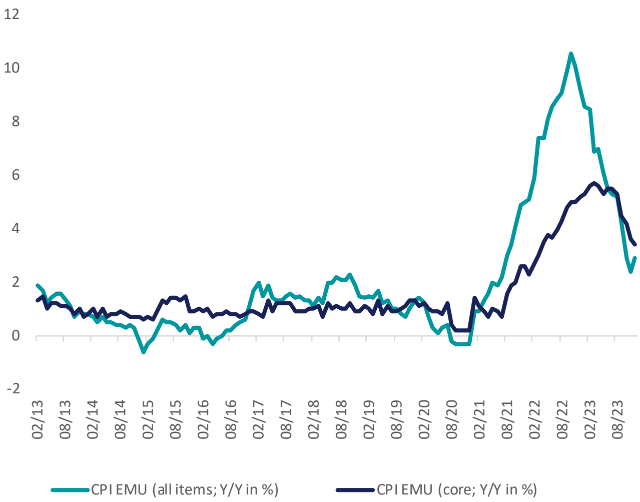
Reduction in the ECB balance sheet firmly in view?

A significant announcement regarding the distortions to the asset classes under review caused by monetary policy occurred in December 2022, when the ECB announced that the APP portfolio at least would be significantly reduced from March 2023. This was followed by more details about the reduction in reinvestments in February, with the decision to stop reinvestments of maturing APP bonds ultimately taking effect from July. The reduction in the ECB's balance sheet also continued through the (scheduled) repayments of the TLTRO III tenders. Subsequently, attention also focused on the issues of banking sector liquidity and financing terms for the real economy. Not surprisingly, the battle to reduce inflation took its toll and the focus watchers – switched increasingly to the question as to how the Governing Council and the ECB's economic experts assess future economic activity. We were surprised by the widespread speculation about massive cuts in interest rates among market participants in Q4. The end of the turnaround in the form of rate hikes is a fait accompli, although another trend reversal in 2023 was certainly not yet on the cards.

ECB balance sheet



Inflation trend (in %)



Source: ECB, Bloomberg, NORD/LB Floor Research

Final ECB Governing Council meeting in 2023: news on the PEPP?

At the final monetary policy meeting, the ECB's Governing Council maintained its course with regard to key interest rates and remained at the peak. However, the markets were given somewhat more clarity in relation to the PEPP, which for a long time had not featured in discussions. Accordingly, the reduction in the "pandemic portfolio" will go ahead. We are now told that complete reinvestment will not continue until the end of 2024 but only until the middle of the year and the portfolio will therefore shrink by EUR 7.5bn on average per month from the second half. We saw and still see the PEPP as the first line of defence, especially in the event of tensions on the EUR market for sovereign bonds. Now, the Governing Council will soon soften this somewhat. Nevertheless, it is bound to happen if the staged turnaround is to succeed. Recently, the "second line of defence" TPI has been discussed just as infrequently as a possible adjustment to the minimum reserve requirements for commercial banks.

New ECB projections for growth and inflation in the eurozone*

	2023	2024	2025	2026
Harmonised Indices of Consumer Prices (HICP)	5.4	2.7	2.1	1.9
Real GDP growth	0.6	0.8	1.5	1.5

* Change versus previous year in %
Source: ECB, NORD/LB Floor Research

Conclusion

Another remarkable "ECB year" is behind us. Both the interest rate turnaround and the acceleration in the reduction of "unconventional" portfolios went ahead. This is particularly true in relation to the APP, whereas for the PEPP 2023 was initially "only" a year for setting the course. Any assessment of the monetary policy implications of the ECB's projections at the end of the year must be subject to significant uncertainty. However, it is currently clear that we experienced the "end of the interest rate turnaround" in 2023, whereas 2024 is likely to be dominated by the question of rate cuts. However, everyone would be well advised not just to concentrate on this headline topic. There are still other (un)conventional monetary policy control parameters, which the Governing Council may or will touch on: minimum reserve requirements and interest, possibly the establishment of the once more symmetrical interest rate corridor or, if necessary, activation of the TPI.

Covered Bonds

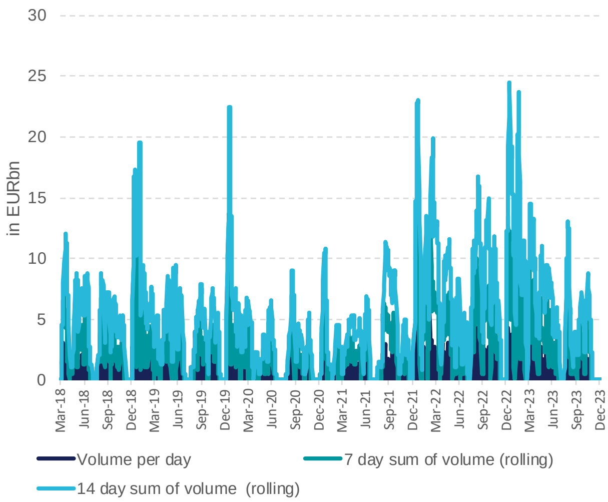
Covered Bonds: Annual review of 2023

Authors: Dr Frederik Kunze // Lukas Kühne

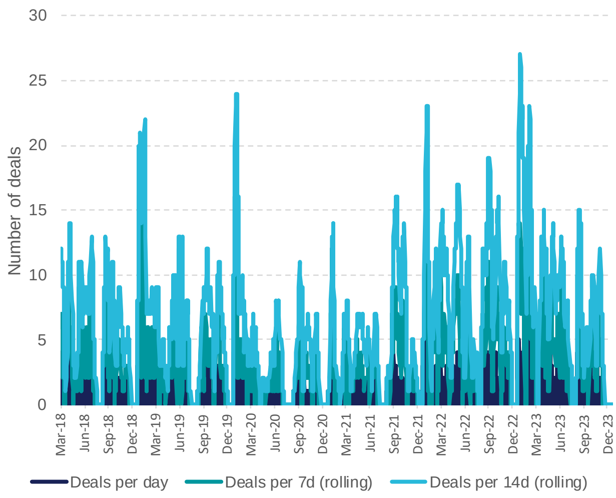
A review of 2023

It was a frenetic start to 2023, particularly in the primary market for covered bonds. In January alone, a volume of EUR 39.7bn (46 deals) was placed in the EUR benchmark bond segment. In terms of the amount raised with new bond issues, this was the strongest start to a year since we began to record the relevant data in 2011. At EUR 19.1bn, net new supply stood out. However, structural changes emerged from the start of the year. For example, short maturities dominated in the market. The Eurosystem's fairly quick retreat from the covered bond segment also seemed somewhat frantic to us, both in terms of purchases in the primary market and with regard to activities in the secondary market. In February 2023, the ECB's primary market order quota was reduced from 20% to 10% and from March onwards, the Eurosystem was no longer present in the covered bond primary market as a buyer. Then on 4 May 2023, the European Central Bank in Frankfurt eventually went on record, stating that 'the ECB's Governing Council assumes that it will discontinue reinvesting under the APP from July 2023 onwards.' This sealed the deal in terms of a withdrawal from the secondary market as well as uncontrolled – albeit 'passive' – melting away of the APP portfolio. Under the CBPP3, the covered bond volume had increased to around EUR 300bn. As outlined below, these developments were extremely important, particularly for the spread universe in the EUR benchmark bond segment. In contrast, they actually had less of an impact on issuance and seasonal patterns in the covered bond market, in our opinion. However, the effect of shock waves emanating from Switzerland and the USA respectively that impacted the banking markets determined spreads at times. Yet, the stress experienced by banks was less significant on the whole with regard to the covered bond year of 2023 than had been assumed in March 2023, which we explain below.

Daily issuance volume – EUR BMK (EURbn)



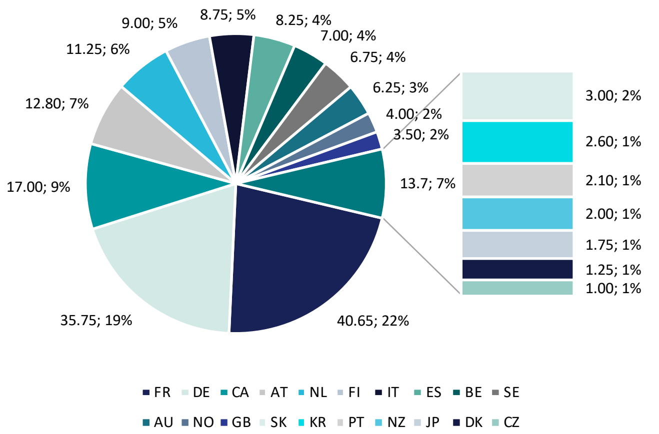
EUR BMK – daily number of bond issues



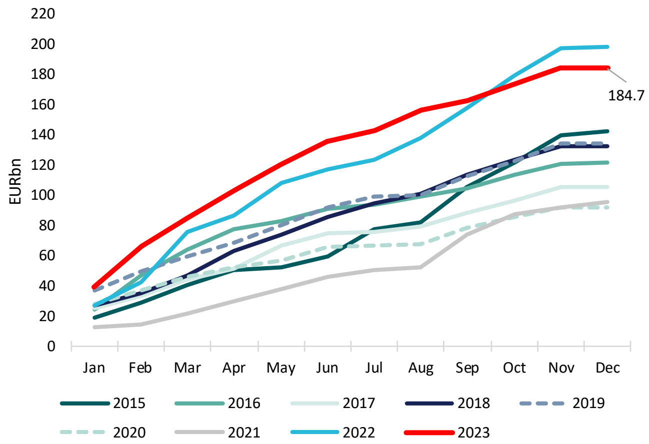
Source: Market data, NORD/LB Floor Research

New issue volume – did the market just run out of steam?!
After an impressive performance in January 2023, brisk activity also continued in the primary market during subsequent months, although the episode of bank stress did result in a hiatus of several trading days. On 9 March 2023, the French issuer CAFFIL launched an EUR benchmark bond issue (EUR 750m, 9.0y) in the primary market. It then took until 27 March before the market saw the next bond issue, when CIBC from Canada placed a benchmark issue worth EUR 1.5bn (4.0y) in the primary market. This deal was followed by a transaction from another overseas jurisdiction – namely ANZ in Australia (EUR 1.5bn, 2.0y). In our opinion, it is worth noting specifically at this point that the CAFFIL bond – with a maturity of nine years – was the longest-dated covered bond for more than two months before Deutsche Bank tested the waters in the 10y maturity segment as part of a dual tranche on 10 May 2023. We discuss the general reticence with regard to longer-dated bonds below. Conversely, the primary market showed far less restraint in general. This certainly was the case until some time after the midpoint of the year. As at 30 June 2023, fresh EUR benchmark bond issues totalling a volume of EUR 136.1bn were recorded. By the end of September, the issuing year had produced more new securities than the previous record year of 2022. However, in the remaining weeks of the year, the market just seemed to run out of steam. Possible explanations for this are found on both the demand and supply sides. While the focus increasingly turned to who would take up the high issuance volume (without the ECB's participation), uncertainty also arose as to the actual funding requirement. We will examine both of these aspects in the following sections.

Issuance volume – EUR BMK in 2023 (EUR 184.7bn)



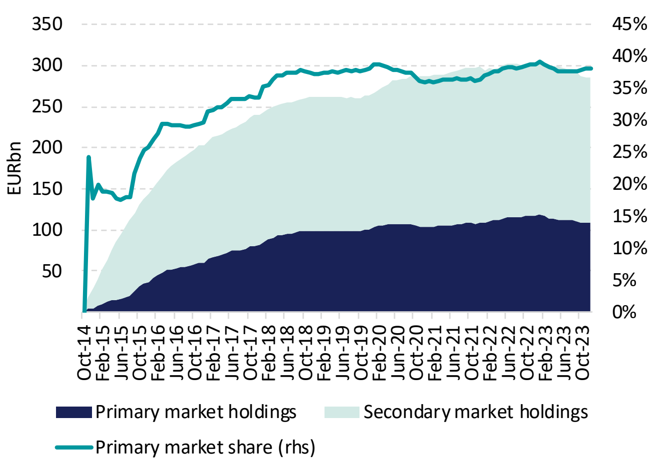
EUR BMK – comparison of issuing trend per year



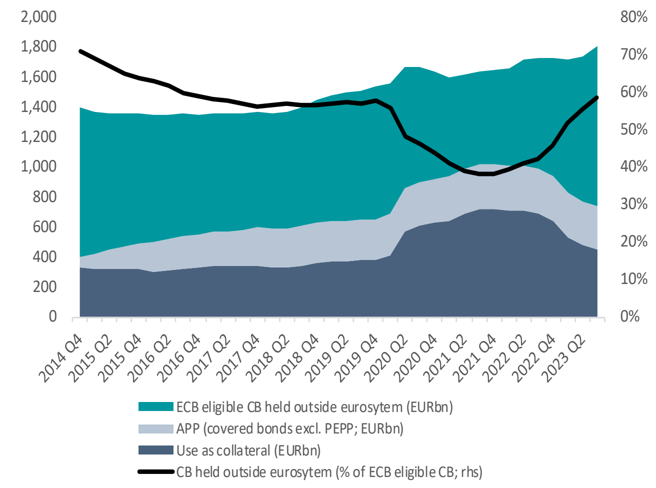
Source: Market data, NORD/LB Floor Research

Positive net supply totalled EUR 69.2bn in 2023
With regard to net supply, the 'usual suspects' put in an appearance: France (net supply of EUR 18bn), Germany (EUR 18bn) and Austria (EUR 11.1bn). Only issuers from Canada (net supply of EUR 2.0bn) contributed less to market growth in 2023, although in terms of gross issuing volume they held onto third place (EUR 17.0bn). France (EUR 40.7bn) and Germany (EUR 35.8bn) were the only two countries to record a higher gross issuing volume. Looking back on the past twelve months, we consider the high net supply of new bonds to be a major spread driver.

ECB – CBPP3 holdings



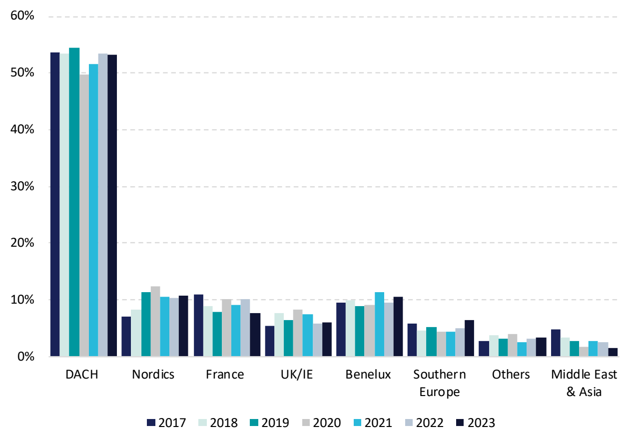
ECB – covered bonds in the Eurosystem



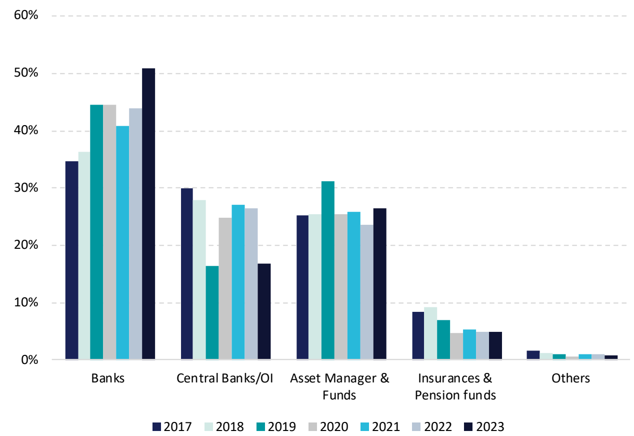
Source: Market data, ECB, Moody's, Bloomberg, NORD/LB Floor Research

Primary market in 2023 also impacted by change in purchasing behaviour and TLTRO III
What we would describe as the continuation of the monetary policy U-turn also had a significant impact on primary market events. Accordingly, we believe that, in addition to the relative attractiveness compared with other funding instruments (in particular, senior unsecured bonds), the lively issuance activity resulted from an increasing overall funding requirement based on covered bonds. Although weak new lending in property financing caused problems for some issuers and, seen in isolation, would likely suggest a lower funding requirement, this effect was perceptibly 'overcompensated' by a sharp decrease in deposits as well as by TLTRO III maturities, in our opinion. As a result of a change in purchasing behaviour and/or the end of reinvestments of CBPP3 maturities, a major factor influencing the covered bond market disappeared in 2023. However, another reason for the ailing market towards the end of the year was that some issuers preferred to have market activities during the 'ECB era'.

Primary market distribution by investor country



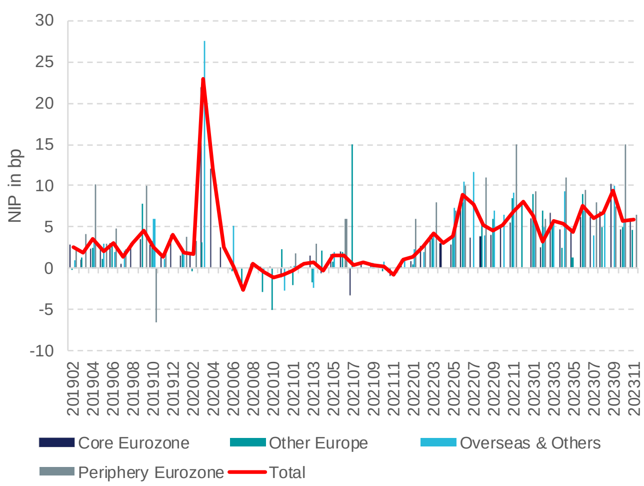
Primary market distribution by investor



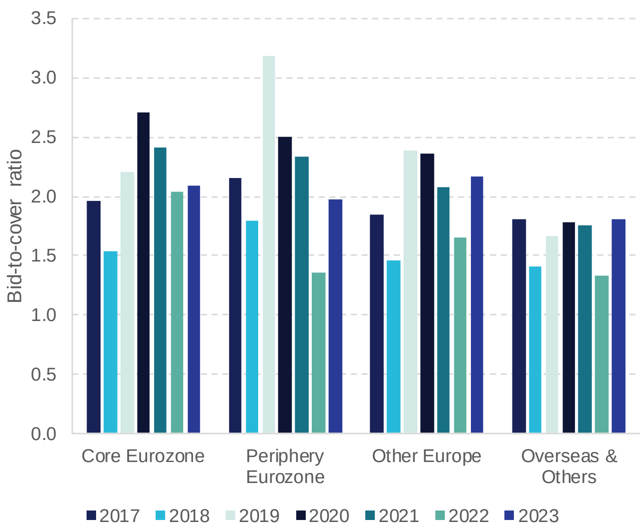
Source: Market data, NORD/LB Floor Research

Who filled the gap left by the ECB on the demand side?
Following the ECB's withdrawal, the required change in the structural composition of the demand side became a key topic in 2023. It can be stated that the gap left behind was filled in an impressive manner. The investor distribution in the primary market makes it evident that banks and more specifically their treasury departments represented the main group to absorb excess supply, taking advantage of the ECB's retreat. This particularly applies in relative terms, i.e. the share of the category 'banks' rose noticeably. Growth in the real money category of asset managers & funds was also significant, although not as marked as for banks. The regional distribution of the primary market volume allocated is highly relevant to the Pfandbrief segment, where accounts from the DACH region remained at the forefront. The home bias of investors in recent months was ultimately also responsible for the fact that German Pfandbriefe seemed very expensive from an investor viewpoint – despite high CRE shares in cover pools. New issue premiums (NIP) as well as bid-to-cover ratios observed in the market reflect the selectivity of investors, which has largely resulted from the ECB's monetary policy. In spite of increased spread levels, double-digit NIPs remained the order of the day at times. Bid-to-cover ratios were at the previous year's level. This was remarkable, given that the average size of deals in 2023 was smaller than that recorded in 2022. Liquidity increasingly was a limiting factor on the demand side, especially in the second half of the year. This was partly attributable to the ECB having started to reduce its own balance sheet, while at the same time some banks faced a drain on deposits. For some real money investors, their room to manoeuvre was restricted by fixed-term positions (term money and structured finance products) dating back to the time before the ECB's interest rate turnaround. Bid-to-cover ratios also reveal differentiation according to jurisdiction. Some investors turned to new securities from Italy while others deemed UK covered bonds relatively attractive, something we would attribute to both the spread and scarcity.

