Covered Bond & SSA View

NORD/LB Floor Research

13 March 2024 ♦ 10/2024

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: lull around the ECB meeting is quickly dispelled

After the previous trading week was pretty active, a degree of calm entered the primary market in connection with the ECB meeting. Only Commerzbank ventured on the market, placing a mortgage Pfandbrief (10.0y) last Wednesday and becoming the final issuer of the week in the process. The deal started in the marketing phase with a guidance of ms +44bp. The order books were well-filled, meaning that the "fresh produce" in the amount of EUR 1.0bn was issued at a final spread of ms +38bp. In the wake of the ECB meeting, where new information was rather thin on the ground (details of which can be found in our Fixed Income Special), the primary market stopped for a quick breather towards the end of the week. This was brought to a halt on Monday, when a trio of issuers, namely Caisse Française de Financement Local (CAFFIL), Santander UK and Korea Housing Finance, approached investors on the market. The South Korean issuer Korea Housing Finance raised a total of EUR 500m by issuing a social covered bond (5.0y). During the marketing process, the spread narrowed by 12 basis points to ms +48bp, while the final order book amounted to EUR 2.8bn. At present, the issuer only has social covered bonds in the EUR benchmark segment. Also on Monday, Santander UK became the second issuer from the United Kingdom to approach investors this year. At a re-offer spread of ms +40bp (guidance: ms +47bp), a volume of EUR 1.5bn was eventually issued in this five-year deal. The third member of the gang, CAFFIL, sought investors on the same day for a covered bond (12.0y) in the social format. This deal was priced at ms +45bp and generated a final order book of EUR 2.8bn. The final issuer seen over the past five trading days was Eika Boligkreditt from Norway, which yesterday (12.03.) placed a covered bond (5.0y) with a volume of EUR 500m. In the end, the deal was priced at a re-offer spread of ms +28bp (bid-to -cover ratio: 6.8x).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Eika Boligkreditt	NO	12.03.	XS2787826382	5.0y	0.50bn	ms +28bp	- / Aaa / -	-
Korea Housing Finance	KR	11.03.	XS2779847842	5.0y	0.50bn	ms +48bp	- / Aaa / AAA	X
Santander UK	GB	11.03.	XS2786381207	5.0y	1.50bn	ms +40bp	AAA / Aaa / AAA	-
CAFFIL	FR	11.03.	FR001400OOK0	12.0y	0.50bn	ms +45bp	- / Aaa / AA+	X
Commerzbank	DE	06.03.	DE000CZ45YB1	10.0y	1.00bn	ms +38bp	- / Aaa / -	-

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

Secondary market: stable performance continues

The secondary market continued its stable performance over the past few trading days. The spreads on newly placed covered bonds have, in the majority of cases, tightened further on the secondary market. The focus continues to be on new deals, primarily those with longer terms to maturity. Demand on the primary market also appears to be unbroken, with new deals featuring an average bid-to-cover ratio of 4.7x across the past five trading days. New issue premiums are still non-existent or even negative in some cases. In our opinion, the mood in line with these parameters paints a picture of a positive market environment.

Market overview
SSA/Public Issuers

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

ECB Governing Council thinks game-by-game: our analysis

As expected, the decision-makers at the European Central Bank did not make any adjustments to the three key interest rates last Thursday. Accordingly, the rate for main refinancing operations was again left unchanged at 4.50%, while the rates for the marginal lending facility (4.75%) and the deposit facility (4.00%) also remained untouched. The relevant press release again referred to the fact that, in the opinion of the Governing Council, the key rates are at a level at which the return to the medium-term inflation target required by its primary objective, namely, to maintain price stability, is achievable. This is dependent on the level being maintained long enough. With a meeting-by-meeting approach – monetary policy language for “we think game-by-game” – patience is needed. The meeting was dominated by the downward revisions of the forecasts for inflation and growth in 2024 plus the classification of market expectations. In view of this and because we question the inflation forecast of 2.3% in 2024 at least for the time being because of the considerable geopolitical uncertainties, we are sticking to our opinion that it is unlikely that there will be a cut in rates before June at the earliest as a forecast. The majority of any rate-cutting activity will be shifted to the second half of the year anyway and we expect steps to be both small and slow in nature. In specific terms, we expect steps of 25 basis points and do not believe that these will take place at each upcoming meeting in the second half either. We should be able to shed additional light on this subject following the meeting scheduled for 11 April. The first rate cut could potentially follow on 6 June. The chances of this have risen considerably.