New issue premiums



Bid-to-cover ratios

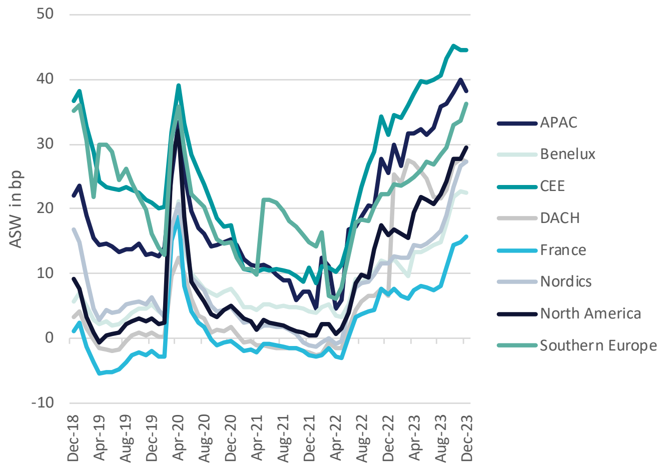


Source: Market data, NORD/LB Floor Research

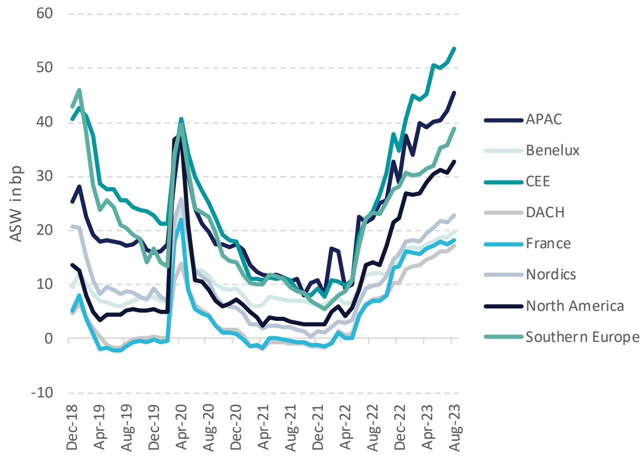
Spread trends in the secondary market – painful term premiums

Repricing was a key factor in the covered bond market during 2023. The general trend towards spread widening was mapped out by a large number of influences. We consider the high net supply of new bonds a cause, as well as the return of risk premiums. First, the ECB is responsible for this development. With supply increasing and decreased demand from the Eurosystem (primary and secondary), evening out was achieved on the basis of prices in the form of the spread. General sentiment and specific headline risks also tended to suggest widening in 2023. At the same time, spreads in the secondary market also shaped the primary market activities of issuers. This mainly applies with regard to the maturities selected. As early as February 2023, we examined the topic of maturity premiums on covered bonds, which then remained relevant right up to the end of the year. The downward trend of the interest rate curve (EUR swap rates) in the relevant maturity ranges increased fair values on a spread basis and therefore also the issue spreads for the issuer's side. Consequently, the preponderance of short maturities is by no means solely attributable to investor behaviour.

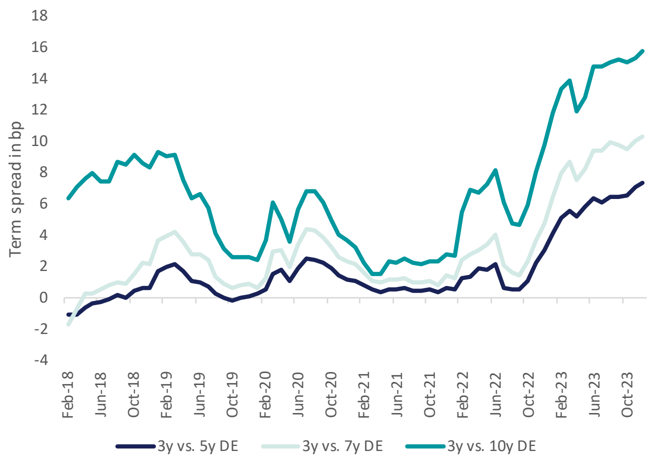
Trend in ASW spread by region (3Y)



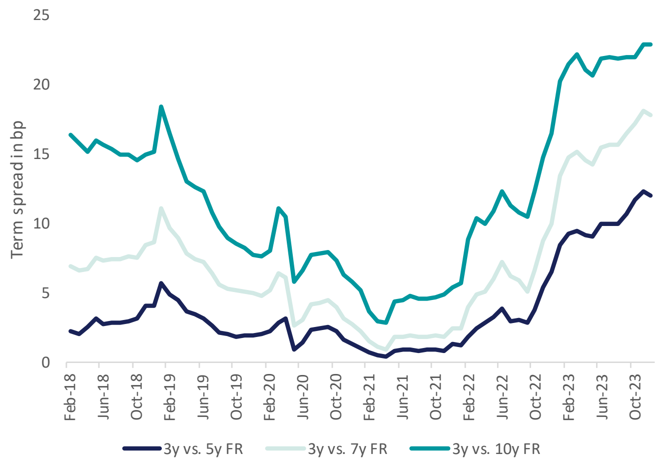
Variation range of spreads by country in 2023 (5Y)



Term premiums – covered bonds from Germany



Term premiums – covered bonds from France

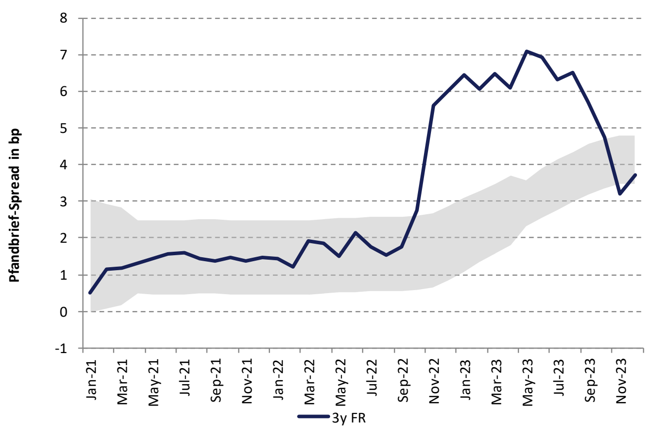


Source: Market data, NORD/LB Floor Research

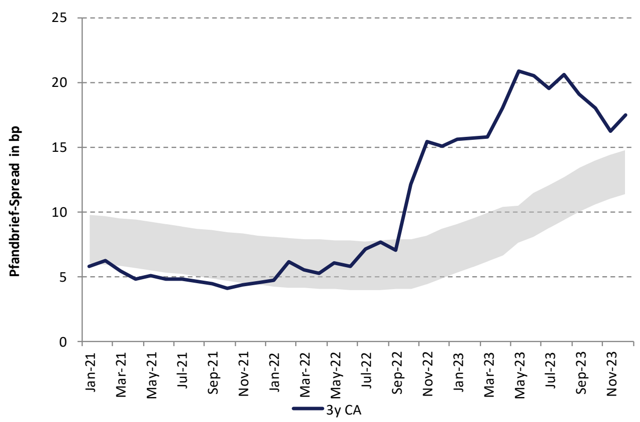
Relative value – bound for a new equilibrium?

The investor side is generally guided by relative value (RV) considerations. The charts below provide an overview of generic spread differences between various jurisdictions by using examples (e.g. DE vs FR and DE vs CA), as well as between Pfandbriefe and Bunds. These charts are based on generic calculations and indicate the spread in absolute terms in each case as well as the long-term trading range (36 months, variable). With regard to a comparison of jurisdictions, the outperformance of Pfandbriefe is obvious over time. In our view, the grey shading of the trading range reflects a move in the direction of a new equilibrium. At the same time, the movements at the end of the year indicate that Pfandbriefe were overpriced at their peak. The most recent tightening of the DE vs FR spread was partly caused by the discussion about the asset quality of Pfandbriefe with a high share of CRE. However, we still see no fundamentals that would explain spread widening. Instead, it is more a case of headline risks and sentiment. With regard to the Pfandbriefe vs Bunds spread, the RV-based analysis also indicates a path towards a new equilibrium. Accordingly, the neutral signal (spread in the trading range) should not be overvalued in retrospect. In our opinion, investors were simply motivated to buy Pfandbriefe.

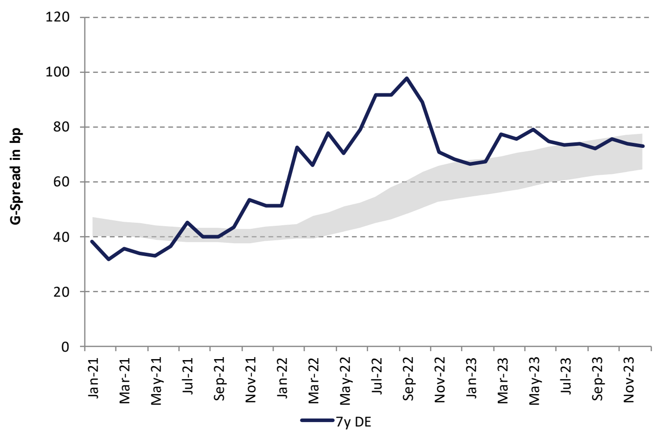
Covered bond spread – DE vs FR (3Y generic)



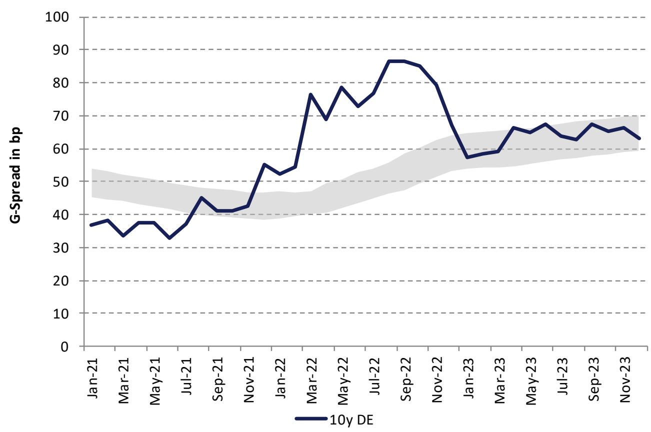
Covered bond spread – DE vs CA (3Y generic)



Spread difference – Pfandbriefe vs Bunds (7Y generic)



Spread difference – Pfandbriefe vs Bunds (10Y generic)

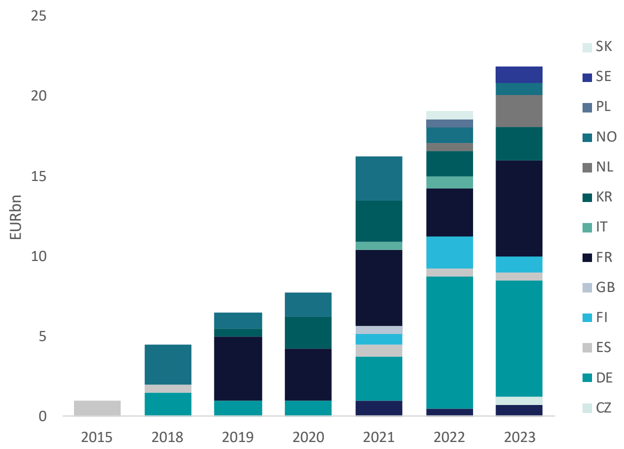


Source: Market data, NORD/LB Floor Research

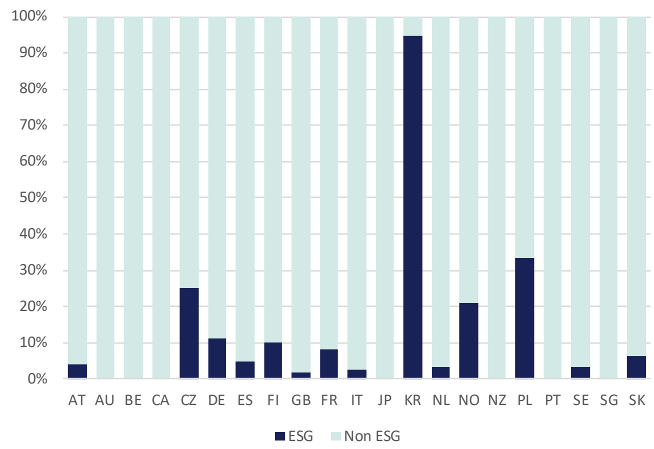
Issuance volume of EUR 21.9bn kept ESG segment on course for growth in 2023

Based on absolute figures, 2023 marked another record year for the ESG sub-market in the EUR benchmark bond segment. Over the past twelve months, covered bonds in sustainable formats (green, social and sustainability) worth EUR 21.9bn in total (divided between 31 bond issues) were placed in the market. This figure exceeded the previous year's level (EUR 19.1bn), with green bond issues once again being predominant. In fact, the green segment accounted for EUR 14.75bn (previous year: EUR 15.8bn), whereas the remaining EUR 7.1bn was attributable to the category 'social' (previous year: EUR 2.9bn). Debut issues in 2023 also confirmed that generic growth of the ESG segment continued for EUR benchmark bond issues. UniCredit Bank Czech Republic & Slovakia (CZ) was present in the market in 2023 and launched a first issue in green format in June. This was also the first ever green benchmark bond issue from the jurisdiction. CFF in France approached investors with a social bond deal in EUR benchmark format for the first time in October 2023. In November, Rabobank (NL) was the next issuer to place a debut green bond issue in the covered bond market. In the same month, the group of Pfandbrief issuers with green benchmark bonds outstanding was also expanded to include Bausparkasse Wüstenrot. The share of ESG deals in relation to the EUR benchmark segment as a whole amounted to around 8% at the end of 2023. At jurisdiction level, the distribution was very heterogeneous. In relation to the issuing total, the segment accounted for a share of around 14% in 2023 (previous year: 11%).

EUR benchmarks (ESG) – issuance volume



EUR benchmarks (ESG): shares in total market

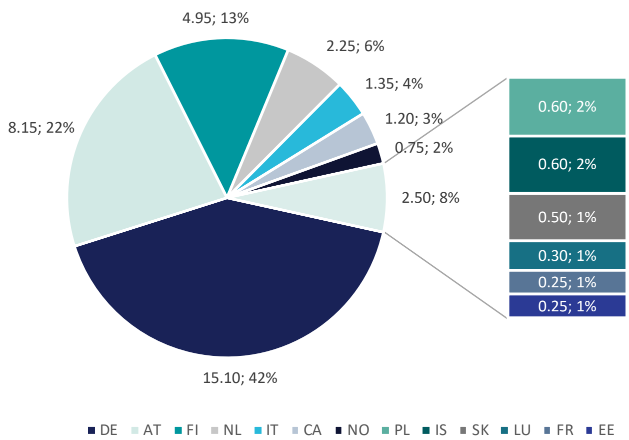


Source: Market data, Bloomberg, NORD/LB Floor Research

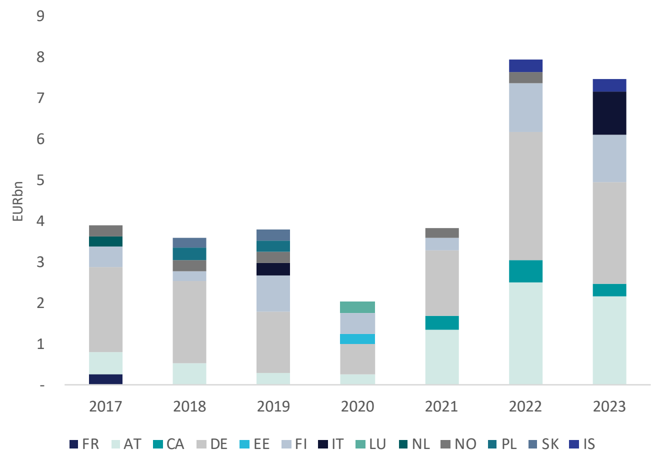
Generic growth recorded for the EUR sub-benchmark segment in 2023

In the past twelve months, the segment of EUR sub-benchmark bond issues was slightly more restrained than in 2022. Following the placement of new bonds worth EUR 8.0bn in the market during 2022, the issuance volume totalled EUR 7.5bn at the end of 2023. We believe this is an indication that generic growth is set to continue in this important niche market. Landsbankinn (IS) and Bank für Tirol and Vorarlberg (AT) were two new issuers who arrived in 2023. Sparkasse Hannover (DE), whose previous market activities related to mortgage Pfandbriefe in sub-benchmark format, placed its first public sector Pfandbriefe in this segment in November 2023.

EUR sub-benchmark volume by country (EUR bn)



EUR sub-benchmarks – issuance volume



Source: Market data, Bloomberg, NORD/LB Floor Research

NORD/LB Issuer Guide 2023 – a reference book for the covered bond market

In August 2023, we published the eleventh edition of our NORD/LB Issuer Guide Covered Bonds. As before, this publication provides a comprehensive overview of the covered bond market. The Issuer Guide focuses on covered bond issuers as well as the relevant cover pools. This study comprises information about 180 financial institutions with EUR benchmark bond issues and/or sub-benchmark bond issues outstanding. Data was compiled on significantly in excess of 200 cover pools from 27 jurisdictions. Furthermore, we regularly published specific data and examined regulatory aspects in the past twelve months as part of our periodic publications, “Transparency requirements §28 PfandBG” (Q3/2023 issue) and “Risk weights and LCR Level of Covered Bonds” (02/2023 issue). These and more publications are available here: NORD/LB Floor Research. Avoid missing out on the latest information by subscribing to our Floor Research Newsletter. The Southern European Covered Bond Roundtable 2023 and The UK Covered Bond Roundtable focus on specific covered bond markets. We devoted a separate study to analysing the changed monetary policy environment and its impact on the covered bond segment – The ECB’s withdrawal – demand and investor attitudes in the covered bond segment (German only). We published an analysis of the Pfandbrief market in 2023 as part of our NORD/LB Covered Bond Specials series and focused on green and social bonds from Germany in our article for the Annual Bond Guide – Green & Sustainable Finance 2023 (German only). Of course, this publication also included information about Pfandbriefe.

Conclusion

The past twelve months proved to be another unique covered bond year. Spread widening featured in 2023 as well as a high number of bond issues. Short maturities dominated in the primary market. Both issuers and investors grappled with the ECB’s new monetary policy. By the end of the year, the primary market had run out of steam. However, just a few trading days into the new year and one thing is certain – ‘new year, new luck’!

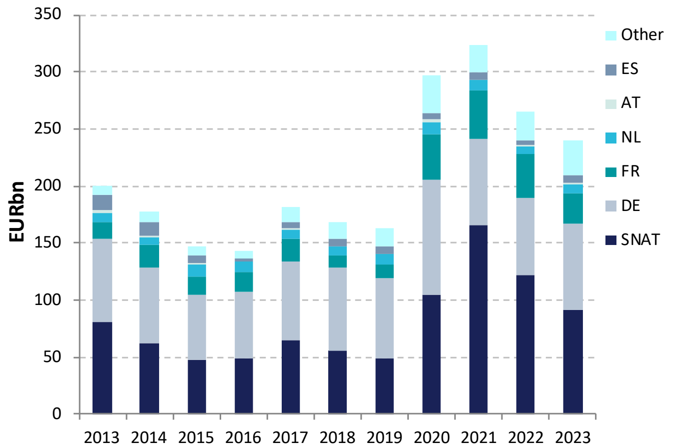
SSA/Public Issuers
SSA: Annual review of 2023

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann // Lukas-Finn Frese

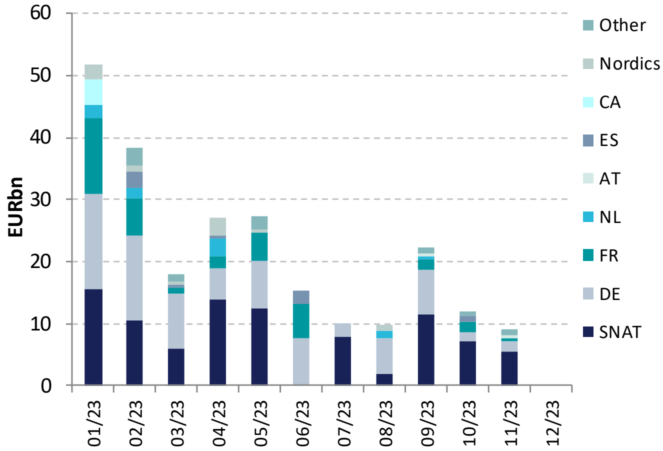
Introduction

As part of our first edition of the new year, we would like to take the opportunity to look back and view the SSA market 2023 in EUR with the necessary distance despite geopolitical distortions. Overall, the past year was characterised by a significant increase in refinancing costs for the issuers included in our coverage. As the ECB has, as expected, further tightened the monetary policy handbrake, we will devote a separate article to the eventful happenings in this issue. Investors are once again receiving a significant coupon, particularly due to the ongoing reduction in the Eurosystem's balance sheet as part of the PSPP and the continuous hike in key rates in lots of large and small steps. We will attempt to categorise this demand and the continuing substantial new supply of bonds across the following pages.

EUR benchmark issuance volumes



EUR benchmark issuance volumes 2023



NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn.
Source: Bloomberg, NORD/LB Floor Research

Issuance volume remains high – albeit in decline

At EUR 248.1bn, the issuance volume in 2023 remained at a high level historically speaking. Although it is noticeably lower compared with 2022 and especially 2021, the volume is still around 52% higher than before the COVID-19 pandemic. At least the virus and its after-effects once again receded further into the background last year - despite various illnesses among family and friends in the fourth quarter of 2023. The situation was different for the issues that were already causing us concern in 2022, with the ongoing war in Ukraine and the associated energy (price) crisis continuing to cause economic uncertainty. In addition, the appalling events in Israel and Gaza since October have further exacerbated the geopolitical conflict situation.

Pronounced focus on the first half of the year

The issuance pattern in 2023 again followed in the footsteps of previous years. With EUR benchmarks of over EUR 51bn, January was once again the busiest month. in 2022, this figure was around EUR 44bn, while February took second place with a volume of around EUR 38bn. At a volume of just over EUR 27bn in 2023, May ultimately claimed third place, with April finishing in fourth place and narrowly missing out on a podium place at just EUR 250m behind. Unsurprisingly, November and December were the least active months. This can also be taken literally for December, as not a single new issue was registered in this month. In addition, the summer months of July and August did not have much to offer in the way of fresh supply either. The activities in the past year thus far exceeded the previously strongest years (before the pandemic) 2011 and 2012. However, another new record after 2021 was not possible. All in all, a strong issuance volume (benchmark) of EUR 248.1bn (previous year: EUR 207.4bn) was achieved. By way of comparison, the average value from 2008 to 2019 was EUR 172.5bn. We should also mention that the number of EUR benchmarks in 2023 (171 bonds) was well above the 154 bonds that we recorded in 2022.

Publications in 2023

In addition to our ad hoc publications on market-moving events, for example the ECB's decision in December, which will set the tone for 2024, we stuck to what we do best in 2023: In August, the latest edition of the Issuer Guide - German Laender 2023 was published and we are proud to say it proved very popular. It is also always interesting for us to see how your interest in niche products is growing. The "Beyond Bundeslaender" segment was not neglected either: Spanish Regions and the Greater Paris have already been covered in more detail. This was accompanied by a publication on the City of Amsterdam. We also managed to finalise our annual update on the Belgian Regions on the final working day of 2023. Within the issuer group of supranationals and agencies, our Issuer Guides were again divided into the individual sub-markets. German, French, Dutch, Austrian, Nordic and Spanish Agencies were published as part of this series in 2023. From the supranationals segment, we looked at European Supras. These annual publications were accompanied by 37 issues of our weekly publication as well as digital Capital Market Conferences and Spotlight events on selected topics. We were also pleased that our Capital Market Conference at Herrenhausen Palace was once again held in person in full last year.

Brief summary of key topics in 2023

War is back in Europe. This fact, which was unthinkable for a long time, also moved us last year and there is still no end in sight. Experts have recently been talking about a stalemate of trench warfare, similar to the First World War. The devastating scenes from Israel and the Gaza Strip have been no less incomprehensible since October and continue to harbour plenty of potential for escalation. In terms of monetary policy, the central banks are continuing their cycle of interest rate hikes. We have seen a total of six consecutive key rate hikes in the eurozone. On the funding side, the EU once again stood out and confirmed its role as a new super issuer in 2023 (EUR 120bn incl. taps). However, KfW was also forced to defend records during this period. With a funding volume of EUR 90bn, the German promotional bank came in just above the previous year's level. In the remainder of this article, we will shed light on the topics that have moved us and/or the market this year.

EU: NGEU calls for half-time, MFA+, REPowerEU

For the all-important European Union, our projection suggested a funding target of around EUR 125-135bn in 2023. In purely mathematical terms, this would have been around EUR 2.5bn per full calendar week. However, the publication of the first funding plan for H1 2023 surprised us. Contrary to our expectation that the EU would aim for a target of EUR 50-60bn in the first half of the year, the EU Commission announced that it would approach investors with a considerable volume of EUR 80bn, of which EUR 70bn alone was attributable to the NGEU programme and EUR 10bn to the new support programme for Ukraine (MFA+). The volume was then significantly reduced in the second half of the year. The funding plan for July to December 2023 envisaged the issuance of bonds totalling "only" EUR 40bn. Overall, EU funding in 2023 came to EUR 120bn, which ultimately even fell short of our original forecast. Back to NGEU, which called for half-time last year: By 2026, around EUR 806.9bn is to be raised for this purpose - by the end of 2023, the pot had already filled to roughly EUR 200bn. Around 30% of this is to be raised via green bonds, which more than illustrates the significance of ESG bonds. In the wake of this, the EU is providing a tool that can be used to track green bond proceeds by recipient country. Of the recovery and resilience plans approved to date, which form the core of the NGEU programme, the expected expenditure amounts to EUR 515.1bn, of which EUR 190.6bn are eligible for financing through green bonds. Please refer to the table below for a list of the total payments made to date from the RRF, which in turn consist of allocations and loans. At EUR 85.4bn, Italy received the lion's share of funding from the RRF as at year-end 2023, which corresponds to around 46.0% of the current total volume. The European Commission also intends to become climate-neutral by 2050 as part of the REPowerEU programme. The transformation of Europe's energy system is urgent in two respects. It will firstly serve to end the EU's dependence on fossil fuels from Russia, which are used as an economic and political weapon, and which cost European taxpayers almost EUR 100bn a year (according to the Commission). Secondly, the programme will help to tackle the climate crisis. Furthermore, the extraordinary MFA programme for Ukraine was also topped up with an additional package of EUR 16.5bn.

RRF: Payments made to 22 Member States to date (EUR 185.6bn)

Austria	EUR 1,150m	**Greece**	EUR 11,091m
Belgium	EUR 770m	**Italy**	EUR 85,441m
Bulgaria	EUR 1,369m	**Latvia**	EUR 438m
Croatia	EUR 2,918m	**Lithuania**	EUR 831m
Cyprus	EUR 242m	**Luxembourg**	EUR 32m
Czech Republic	EUR 1,843m	**Malta**	EUR 93m
Denmark	EUR 503m	**Portugal**	EUR 5,142m
Estonia	EUR 365m	**Romania**	EUR 9,117m
Finland	EUR 271m	**Slovakia**	EUR 1,930m
France	EUR 22,518m	**Slovenia**	EUR 281m
Germany	EUR 2,250m	**Spain**	EUR 37,037m

Source: European Commission, NORD/LB Floor Research

Croatia joins ESM as 20th member

In terms of members, the ESM is still in a state of flux. After Croatia's membership application was approved in December 2022, the country officially joined the ESM as the 20th Member State in March. Participation in the capital stock amounts to EUR 3.7bn in the first twelve years, of which EUR 422.3m will be paid in five annual tranches. As Croatia's GDP per capita is less than 75% of the EU average, it benefits from a temporary correction period lasting until 2035. Subsequently, the subscribed capital will be adjusted by EUR 2.04bn to EUR 5.74bn and the paid-in capital will be increased by EUR 233m to a total of EUR 655.3m.

Selected rating changes

There were also notable rating changes last year. Although the most important of these does not come directly from the SSA segment, it will have far-reaching consequences for it. At the end of April, the rating agency Fitch felt compelled to downgrade the French government's credit rating from “AA” to “AA-” (outlook: stable). The reason for this downgrade, as is so often the case with public issuers, is the diverging trends in income (lower) and expenditure (higher) as well as the further increase in government debt forecast until 2027. This is compounded by rising interest expenditure and slower growth, not only due to social unrest. This downgrading of France has now led directly to a downgrade of the EFSF: also from “AA” to “AA-”. This further had a massive impact on the French SSA segment. On 12 May, Fitch announced that it was downgrading the rating of 27 French government-related entities (GRE). The list of institutions affected includes 14 issuers whose ratings are equated with those of the French state. These are (in alphabetical order, in italics included in our coverage): Action Logement Groupe, Action Logement Immobilier, Action Logement Services, Agence centrale des organismes de sécurité sociale (ACOSS), *Agence française de développement (AFD)*, Assistance publique - Hôpitaux de Paris (AP-HP), *Caisse d'Amortissement de la Dette Sociale (CADES), Caisse des dépôts et consignations (CDC)*, Caisse nationale des autoroutes (CNA), *Bpifrance*, Régie autonome des transports Parisiens (RATP), SNCF Réseau, *Société du Grand Paris (SGP)* and *Unédic*. For information on other GREs affected, please refer to our Weekly publication from 7 June. At supranational level, Moody's decided to upgrade the rating of the Council of Europe Development Bank (ticker: COE) from “Aa1” to the top rating of “Aaa” (outlook: stable). The risk experts justified this with a significant improvement in creditworthiness as a result of the new strategic framework and an increase in paid-in capital (EUR 1.2bn). Moving on to look at Spain: the regions of Andalusia (ticker: ANDAL) and Madrid (ticker: MADRID) both benefitted from rating upgrades. S&P upgraded Andalusia's credit rating from “BBB+” to “A-” (outlook: stable), while Madrid is now rated “BBB+” by Fitch instead of “BBB” and also has a stable outlook. One last notable rating change takes us across the Atlantic to Canada: The province of British Columbia (ticker: BRCOL) has been downgraded by S&P from “AA+” to “AA” (outlook: negative) against the backdrop of an extensive investment plan that is already absorbing large parts of the expected budget surplus. We are planning an update of our publication on Canadian sub-sovereigns in Q1 2024.

Revision of the ECB's repo collateral rules

There were additionally some important changes from a regulatory perspective in 2023. The ECB's repo collateral rules and their implications for the SSA segment in particular have undergone significant changes, which we intend to look at again briefly below. Within the scope of its statutes, access to ECB liquidity is only possible on a collateralised basis. The ECB defines the assets that are eligible as collateral in its General framework and Temporary framework. ECB-compliant collateral (marketable) is divided into five haircut categories, which differ with regard to issuer classification and type of collateral. The haircut category is the key factor in determining haircuts to which certain debt securities are subject. The haircuts also differ on the basis of residual term to maturity and coupon structure. Haircuts for bonds with variable coupons correspond to those of fixed-interest bonds (of the respective category). In 2023, a lot changed with regard to the question of which assets are to be assigned to which haircut category. As the ECB's Governing Council considers the risk profile of Jumbo Pfandbriefe to be similar to that of other legally regulated covered bonds and multi-cédulas (Spanish covered community bonds), it was decided that the same haircuts of haircut category II should apply to all of the above from now on. Furthermore, debt instruments issued by the EU are now assigned to haircut category I (previously category II). Another new feature is that there are three new categories for instruments with the longest remaining term of more than ten years, namely 10-15 years, 15-30 years and 30+ years. This, together with the decision to apply a maturity-dependent theoretical valuation adjustment, is intended to improve the granularity of the risk coverage of this theoretical valuation, which is particularly relevant for instruments with longer maturities. There were also some changes with regard to the valuation discounts within the individual haircut categories in 2023. Against the backdrop of the pandemic, the ECB announced extensive temporary adjustments to the collateral framework in April 2020, which were aimed at alleviating potential liquidity tensions on the financial markets of the single currency area. Originally, the temporary adjustment provided for a general reduction in collateral discounts by 20% until September 2021 (subsequently until June 2022). This was gradually terminated by resolution of the ECB's Governing Council on 23 March 2022: from 8 July 2022 until the end of June 2023, a flat-rate reduction in haircuts of 10% applied. Since July 2023, the regulations from the latest version of the Guideline (EU) 2016/65 now apply, which, as a result of the aforementioned equal treatment of bonds with fixed and variable coupons, have apparently led to a systematic simplification and with which the valuation haircuts have at least returned to their pre-pandemic levels, or in some cases, have even been increased. The aforementioned creation of three new categories for terms of ten years or more also results in higher discounts for longer terms. Instead of the announced "step-by-step approach" to gradually reduce the "risk tolerance of the Eurosystem back to pre-pandemic levels", ultimately the ECB actually tightened things up again. For further information on the ECB's repo collateral rules, please refer to our weekly publication from 15 November and our Issuer Guide – German Laender 2023. A small note also on the subject of risk weights: at the end of 2023 another stage of Article 500a of the CRR expired, according to which 50% of the risk weight determined in accordance with Art. 114 (2) CRR must now be applied from 2024 onwards to exposures denominated in a currency that is not the domestic currency of the member state in question, but is the domestic currency of another member state. In 2023, this figure was still 20%.

Our coverage: issuers come and go

After saying goodbye to two issuers (HSHFF and IINVBK) in 2022 and welcoming three new faces (IDBINV, LFIESG and IDFMOB), 2023 was less eventful in this respect. From the German promotional banks segment, we analysed Investitions- und Strukturbank Rheinland-Pfalz (ticker: ISBRLP) in detail for the first time as part of our Issuer Guide – German Agencies 2023. The ISBRLP supports private individuals as well as regional companies and municipalities in the federal state of Rhineland-Palatinate in their commercial and residential activities via funding programmes. In the area of business development, ISBRLP supplements its strategic funding programme (e.g. low-interest loans, grants) with advisory services. The bank's liability mechanism consists of an explicit guarantee from Rhineland-Palatinate, institutional liability and the guarantor liability. As a result of this strong liability provision, receivables from ISBRLP are therefore recognised in accordance with CRR/Basel III with a risk weight of 0%. We have also included the Magyar Export-Import Bank (ticker: MAEXIM) in our coverage. As the name suggests, MAEXIM focuses on promoting Hungarian exports by granting loans and export guarantees to small and medium-sized enterprises. The achievement of climate targets and a sustainable future are prioritised in its business activities. The refinancing of MAEXIM is secured by an annually redefined, state-guaranteed framework.

The drama of the federal budget: debt brake suspended for the fourth time in a row

At the beginning of November, it still looked as though the Federal Republic of Germany would be able to comply with the debt brake again in 2023, after it had been suspended in the previous three years as a result of COVID-19 and the energy price crisis. With a supplementary budget, the federal government had increased the credit authorisations by EUR 60bn in 2021 as a result of the pandemic. In the end, the money was not needed to deal with the pandemic and its consequences. The German government finally reallocated the money - with the approval of the Bundestag and with retroactive effect - to what is known as the Climate and Transformation Fund. A supposed win-win situation, which the constitutional judges in Karlsruhe put a stop to on 15 November. The ruling: unconstitutional. This was followed by weeks of recriminations, debates and a coalition committee. In the end, the debt brake for 2023 was suspended again, paving the way for a supplementary budget. After measuring the financial gap, there is now a shortfall of around EUR 17bn for 2024, which is to be closed through savings, such as the elimination of "climate-damaging" subsidies, or revenue increases, e.g. taxation of kerosene, while complying with the debt brake. However, the German government still reserves the right to subsequently invoke the emergency clause of the debt regulation in the event of a deterioration in Ukraine's military or financial situation during the war started by Russia.

A brief look at the German municipal bond segment

There was little in the way of news to report from the German municipal bond segment last year. Only the city of Dortmund (ticker: DRTMND) appeared on the market at the end of May and raised EUR 110m over seven years. The final spread was ms +38bp. The bond carries a coupon of 3.25%. For further information on the market for German municipal bonds, please refer to our weekly publication from 27 September.

The SSA segment in the context of PSPP/PEPP

Reinvestments as part of the PSPP ended in July 2023 and a reduction in volumes is also expected for the PEPP in the new year. Thus, the only newcomer on our list (but not in our coverage) of acquisitions this year was the Lithuanian UAB Valstybės investicinis kapitalas (ticker: VLSTIK). Two of the issuer’s ISINs were included in the Eurosystem's books in 2023. Otherwise, there were few surprises: German Laender continued to be the most sought-after sub-segment of the European SSA market. By the end of 2023, 590 different German bonds had been purchased by the ECB or the relevant central banks since 2015. This means that the total rose by 35 new ISINs from German Laender last year. Bonds from North Rhine-Westphalia (ticker: NRW) and Lower Saxony (ticker: NIESA) are most frequently represented, with 83 and 65 ISINs purchased respectively. Apart from German Laender, 140 bonds from other European regional issuers acquired since 2015 were on the Eurosystem's books at the end of 2023. Compared with 2022, ten ISINs were added. Bonds from the Spanish capital Madrid (ticker: MADRID) have been the most sought-after since 2015 with 24 bonds, followed by the Belgian region of Wallonia (ticker: WALLOO) with 23 ISINs. Lesser-known tickers such as the Belgian issuers LCFB and BRUCAP appear here too. It remains interesting to note that not a single bond from an Italian region has been acquired. We believe the overall market for Italian government bonds is sufficiently large not to have to deviate from BTPs and still be able to comply with the capital key. For a long time, this also applied to Austria on a much smaller scale.

ECB purchase list for the PSPP – regional European issuers

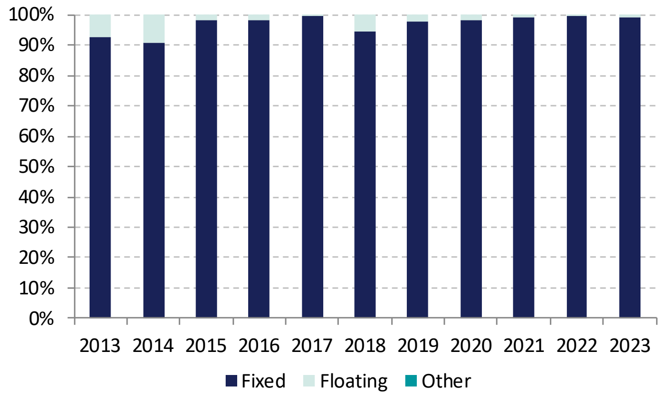
Issuer	Jurisdiction	ISINs already purchased	Issuer	Jurisdiction	ISINs already purchased
BADWUR	DE	25	IDF	FR	5
BAYERN	DE	14	VDP	FR	3
BERGER	DE	59	MADRID	ES	24
BREMEN	DE	55	CASTIL	ES	6
BRABUR	DE	27	BASQUE	ES	12
HESSEN	DE	56	ARAGON	ES	1
HAMBRG	DE	28	ANDAL	ES	8
NIESA	DE	65	BALEAR	ES	1
MECVOR	DE	3	JUNGAL	ES	4
NRW	DE	83	NAVARR	ES	1
RHIPAL	DE	46	GENCAT/CANARY	ES	1 each
SAARLD	DE	12	WALLOO	BE	23
SCHHOL	DE	43	FLEMSH	BE	19
SAXONY	DE	11	LCFB	BE	8
SACHAN	DE	13	BRUCAP	BE	9
THRGN	DE	23	GOVMAD	PT	4
BULABO	DE	1	AZORES	PT	9
LANDER	DE	26	NIEDOE	AT	1
Total	**∑**	**590**	**Total**	**∑**	**140**

Source: ECB, NORD/LB Floor Research

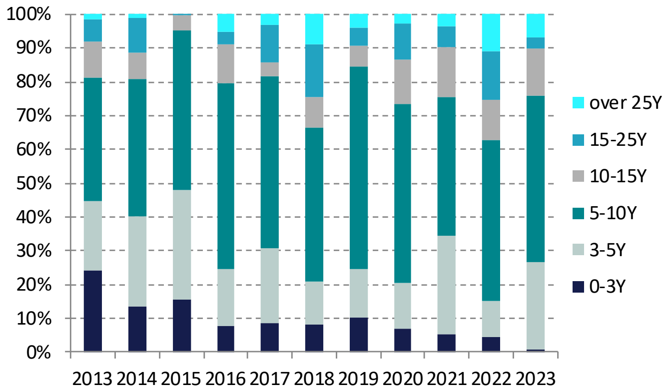
Fixed-coupon bonds continue to dominate issuance activities

With interest rates falling steadily since 2008, the importance of fixed-coupon bonds also continually increased. Their share recently stabilised at an extremely high level. In 2018, there were signs of a very slight trend reversal in the short term: FRN issuance increased for the first time since 2014, but (almost) came to a standstill again the following year. At that time, the share of FRNs as a percentage of market volume was 5.4% and therefore remained at a low level. Since 2019, this share has fallen from 2.2% to 1.9% (2020) and 0.8% (2021) to a low of 0.4% in 2022. Last year, this movement was halted again, albeit only minimally. In 2023, we recorded a FRN share of 0.8%. In terms of volume, EUR 2.0bn of the total EUR benchmark market volume (EUR 248.1bn) therefore had a variable interest rate. Even in the past, they never accounted for a properly large share. Only a genuine normalisation of monetary policy coupled with diverging expectations about the medium to long-term development of the general interest rate level could cause the proportion of floaters to increase much more sharply again, as could be seen in the years 2011-2014. Although we have now reached the end of the interest rate hike cycle, it remains to be seen whether the interest rate cuts we are forecasting from H2 2024 (at the earliest) will lead to a significant increase in the floater share.

EUR benchmarks by coupon type



EUR benchmarks by maturity range

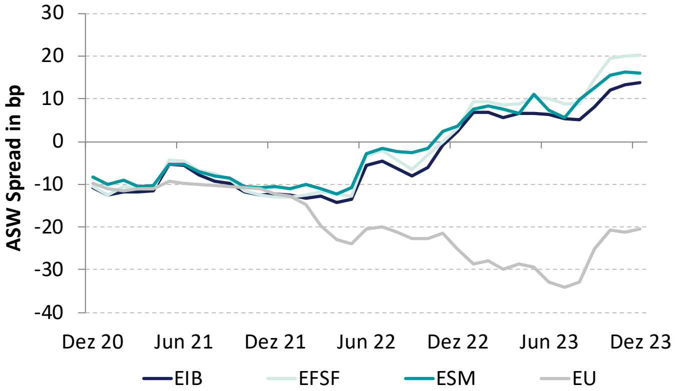


NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn.
Source: Bloomberg, NORD/LB Floor Research

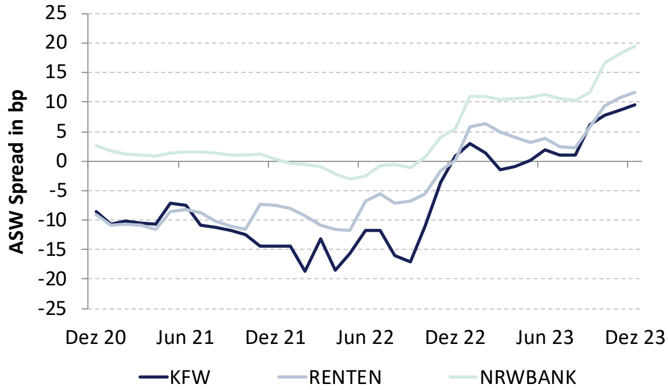
Maturity buckets continue to trend towards shorter terms

The dynamic market environment also left its mark on maturity buckets last year. Short maturities clearly dominated the EUR benchmark issues. However, there was one exception, with the 0-3Y maturity range, which has steadily become less relevant since 2020, now standing at 0.6% in 2023. Remember, in 2013, this segment still accounted for 26.0% of all EUR benchmark issues. As can be seen from the chart above, however, the relative share in the 3-5Y maturity range increased significantly. While the share was just under 11% in 2022, it more than doubled to just under 26% in 2023. The share in the next largest bucket (5-10Y) also increased from 47.5% to 49.4%, while the 10-15Y range also recorded slight growth. The maturity range of 15-25 years suffered the most significant losses. While this cluster still accounted for 14.2% of issues in 2022, it was only 3.2% in 2023.

European supras: ASW Spreads 10y



German agencies: ASW Spreads 10y

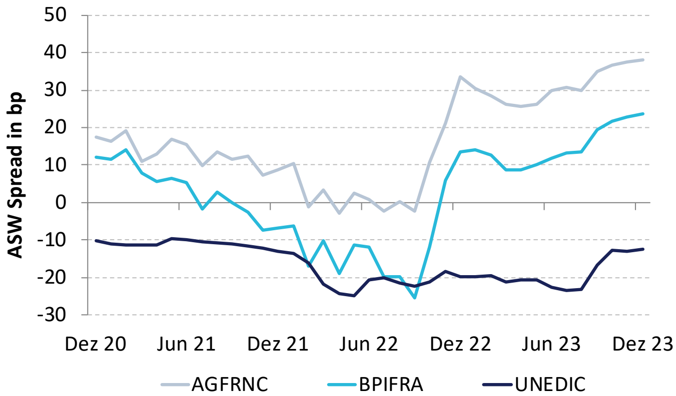


Source: Bloomberg, NORD/LB Floor Research

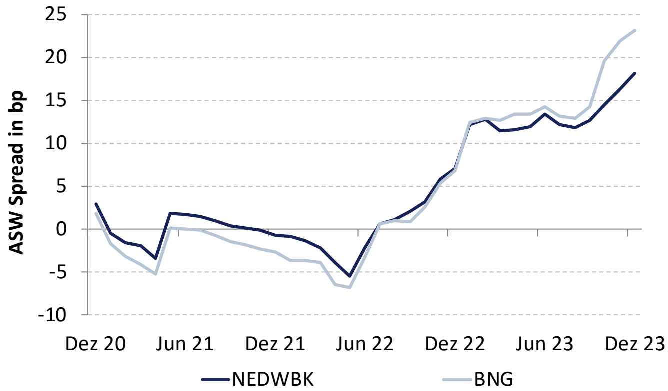
Spread movements show two faces over the course of the year

Spread movements in the ten-year range for all sub-asset classes can be described as follows: after spreads had stabilised at a relatively constant level up to the middle of the year, a renewed widening trend began in H2 2023. This has now also had a significant impact on the EU's ASW spreads, which were still only heading in one direction until the middle of the year - namely downwards. In the ten-year range, the other E-Supras continue to boast positive ASW spreads, while those of the EU continue to be negative. We also observed continued repricing in the German agency segment from H2 2023, although this was less pronounced than in 2022. Due to the guarantee from NRW (and not from the federal government, as is the case with KfW and Rentenbank), NRWBANK spreads were still slightly higher in comparison.

French agencies: ASW Spreads 10y



Dutch agencies: ASW Spreads 10y



Source: Bloomberg, NORD/LB Floor Research

Similar pattern for French and Dutch issuers

Widening can also be observed for French and Dutch issuers. It is noticeable that UNEDIC has now also seen widening, although the level is still very low in a historical context. The regulatory advantage (risk weighting: 0%) over BPIFRA and AGFRNC plays a role here. Spreads also widened further for Dutch agencies over the course of the year.

Outlook

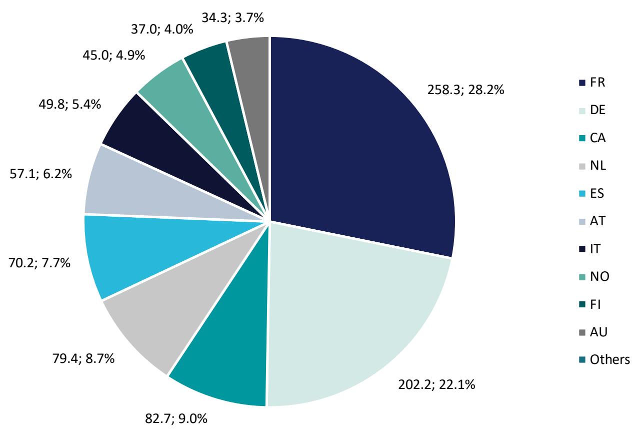
As outlined in our final weekly publication of 2023 as part of our SSA Outlook 2024, we expect the SSA segment in 2024 to continue to be dominated by current geopolitical and economic crises, potential interest rate cuts and dwindling reinvestments in the ECB's purchasing programs. We should mention the PEPP in particular, with reinvestments from H2 2024 onwards set to decrease by an average of EUR 7.5bn per month. Moreover, we do not expect any drastic movement in the spread landscape in our baseline scenario. Over the next 18 months to three years, spread levels from 2013 could be a realistic target for most issuers within our coverage. We are also curious about the seasonal patterns, such as how strong January will be. The effects of the ongoing energy crisis remain difficult to predict - additional funding requirements in this context cannot be ruled out. When it comes to Laender funding, everything hinges on the structuring or (non-)suspension of the debt brake - and its possible reform, provided there is the political will to do so. Surprises are possible at this point – as was the case last year. And speaking of 2023…

Conclusion

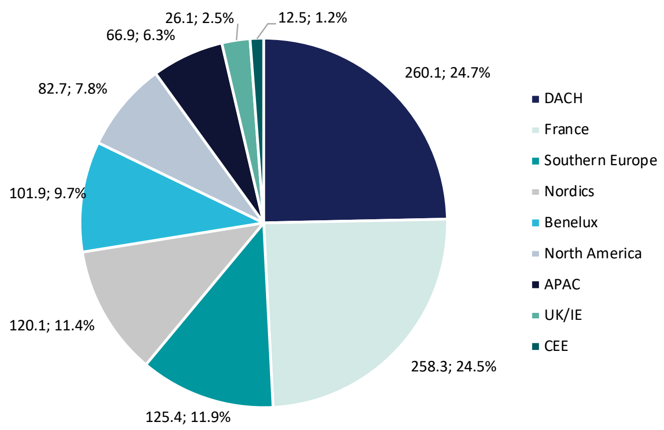
…The past year was extraordinary and difficult to squeeze into an annual review. Moreover, it is far too easy to forget what else happened away from rampant inflation, the energy crisis and wars. Overall, at EUR 248.1bn, the issuance volume of EUR benchmarks did not quite hit the heights of 2022 and (in particular) 2021, but is still well above the pre-pandemic level. From our perspective, the main trends have hardly changed. In terms of maturity preferences, the focus remained on shorter rather than ultra-long-term bonds. Due to the ECB's interest rate decisions and the end of all reinvestments under the PSPP from July 2023, which is particularly relevant for our sub-segment, spreads continued to widen in the second half of the year. We wish all our readers a successful and, above all, healthy 2024!

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



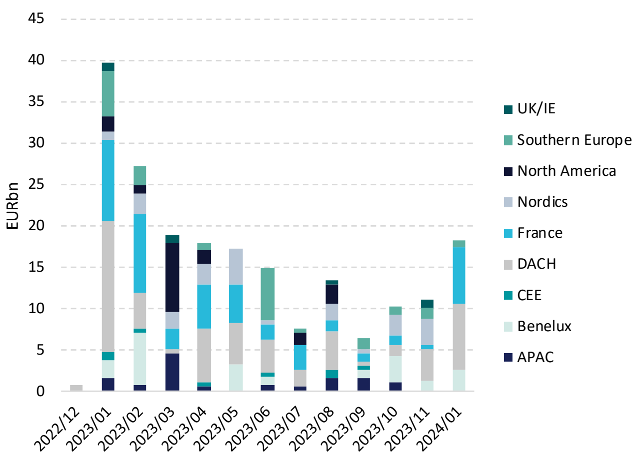
EUR benchmark volume by region (in EURbn)



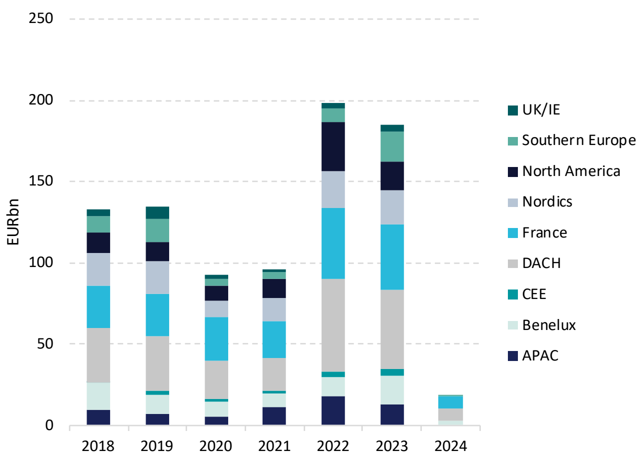
Top-10 jurisdictions

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	258.3	249	23	0.97	9.4	4.8	1.30
2	DE	202.2	287	37	0.65	7.9	4.1	1.27
3	CA	82.7	61	0	1.33	5.5	2.7	1.14
4	NL	79.4	80	3	0.93	10.4	6.1	1.20
5	ES	70.2	55	5	1.16	11.1	3.3	2.03
6	AT	57.1	96	5	0.58	8.2	4.6	1.40
7	IT	49.8	60	2	0.80	8.6	3.5	1.63
8	NO	45.0	55	12	0.82	7.3	3.6	0.78
9	FI	37.0	41	4	0.89	6.9	3.6	1.49
10	AU	34.3	33	0	1.04	7.2	3.4	1.56

EUR benchmark issue volume by month

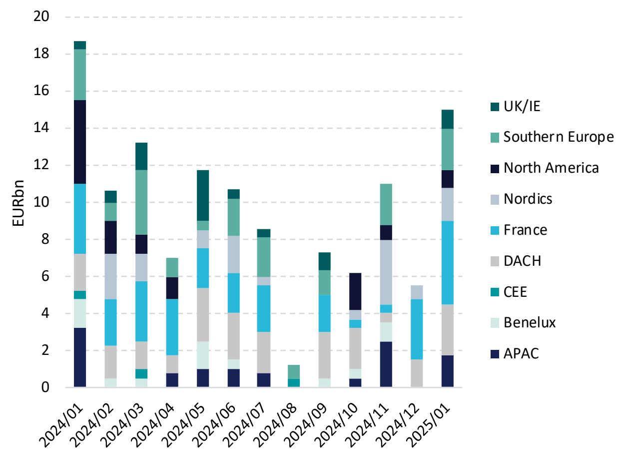


EUR benchmark issue volume by year

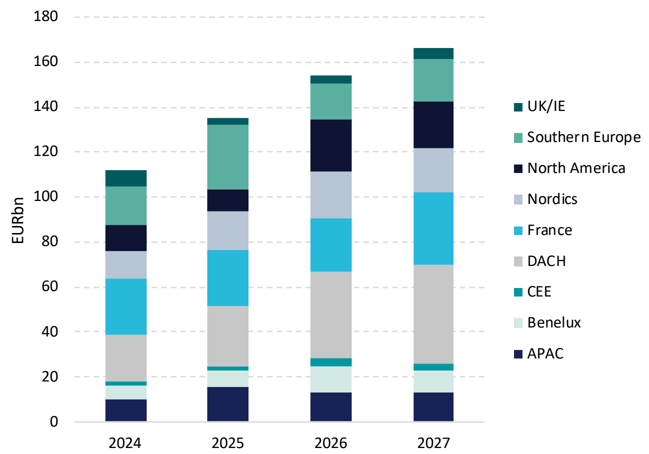


Source: market data, Bloomberg, NORD/LB Floor Research

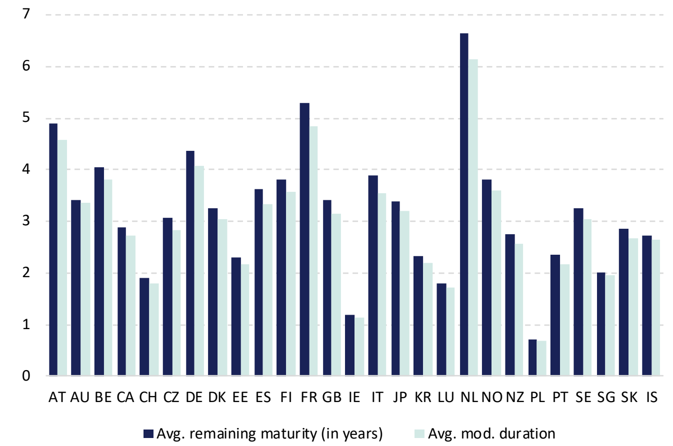
EUR benchmark maturities by month



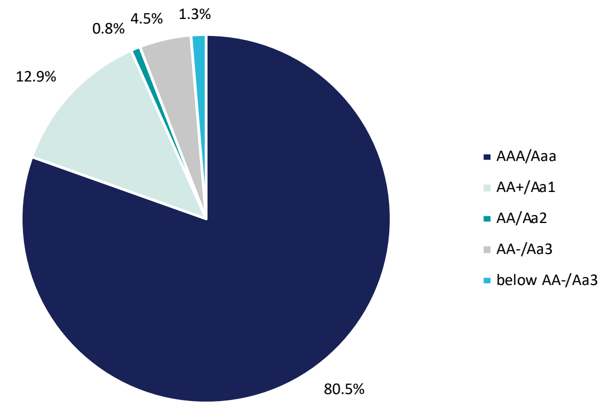
EUR benchmark maturities by year



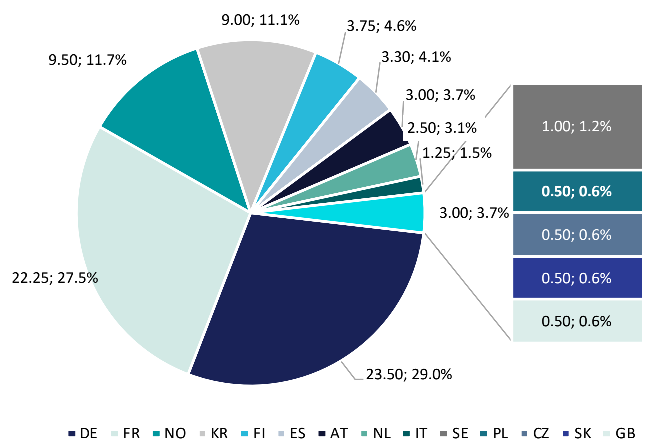
Modified duration and time to maturity by country



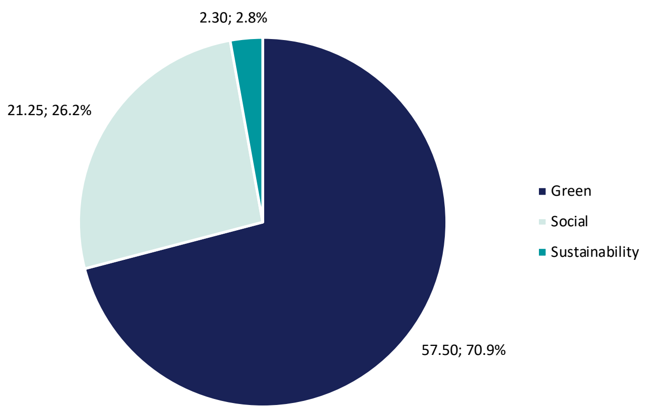
Rating distribution (volume weighted)



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



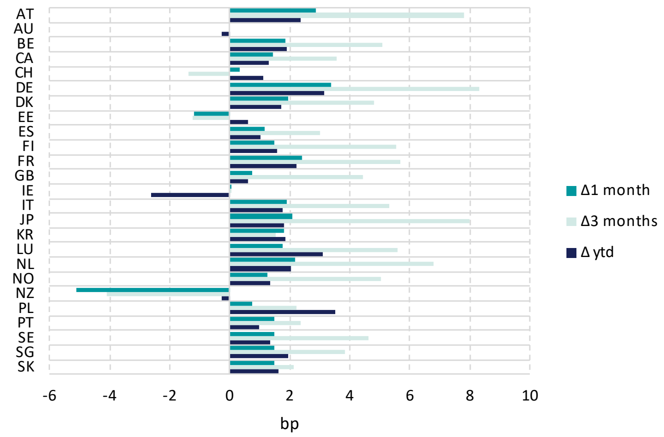
EUR benchmark volume (ESG) by type (in EURbn)



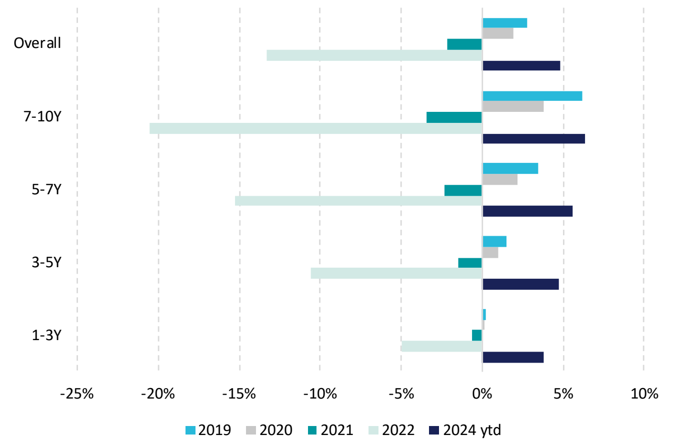
Source: market data, Bloomberg, NORD/LB Floor Research

NORD/LB

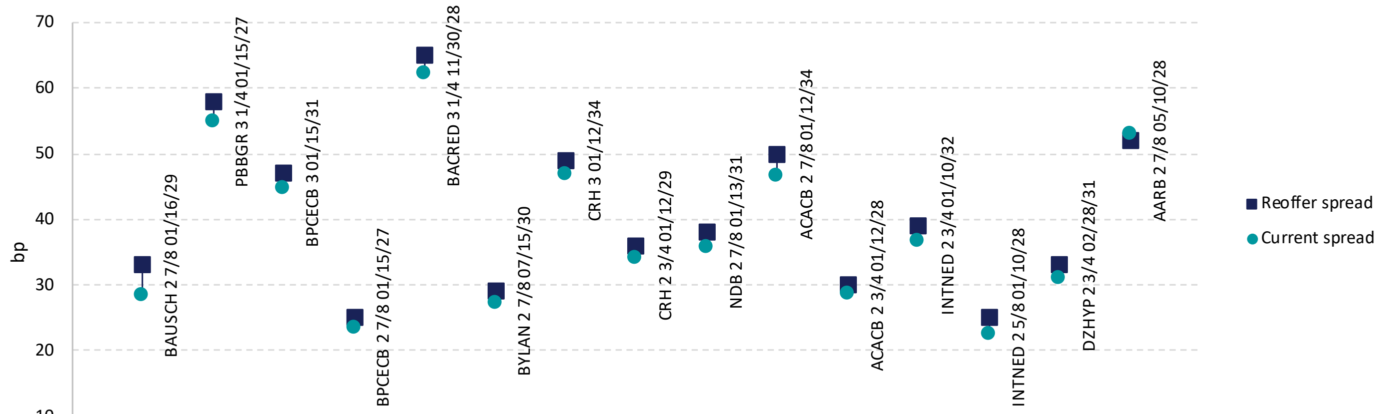
Spread development by country



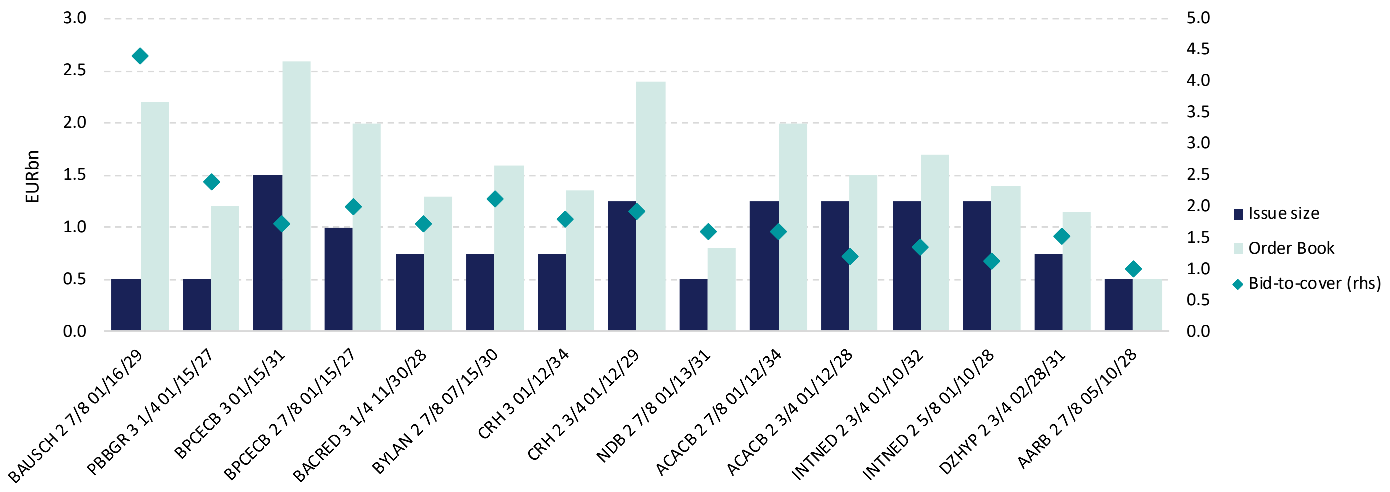
Covered bond performance (Total return)



Spread development (last 15 issues)



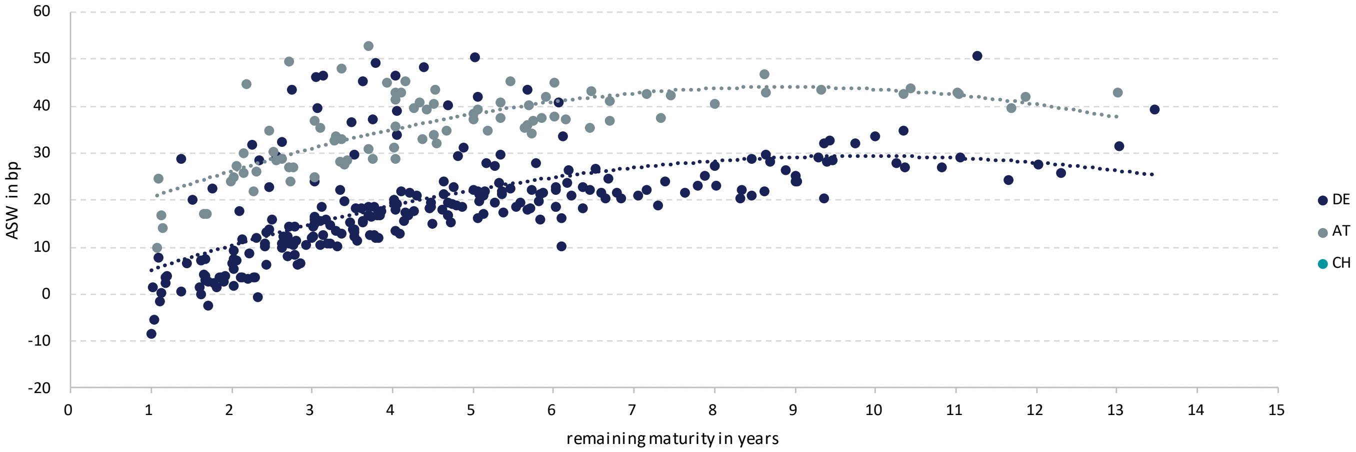
Order books (last 15 issues)



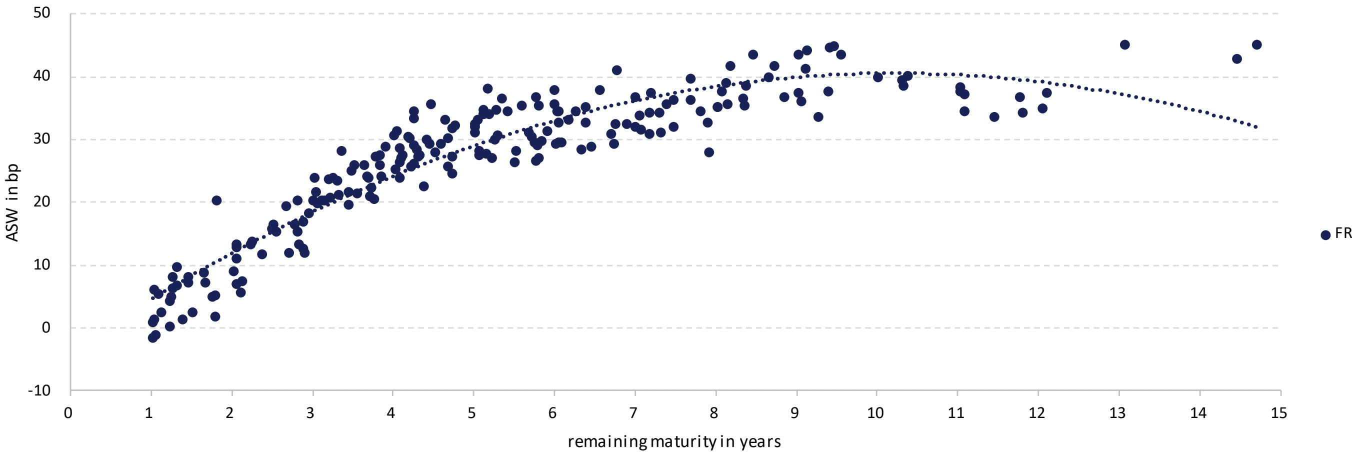
Source: market data, Bloomberg, NORD/LB Floor Research

Spread overview[1]

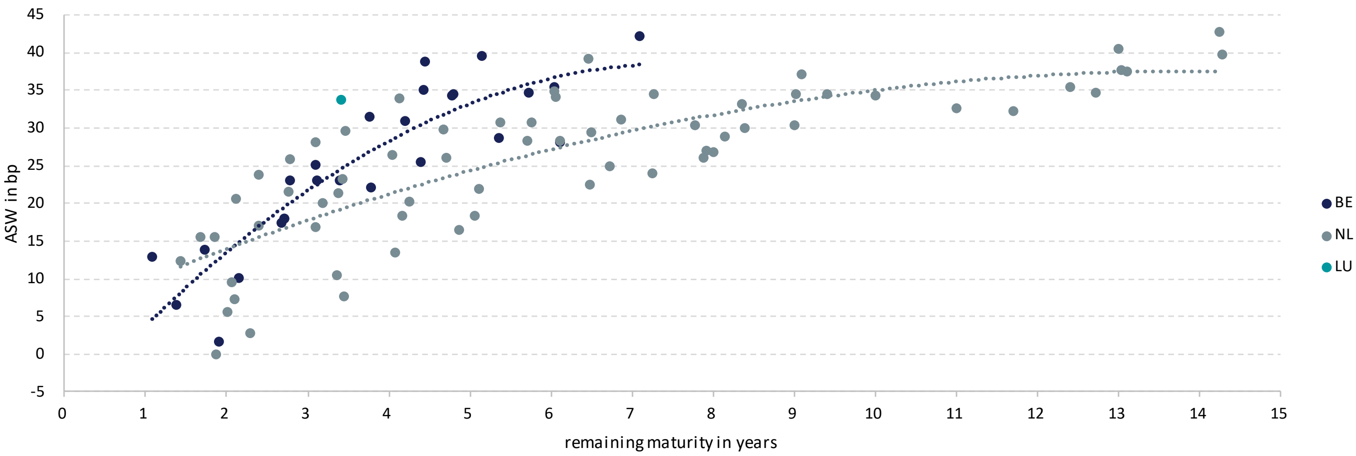
DACH



France

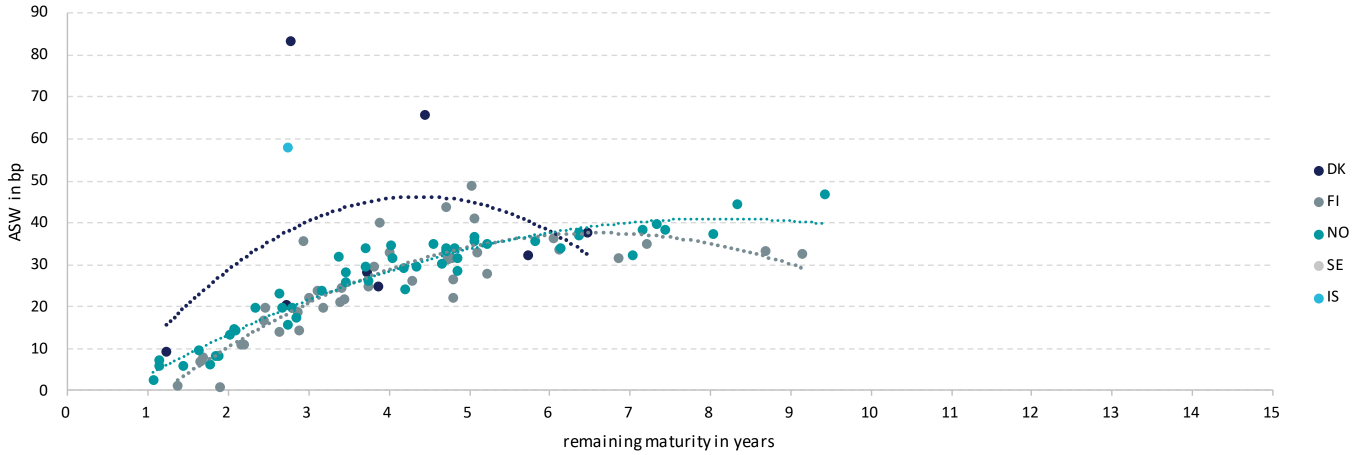


Benelux

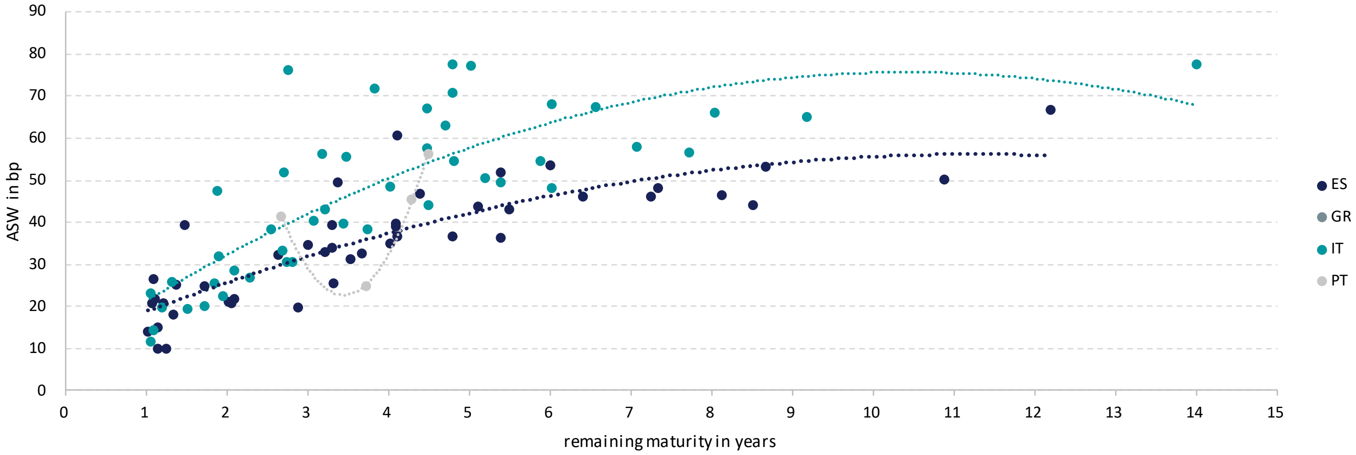


Source: market data, Bloomberg, NORD/LB Floor Research [1]Time to maturity 1 ≤ y ≤ 15

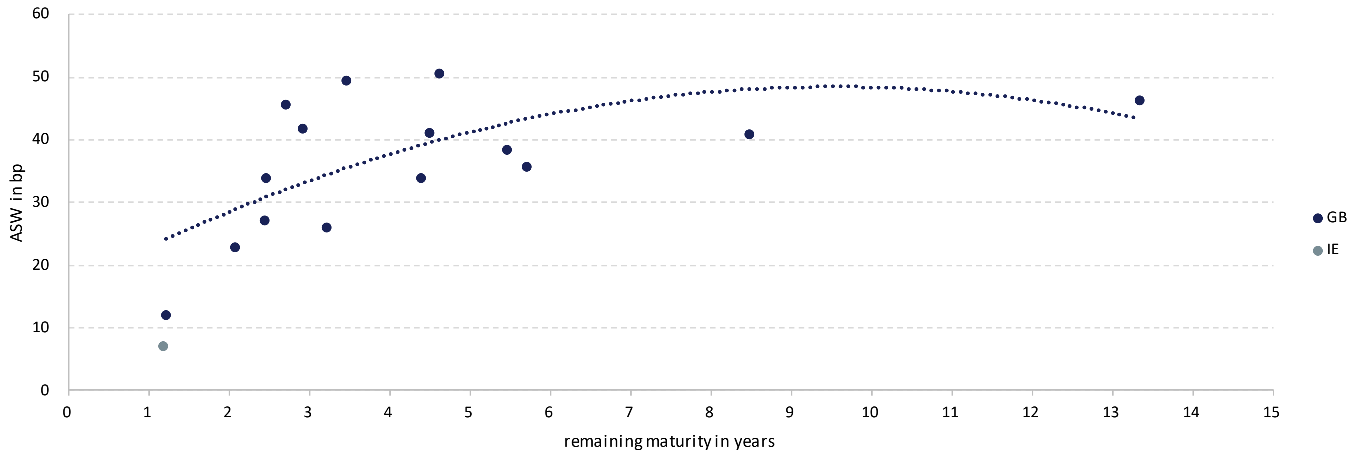
Nordics



Southern Europe

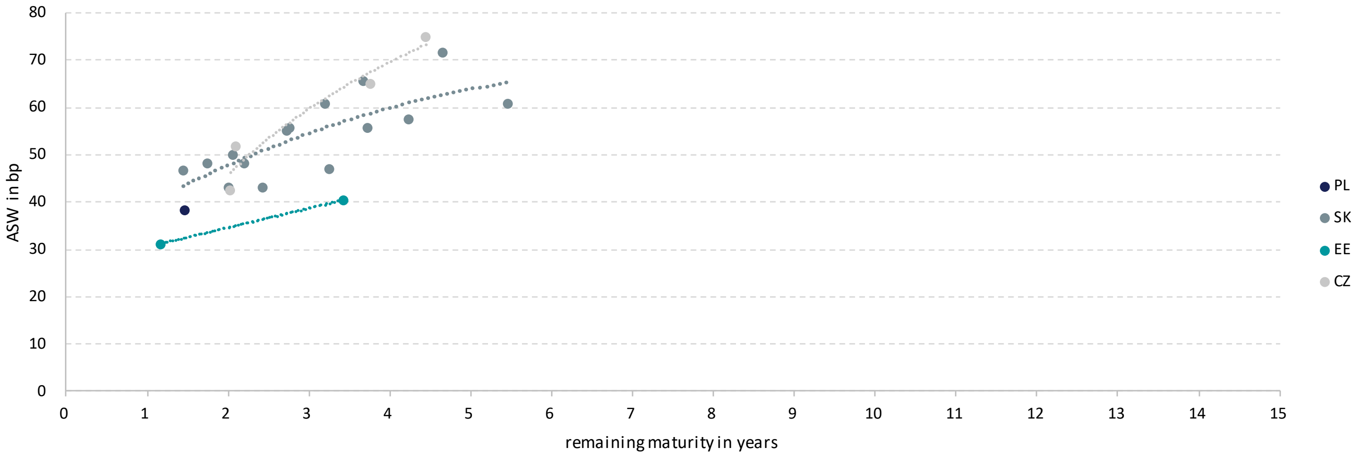


UK/IE

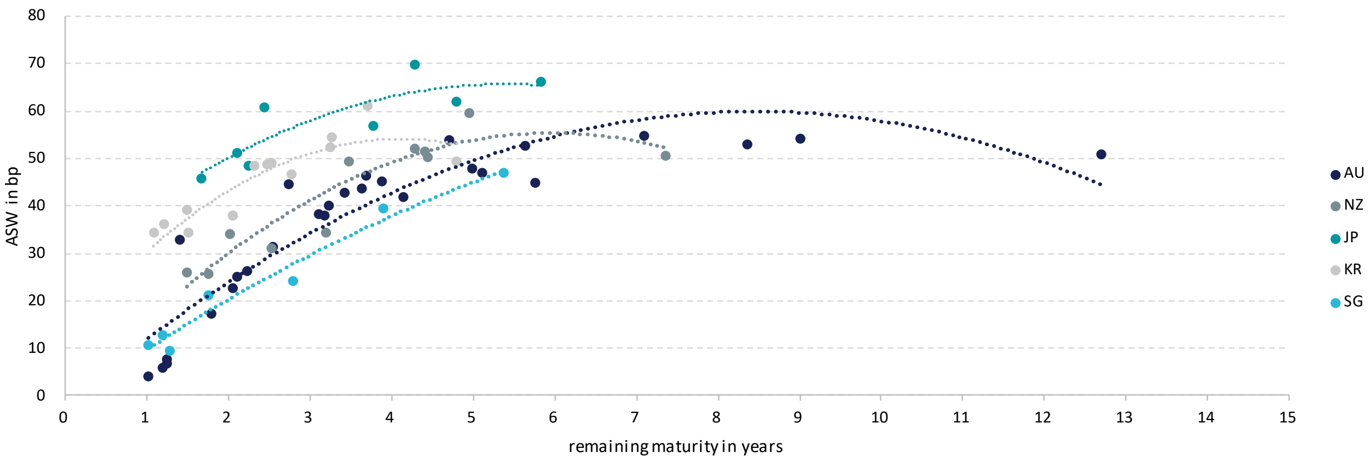


Source: market data, Bloomberg, NORD/LB Floor Research

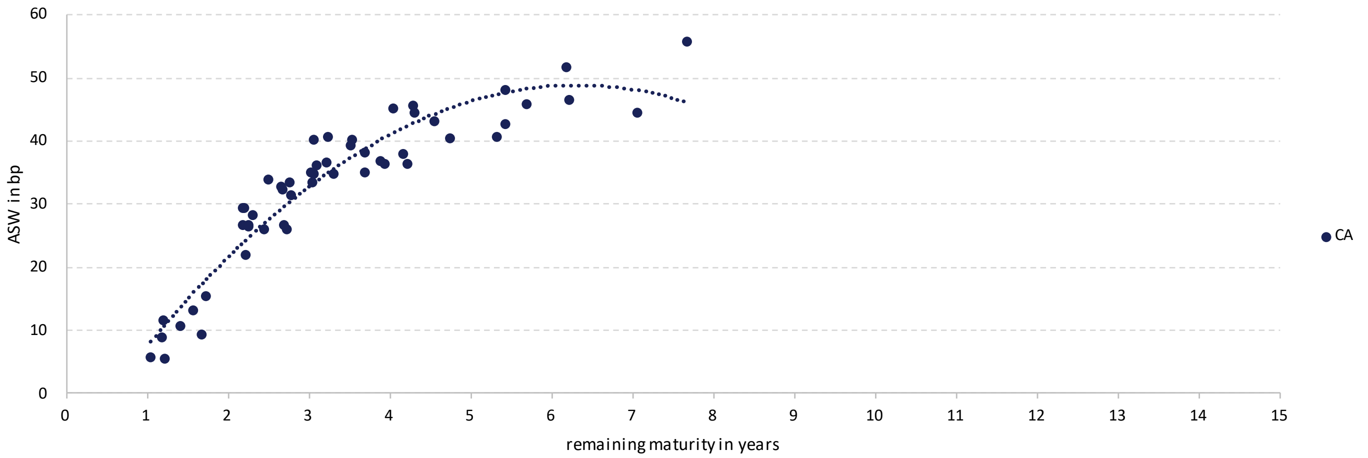
CEE



APAC



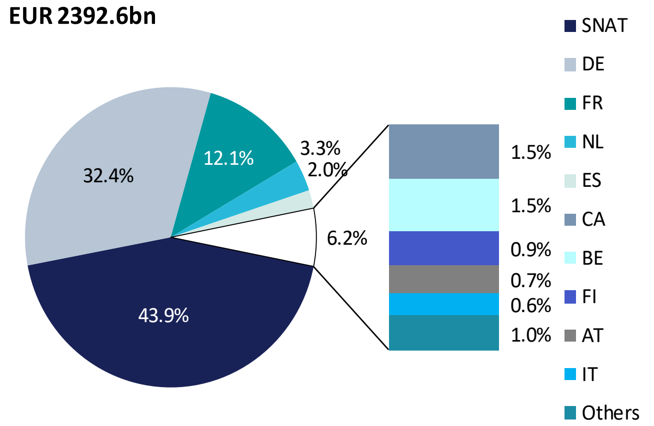
North America



Source: market data, Bloomberg, NORD/LB Floor Research

Charts & Figures
SSA/Public Issuers

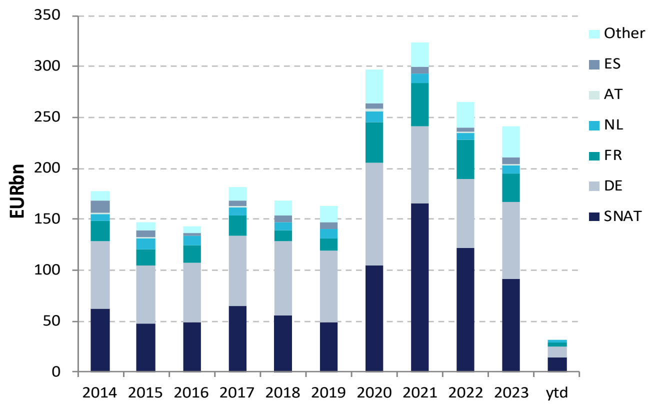
Outstanding volume (bmk)



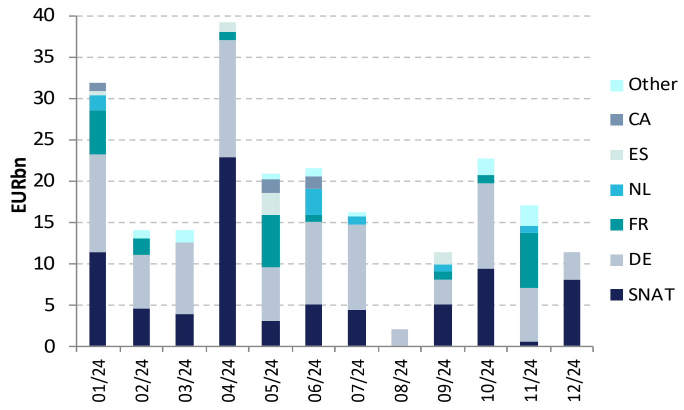
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	1,049.9	231	4.5	7.9
DE	776.3	574	1.4	6.2
FR	290.5	196	1.5	5.9
NL	80.0	69	1.2	6.6
ES	47.0	64	0.7	4.6
CA	35.8	25	1.4	4.1
BE	35.2	38	0.9	10.6
FI	22.4	24	0.9	4.6
AT	17.8	22	0.8	4.4
IT	14.5	18	0.8	4.5

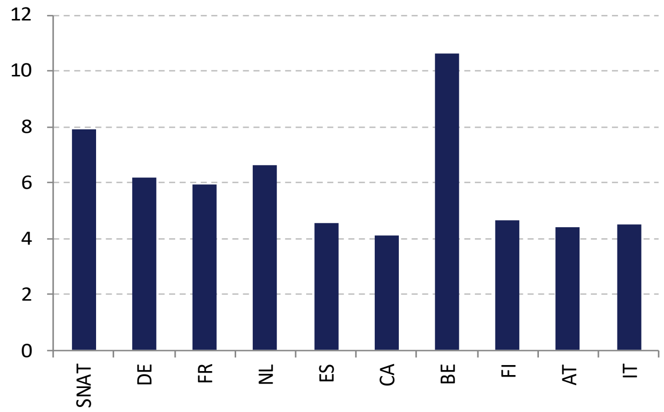
Issue volume by year (bmk)



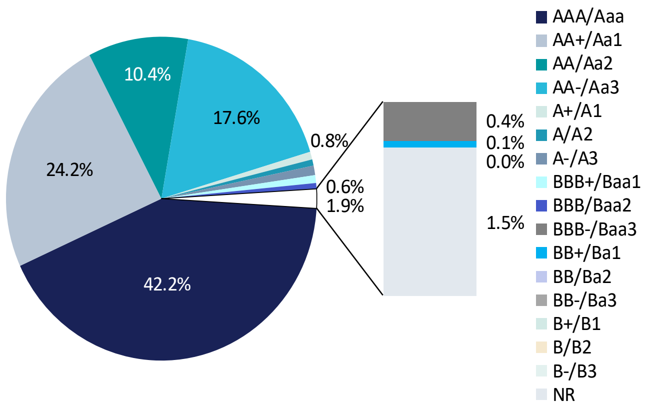
Maturities next 12 months (bmk)



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

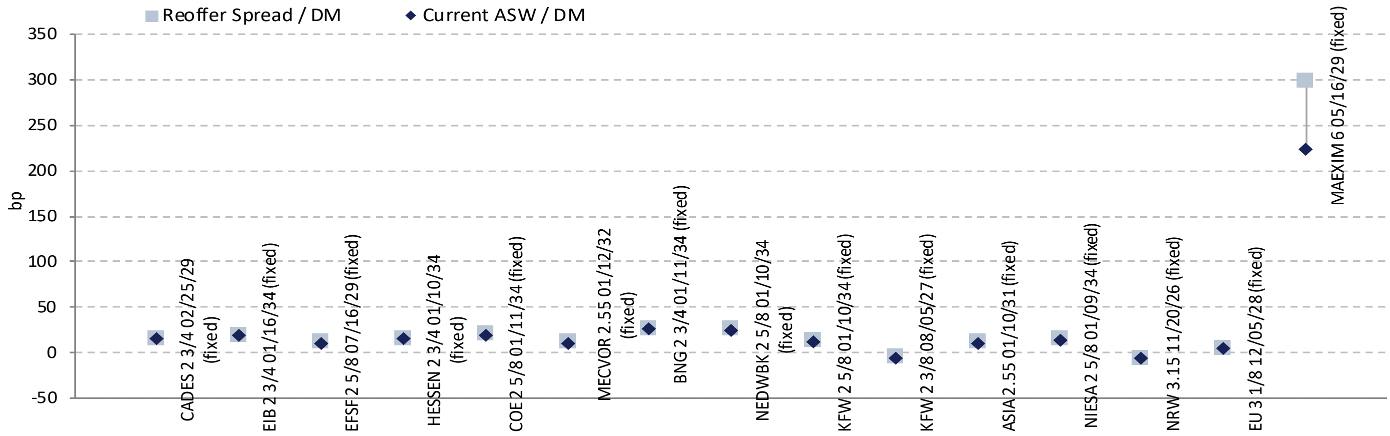


Rating distribution (vol. weighted)

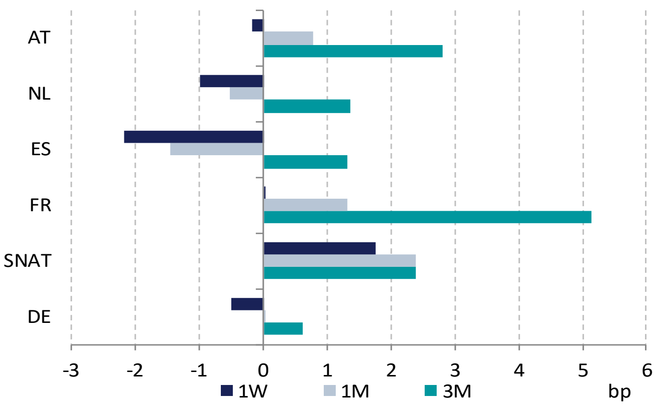


Source: Bloomberg, NORD/LB Floor Research

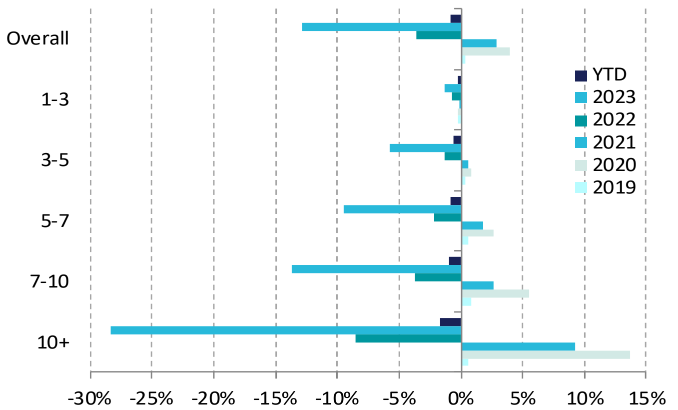
Spread development (last 15 issues)



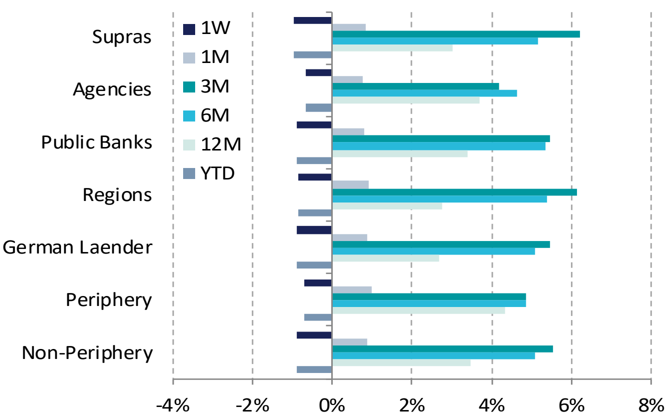
Spread development by country



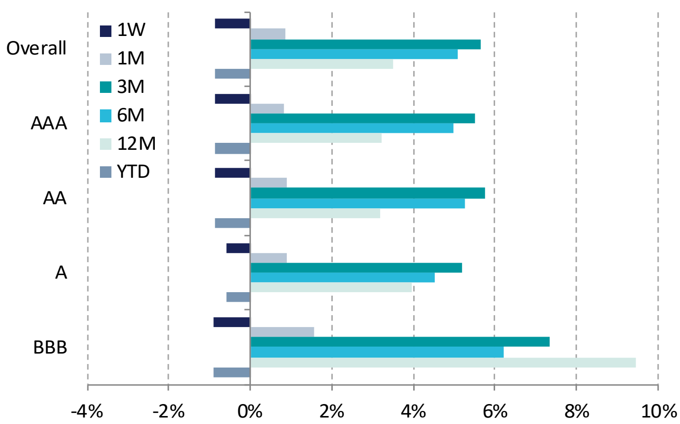
Performance (total return)



Performance (total return) by segments

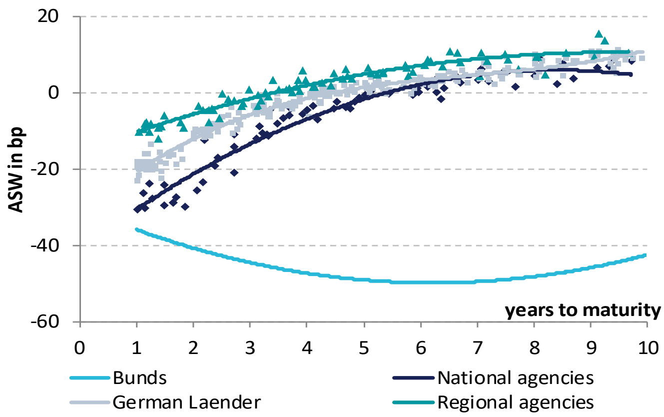


Performance (total return) by rating

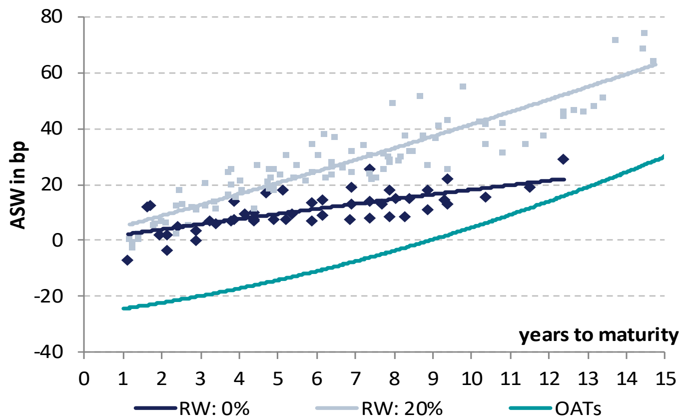


Source: Bloomberg, NORD/LB Floor Research

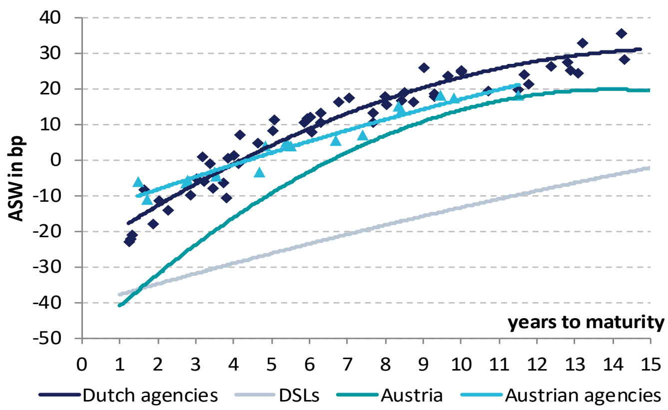
Germany (by segments)



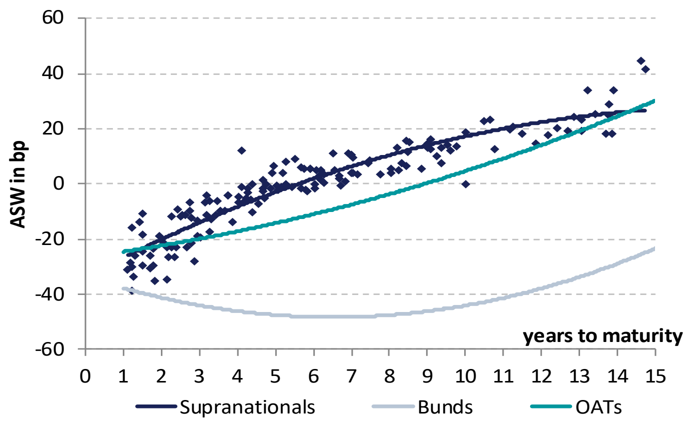
France (by risk weight)



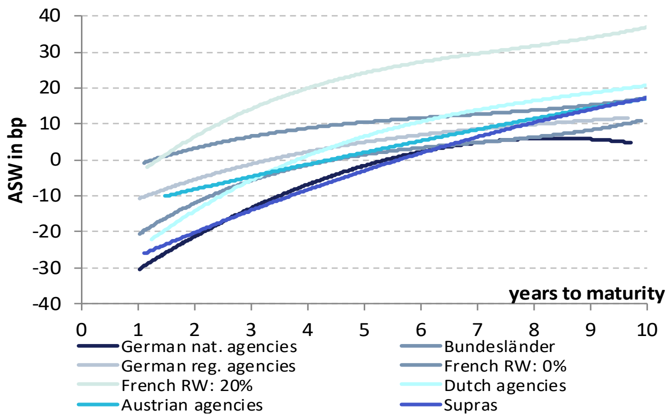
Netherlands & Austria



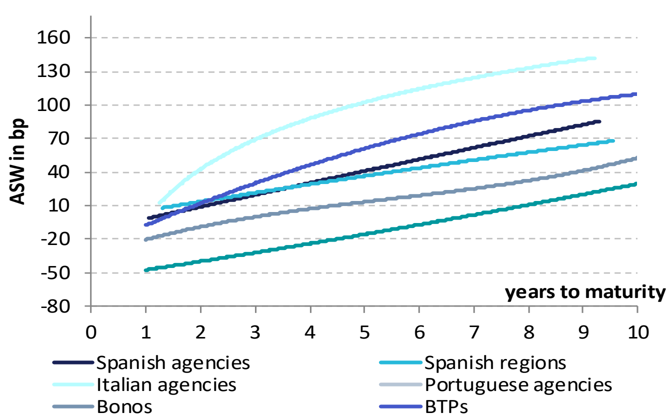
Supranationals



Core



Periphery



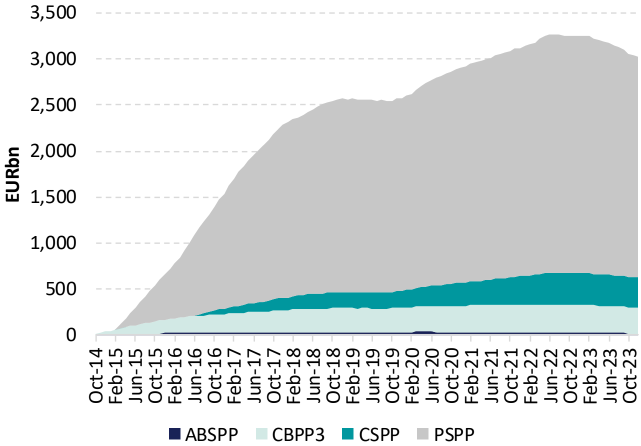
Source: Bloomberg, NORD/LB Floor Research

ECB tracker

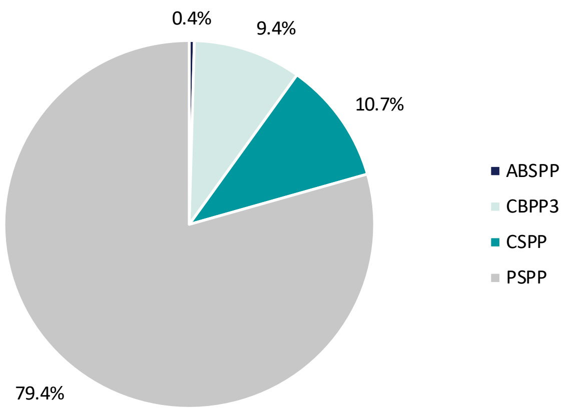
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Nov-23	13,840	286,174	325,481	2,412,976	3,038,471
Dec-23	13,350	285,620	323,921	2,403,035	3,025,926
Δ	-478	-408	-1,355	-6,776	-9,017

Portfolio development

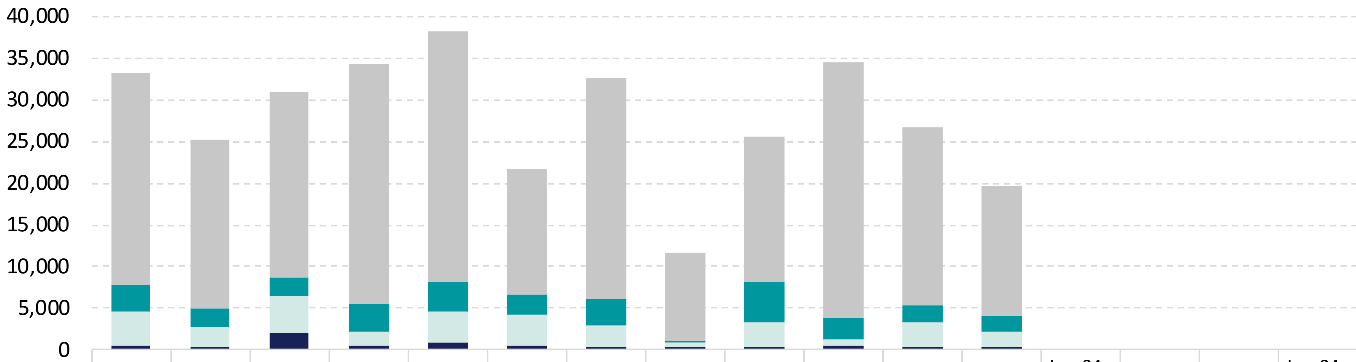


Portfolio structure



Source: ECB, NORD/LB Floor Research

Expected monthly redemptions (in EURm)



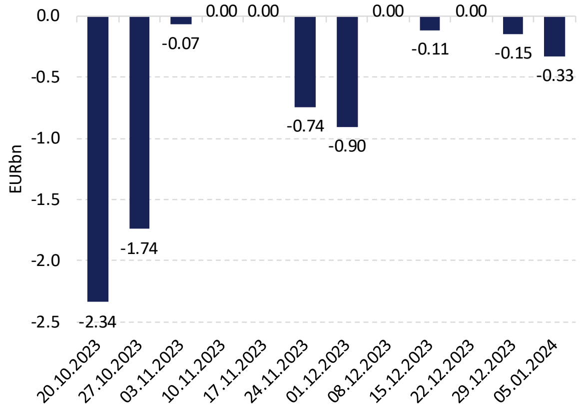
	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-24 - Dec-24	2022	2023	Jan-24 - Dec-24
APP	33,278	25,253	31,064	34,278	38,293	21,656	32,766	11,598	25,530	34,461	26,700	19,650	334,527	299,142	331,563	334,527
PSPP	25,524	20,372	22,413	28,712	30,194	14,974	26,653	10,533	17,440	30,578	21,298	15,579	264,270	228,585	255,025	264,270
CSPP	3,101	2,075	2,188	3,316	3,463	2,462	3,204	244	4,738	2,720	2,031	1,944	31,486	17,670	31,251	31,486
CBPP3	4,109	2,449	4,434	1,814	3,836	3,777	2,558	541	2,993	736	3,136	1,790	32,173	41,244	35,147	32,173
ABSPP	544	357	2,029	436	800	443	351	280	359	427	235	337	6,598	11,643	10,140	6,598

Source: ECB, Bloomberg, NORD/LB Floor Research

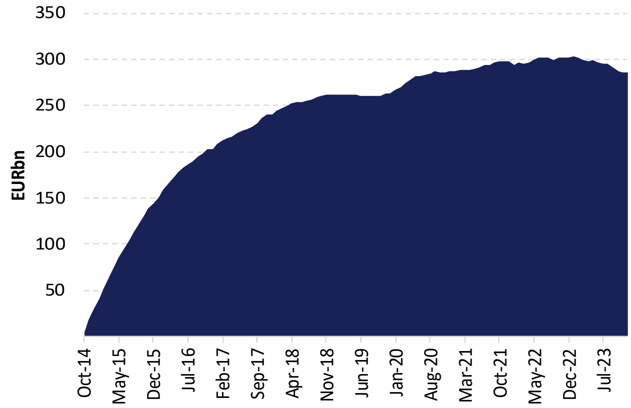
NORD/LB

Covered Bond Purchase Programme 3 (CBPP3)

Weekly purchases

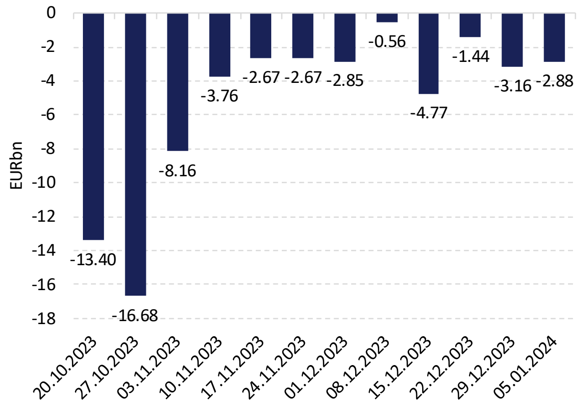


Development of CBPP3 volume

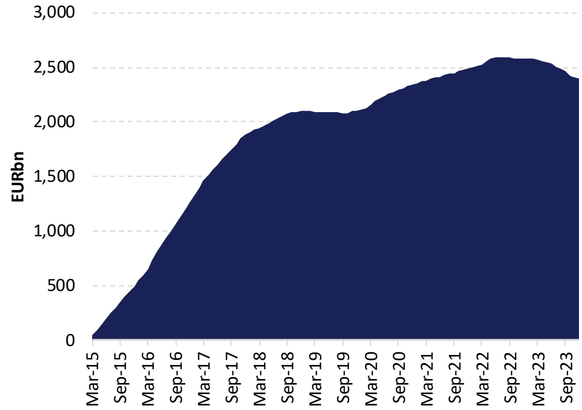


Public Sector Purchase Programme (PSPP)

Weekly purchases



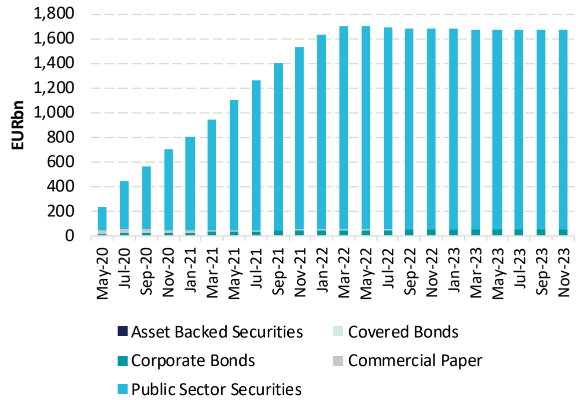
Development of PSPP volume



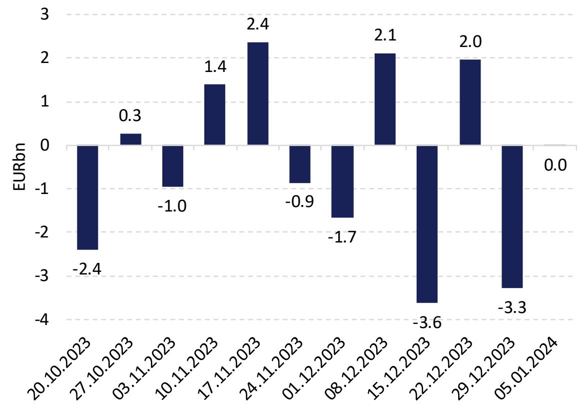
Source: ECB, Bloomberg, NORD/LB Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Portfolio development



Weekly purchases



Source: ECB, Bloomberg, NORD/LB Floor Research

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
37/2023 ♦ 13 December	▪ Our view of the covered bond market heading into 2024 ▪ SSA outlook 2024: ECB, NGEU and the debt brake in Germany
36/2023 ♦ 06 December	▪ The covered bond universe of Moodys: an overview ▪ Teaser: Issuer Guide – Nordic Agencies 2023
35/2023 ♦ 29 November	▪ ESG covered bonds: a look at the supply side ▪ Current risk weight of supranationals & agencies
34/2023 ♦ 22 November	▪ Transparency requirements §28 PfandBG Q3/2023 ▪ Teaser: Issuer Guide – German Agencies 2023
33/2023 ♦ 15 November	▪ Development of the German property market ▪ ECB repo collateral rules and their implications for Supranationals & Agencies
32/2023 ♦ 08 November	▪ Norway: creation of SpareBank 1 Sor-Norge ▪ ECB: PEPP versus TPI – or: (re)investing where others like to go on holiday
31/2023 ♦ 25 October	▪ Banks in Europe: the EBA Risk Dashboard in Q2 2023 ▪ Teaser: Issuer Guide – Spanish Agencies 2023
30/2023 ♦ 18 October	▪ Focus on covered bond jurisdictions: Canada in the spotlight ▪ A closer look at Newfoundland and Labrador
29/2023 ♦ 11 October	▪ A covered bond view of Belgium ▪ Funding of Canadian provinces – an overview
28/2023 ♦ 27 September	▪ The covered bond universe of Moody's: an overview ▪ Update on DEUSTD – Joint German cities (bond No. 1)
27/2023 ♦ 20 September	▪ Newcomer to the EUR benchmark segment: Bendigo and Adelaide Bank set to expand issuer base in Australia ▪ Teaser: Issuer Guide – Austrian Agencies 2023
26/2023 ♦ 13 September	▪ ECBC publishes annual statistics for 2022 ▪ Teaser: Issuer Guide – Dutch Agencies 2023
25/2023 ♦ 06 September	▪ Covered bond market on the growth path: OLB looks set to join the ranks of EUR benchmark issuers ▪ NORD/LB Issuer Guide German Laender 2023 published
24/2023 ♦ 19 July	▪ Banks in Europe: EBA Risk Dashboard in Q1 2023 ▪ ECB repo collateral rules and German Laender
23/2023 ♦ 12 July	▪ Covereds: Half-year review and outlook for the second half of 2023
22/2023 ♦ 28 June	▪ Special publication on LCR classification and risk weights: a (regulatory) overview of the EUR benchmark segment ▪ ESG bonds of German Laender – significant further development
21/2023 ♦ 21 June	▪ ESG covered bonds: a look at the supply side ▪ Increasing exposure of E-supras to Ukraine
20/2023 ♦ 14 June	▪ Moody's covered bond universe – an overview ▪ Beyond Bundeslaender: Spanish regions

Appendix
Publication overview

Covered Bonds:

- Issuer Guide Covered Bonds 2023
- Covered Bond Laws
- Covered Bond Directive: Impact on risk weights and LCR levels
- Risk weights and LCR levels of covered bonds (updated semi-annually)
- Transparency requirements §28 PfandBG Q3/2023 (quarterly update)
- Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

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

Fixed Income Specials:

- ESG-Update 2023
- ECB: Scarf, dry cough and with less liquidity unwell into 2024
- ECB preview: A silent, but holy summit meeting?
- ECB: Now is not the time for forward guidance!

NORD/LB:	NORD/LB:	NORD/LB:	Bloomberg:
Floor Research	Covered Bond Research	SSA/Public Issuers Research	RESP NRDR <GO>

NORD/LB

Appendix
Contacts at NORD/LB

Floor Research

Dr. Frederik Kunze
Covered Bonds/Banks

+49 172 354 8977
frederik.kunze@nordlb.de

Lukas Kühne
Covered Bonds/Banks

+49 176 152 90932
lukas.kuehne@nordlb.de

Dr. Norman Rudschuck, CIIA
SSA/Public Issuers

+49 152 090 24094
norman.rudschuck@nordlb.de

Christian Ilchmann
SSA/Public Issuers

+49 157 851 64976
christian.ilchmann@nordlb.de

Lukas-Finn Frese
SSA/Public Issuers

+49 176 152 89759
lukas-finn.frese@nordlb.de

Sales

Institutional Sales	+49 511 9818-9440
Sales Sparkassen & Regionalbanken	+49 511 9818-9400
Sales MM/FX	+49 511 9818-9460
Fixed Income Relationship Management Europe	+352 452211-515

Trading

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

Origination & Syndicate

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

Sales Wholesale Customers

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

Treasury

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

Relationship Management

Institutionelle Kunden	rm-vs@nordlb.de
Öffentliche Kunden	rm-oek@nordlb.de

Disclaimer

The present report (hereinafter referred to as "information") was drawn up by NORDDEUTSCHE LANDESBANK GIROZENTRALE (NORD/LB). The supervisory authorities responsible for NORD/LB are the European Central Bank (ECB), Sonnemannstraße 20, D-60314 Frankfurt am Main, and the Federal Financial Supervisory Authority in Germany (Bundesanstalt für Finanzdienstleitungsaufsicht; BaFin), Graurheindorfer Str. 108, D-53117 Bonn and Marie-Curie-Str. 24-28, D-60439 Frankfurt am Main. The present report and the products and services described herein have not been reviewed or approved by the relevant supervisory authority.

The present information is addressed exclusively to Recipients in Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Poland, Portugal, Singapore, Portugal, Spain, Sweden, Switzerland, the Republic of China (Taiwan), Thailand, the United Kingdom and Vietnam (hereinafter referred to as "Relevant Persons" or "Recipients"). The contents of the information are disclosed to the Recipients on a strictly confidential basis and, by accepting such information, the Recipients shall agree that they will not forward it to third parties, copy and/or reproduce this information without the prior written consent of NORD/LB. The present information is addressed solely to the Relevant Persons and any parties other than the Relevant Persons shall not rely on the information contained herein. In particular, neither this information nor any copy thereof shall be forwarded or transmitted to the United States of America or its territories or possessions, or distributed to any employees or affiliates of Recipients resident in these jurisdictions.

The present information does not constitute financial analysis within the meaning of Art. 36 (1) of the Delegate Regulation (EU) 2017/565, but rather represents a marketing communication for your general information **within the meaning of Art. 36 (2) of this Regulation. Against this background, NORD/LB expressly points out that this information has not been prepared in accordance with legal provisions promoting the independence of investment research and is not subject to any prohibition of trading following the dissemination of investment research.** Likewise, this information does not constitute an investment recommendation or investment strategy recommendation within the meaning of the Market Abuse Regulation (EU) No. 596/2014**.**

This report and the information contained herein have been compiled and are provided exclusively for information purposes. The present information is not intended as an investment incentive. It is provided for the Recipient's personal information, subject to the express understanding, which shall be acknowledged by the Recipient, that it does not constitute any direct or indirect offer, recommendation, solicitation to purchase, hold or sell or to subscribe for or acquire any securities or other financial instruments nor any measure by which financial instruments might be offered or sold.

All actual details, information and statements contained herein were derived from sources considered reliable by NORD/LB. For the preparation of this information, NORD/LB uses issuer-specific financial data providers, own estimates, company information and public media. However, since these sources are not verified independently, NORD/LB cannot give any assurance as to or assume responsibility for the accuracy and completeness of the information contained herein. The opinions and prognoses given herein on the basis of these sources constitute a non-binding evaluation of the employees of the Floor Research division of NORD/ LB. Any changes in the underlying premises may have a material impact on the developments described herein. Neither NORD/LB nor its governing bodies or employees can give any assurances as to or assume any responsibility or liability for the accuracy, appropriateness and completeness of this information or for any loss of return, any indirect, consequential or other damage which may be suffered by persons relying on the information or any statements or opinions set forth in the present Report (irrespective of whether such losses are incurred due to any negligence on the part of these persons or otherwise).

Past performance is not a reliable indicator of future performance. Exchange rates, price fluctuations of the financial instruments and similar factors may have a negative impact on the value and price of and return on the financial instruments referred to herein or any instruments linked thereto. Fees and commissions apply in relation to securities (purchase, sell, custody), which reduce the return on investment. An evaluation made on the basis of the historical performance of any security does not necessarily provide an indication of its future performance.
The present information neither constitutes any investment, legal, accounting or tax advice nor any assurance that an investment or strategy is suitable or appropriate in the light of the Recipient's individual circumstances, and nothing in this information constitutes a personal recommendation to the Recipient thereof. The securities or other financial instruments referred to herein may not be suitable for the Recipient's personal investment strategies and objectives, financial situation or individual needs.

Moreover, the present report in whole or in part is not a sales or other prospectus. Accordingly, the information contained herein merely constitutes an overview and does not form the basis for any potential decision to buy or sell on the part of an investor. A full description of the details relating to the financial instruments or transactions which may relate to the subject matter of this report is given in the relevant (financing) documentation. To the extent that the financial instruments described herein are NORD/LB's own issues and subject to the requirement to publish a prospectus, the conditions of issue applicable to any individual financial instrument and the relevant prospectus published with respect thereto as well NORD/LB's relevant registration form, all of which are available for download at www.nordlb.de and may be obtained free of charge from NORD/LB, Georgsplatz 1, 30159 Hanover, shall be solely binding. Furthermore, any potential investment decision should be made exclusively on the basis of such (financing) documentation. The present information cannot replace personal advice. Before making an investment decision, each Recipient should consult an independent investment adviser for individual investment advice with respect to the appropriateness of an investment in financial instruments or investment strategies subject to this information as well as for other and more recent information on certain investment opportunities.

Each of the financial instruments referred to herein may involve substantial risks, including capital, interest, index, currency and credit risks in addition to political, fair value, commodity and market risks. The financial instruments could experience a sudden and substantial deterioration in value, including a total loss of the capital invested. Each transaction should only be entered into on the basis of the relevant investor's assessment of his or her individual financial situation as well as of the suitability and risks of the investment.

NORD/LB and its affiliated companies may participate in transactions involving the financial instruments described in the present information or their underlying basis values for their own account or for the account of third parties, may issue other financial instruments with the same or similar features as those of the financial instruments presented in this information and may conduct hedging transactions to hedge positions. These measures may affect the price of the financial instruments described in the present information.

If the financial instruments presented in this information are derivatives, they may, depending on their structure, have an initial negative market value from the customer's perspective at the time the transaction is concluded. NORD/LB further reserves the right to transfer its economic risk from a derivative concluded with it to a third party on the market by means of a mirror-image counter transaction.

More detailed information on any commission payments which may be included in the selling price can be found in the "Customer Information on Securities Business" brochure, which is available to download at www.nordlb.de.

The information contained in the present report replaces all previous versions of corresponding information and refers exclusively to the time of preparation of the information. Future versions of this information will replace this version. NORD/LB is under no obligation to update and/or regularly review the data contained in such information. No guarantee can therefore be given that the information is up-to-date and continues to be correct.
By making use of this information, the Recipient shall accept the terms and conditions outlined above.

NORD/LB is a member of the protection scheme of Deutsche Sparkassen-Finanzgruppe. Further information for the Recipient is indicated in clause 28 of the General Terms and Conditions of NORD/LB or at www.dsgv.de/sicherungssystem.

Additional information for Recipients in Australia:
NORD/LB IS NOT A BANK OR DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE 1959 BANKING ACT OF AUSTRALIA. IT IS NOT SUPERVISED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY. NORD/LB does not provide personal advice with this information and does not take into account the objectives, financial situation or needs of the Recipient (other than for the purpose of combating money laundering).

Additional information for Recipients in Austria:
None of the information contained herein constitutes a solicitation or offer by NORD/LB or its affiliates to buy or sell any securities, futures, options or other financial instruments or to participate in any other strategy. Only the published prospectus pursuant to the Austrian Capital Market Act should be the basis for any investment decision of the Recipient. For regulatory reasons, products mentioned herein may not be on offer in Austria and therefore not available to investors in Austria. Therefore, NORD/LB may not be able to sell or issue these products, nor shall it accept any request to sell or issue these products to investors located in Austria or to intermediaries acting on behalf of any such investors.

Additional information for Recipients in Belgium:
Evaluations of individual financial instruments on the basis of past performance are not necessarily indicative of future results. It should be noted that the reported figures relate to past years.

Additional information for Recipients in Canada:
This report has been prepared solely for information purposes in connection with the products it describes and should not, under any circumstances, be construed as a public offer or any other offer (direct or indirect) to buy or sell securities in any province or territory of Canada. No financial market authority or similar regulatory body in Canada has made any assessment of these securities or reviewed this information and any statement to the contrary constitutes an offence. Potential selling restrictions may be included in the prospectus or other documentation relating to the relevant product.

Additional information for Recipients in Cyprus:
This information constitutes an analysis within the meaning of the section on definitions of the Cyprus Directive D1444-2007-01 (No. 426/07). Furthermore, this information is provided for information and promotional purposes only and does not constitute an individual invitation or offer to sell, buy or subscribe to any investment product.

Additional information for Recipients in the Czech Republic:
There is no guarantee that the invested amount will be recouped. Past returns are no guarantee of future results. The value of the investments may rise or fall. The information contained herein is provided on a non-binding basis only and the author does not guarantee the accuracy of the content.

Additional information for Recipients in Denmark:
This Information does not constitute a prospectus under Danish securities law and consequently is not required to be, nor has been filed with or approved by the Danish Financial Supervisory Authority, as this Information either (i) has not been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant thereto, or (ii) has been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market in reliance on one or more of the exemptions from the requirement to prepare and publish a prospectus in the Danish Securities Trading Act or any executive orders issued pursuant thereto.

Additional information for Recipients in Estonia:
It is advisable to closely examine all the terms and conditions of the services provided by NORD/LB. If necessary, Recipients of this information should consult an expert.

Additional information for Recipients in Finland:
The financial products described herein may not be offered or sold, directly or indirectly, to any resident of the Republic of Finland or in the Republic of Finland, except pursuant to applicable Finnish laws and regulations. Specifically, in the case of shares, such shares may not be offered or sold, directly or indirectly, to the public in the Republic of Finland as defined in the Finnish Securities Market Act (746/2012, as amended). The value of investments may go up or down. There is no guarantee of recouping the amount invested. Past performance is no guarantee of future results.

Additional information for Recipients in France:
NORD/LB is partially regulated by the “Autorité des Marchés Financiers” for the conduct of French business. Details concerning the extent of our regulation by the respective authorities are available from us on request. The present information does not constitute an analysis within the meaning of Article 24 (1) Directive 2006/73/EC, Article L.544-1 and R.621-30-1 of the French Monetary and Financial Code, but does represent a marketing communication and does qualify as a recommendation pursuant to Directive 2003/6/EC and Directive 2003/125/EC.

Additional information for Recipients in Greece:
The information contained herein gives the view of the author at the time of publication and may not be used by its Recipient without first having confirmed that it remains accurate and up to date at the time of its use. Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Investment funds have no guaranteed performance and past returns do not guarantee future performance.

Additional information for Recipients in Indonesia:
This report contains generic information and has not been tailored to the circumstances of any individual or specific Recipient. This information is part of NORD/LB’s marketing material.

Additional information for Recipients in the Republic of Ireland:
This information has not been prepared in accordance with Directive (EU) 2017/1129 (as amended) on prospectuses (the “Prospectus Directive”) or any measures made under the Prospectus Directive or the laws of any Member State or EEA treaty adherent state that implement the Prospectus Directive or such measures and therefore may not contain all the information required for a document prepared in accordance with the Prospectus Directive or the laws.

Additional information for Recipients in Japan:
This information is provided to you for information purposes only and does not constitute an offer or solicitation of an offer to enter into securities transactions or commodity futures transactions. Although the actual data and information contained herein has been obtained from sources which we believe to be reliable and trustworthy, we are unable to vouch for the accuracy and completeness of this actual data and information.

Additional information for Recipients in South Korea:
This information has been provided to you free of charge for information purposes only. The information contained herein is factual and does not reflect any opinion or judgement of NORD/LB. The information contained herein should not be construed as an offer, marketing, solicitation to submit an offer or investment advice with respect to the financial investment products described herein.

Additional information for Recipients in Luxembourg:
Under no circumstances shall the present information constitute an offer to purchase or issue or the solicitation to submit an offer to buy or subscribe for financial instruments and financial services in Luxembourg.

Additional information for Recipients in New Zealand:
NORD/LB is not a bank registered in New Zealand. This information is for general information only. It does not take into account the Recipient's financial situation or objectives and is not a personalised financial advisory service under the 2008 Financial Advisers Act.

Additional information for Recipients in the Netherlands:
The value of your investment may fluctuate. Past performance is no guarantee for the future.

Additional information for Recipients in Poland:
This information does not constitute a recommendation within the meaning of the Regulation of the Polish Minister of Finance Regarding Information Constituting Recommendations Concerning Financial Instruments or Issuers thereof dated 19 October 2005.

Additional information for Recipients in Portugal:
This information is intended only for institutional clients and may not be (i) used by, (ii) copied by any means or (iii) distributed to any other kind of investor, in particular not to retail clients. The present information does not constitute or form part of an offer to buy or sell any of the securities covered by the report, nor should it be understood as a request to buy or sell securities where that practice may be deemed unlawful. The information contained herein is based on information obtained from sources which we believe to be reliable, but is not guaranteed as to accuracy or completeness. Unless otherwise stated, all views contained herein relate solely to our research and analysis and are subject to change without notice.

Additional information for Recipients in Sweden:
This information does not constitute (or form part of) a prospectus, offering memorandum, any other offer or solicitation to acquire, sell, subscribe for or otherwise trade in shares, subscription rights or other securities, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. The present information has not been approved by any regulatory authority. Any offer of securities will only be made pursuant to an applicable prospectus exemption under the EC Prospectus Directive (Directive (EU) 2017/1129), and no offer of securities is being directed to any person or investor in any jurisdiction where such action is wholly or partially subject to legal restrictions or where such action would require additional prospectuses, other offer documentation, registrations or other actions.

Additional information for Recipients in Switzerland:
This information has not been approved by the Federal Banking Commission (merged into the Swiss Financial Market Supervisory Authority (FINMA) on 1 January 2009). NORD/LB will comply with the Directives of the Swiss Bankers Association on the Independence of Financial Research (as amended). The present information does not constitute an issuing prospectus pursuant to article 652a or article 1156 of the Swiss Code of Obligations. The information is published solely for the purpose of information on the products mentioned herein. The products do not qualify as units of a collective investment scheme pursuant to the Federal Act on Collective Investment Schemes (CISA) and are therefore not subject to supervision by FINMA.

Additional information for Recipients in the Republic of China (Taiwan):
This information is provided for general information only and does not take into account the individual interests or requirements, financial status and investment objectives of any specific investor. Nothing herein should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the information provided herein when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice. NORD/LB has taken all reasonable care in producing this report and trusts that the information is reliable and suitable for your situation at the date of publication or delivery. However, no guarantee of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information given. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

Information for Recipients in the United Kingdom:
NORD/LB is subject to partial regulation by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA). Details of the scope of regulation by the FCA and the PRA are available from NORD/LB on request. The present information is "financial promotion". Recipients in the United Kingdom should contact the London office of NORD/LB, Investment Banking Department, telephone: 0044 / 2079725400, in the event of any queries. An investment in financial instruments referred to herein may expose the investor to a significant risk of losing all the capital invested.

Time of going to press: Wednesday, 10 January 2024 (08:35)