Latest ECB projections for growth and inflation in the eurozone (in %)*

		March 2024 projections	
	2024	**2025**	**2026**
Real GDP	0.6	1.5	1.6
HICP inflation	2.3	2.0	1.9

* Changes year on year in %
Source: ECB, NORD/LB Floor Research

ICO: EUR 40bn for the green and digital transformation of Spain

The Spanish government has approved the agreement to specify the general conditions for the implementation of five facilities, which are to be financed through loans under the addendum to the economic programme amounting to EUR 40bn. Administration of this programme has now been transferred to Instituto de Crédito Oficial (ticker: ICO). The second phase of the programme has therefore been initiated, in which almost half the loans under the addendum will be awarded. As a result, it should be possible to press ahead with the reconstruction and modernisation of the Spanish economy. The loans are designed to maintain the rapid pace of investment and create a safety net to finance public and private investment under optimal conditions over the next few years. The five facilities that have been approved will be used to finance investment projects to support companies in becoming more environmentally friendly and introducing digital technology to make them more competitive.

NIB publishes figures for 2023

Nordic Investment Bank (ticker: NIB) published its official annual report for 2023. At EUR 3.4bn (2022: EUR 3.7bn), it maintained its high level of lending activity. A large number of these were invested in the energy sector to help the decarbonisation process in the promotional bank's member states. Another key area was the financing of research and development programmes, which accounted for a total of EUR 753m, or just under 23%, of the loans. The economic sectors that received funding from these programmes range from the automotive industry to agriculture. Sustainability remains a key topic for NIB. According to the annual report, the loans granted reduced carbon emissions by 152,500 tonnes. Net interest income was extremely positive thanks to high interest rates and increased by +36% to the highest figure to date in the bank's history of EUR 299m at the reporting date (2022: EUR 219m). This consisted of net interest income from lending, which came to EUR 176.5m (2022: EUR 167.1m) and net interest income from treasury activities, which in turn increased by EUR 52.3m to EUR 122.2m (2022: EUR 69.9m). Consequently, at EUR 250.7m (2022: EUR 139.3m), net profit reached a new record level, having fallen for the last three years. Another important milestone was reached with the opening of a new branch in Riga, the aim being to step up the collaboration between Nordic and Baltic countries still further. President and CEO of NIB, André Küüsvek, commented as follows on the bank's future focus, "We shall implement our strategy, manage capital efficiency and maximise the impact we achieve in the future too. We will continue offering long-term funding and will focus on supporting member states in achieving the green transformation and on measures to strengthen resilience in the region."

Kommuninvest: quarterly report on "municipal debt management"

The Swedish municipal financier Kommuninvest (ticker: KOMINS) has presented its quarterly report on the debt management of municipalities in Sweden for Q4 2023. This report is based on loans and transactions involving Kommuninvest, which were registered by municipalities and regions and their companies in the bank's debt management tool "KI Finans". The dataset for Q4 2023 consists of 8,674 loans, commercial papers and bonds with a total value of SEK 647bn (equates to circa EUR 58.5bn) plus 1,632 derivatives worth SEK 200bn. The report reveals that the average term of Swedish municipalities' outstanding loans is 2.5 years. This relatively short term means that debt-financed investments usually have to be refinanced several times. In total, 27% of the loan portfolio is also set to fall due within the next twelve months. Financing conditions have also become far more expensive in the last two years. In Q4, the average interest rate for new transactions, including derivatives was again 17 basis points up on the previous quarter and amounted to 2.48%. As a result, municipalities' refinancing costs were just under 170 basis points higher than they were two years ago. Viktor Johansson, analyst at Kommuninvest, is concerned about the future, "Although interest rates have now stabilised in general, we expect average interest rates to rise in the near future. This is due to the fact that the interest rates that municipalities, regions and their companies can obtain when refinancing or raising new funds is still higher than the current average interest rate."

SFIL posts record export financing in annual financial statements 2023

On 20 February, Société de Financement Local (SFIL; ticker: SFILFR) presented its annual financial statements for financial year 2023 in which it achieved a record level of export financing with transactions totalling EUR 5bn (2022: EUR 0.7bn). Lending to the public sector also increased slightly, coming to EUR 4.3bn (2022: EUR 4.1bn), which equated to growth of 4.9%. Loans to regional authorities increased by 15% to EUR 4bn despite an economic environment that slowed investment decisions by and large. In contrast, loans to public hospitals decreased by 48% to EUR 322m, which was mainly attributable to major projects being delayed in response to a sharp increase in construction costs, which required a reallocation of the planned expenditure. In 2023, the focus was on investment endeavours by the local public sector to support environmental and energy-related change as well as regional cohesion in France. Green and social loans accounted for 43% (2022: 37%) of the loan portfolio. A share of 22% (2022: 19%) was attributable to the category “Green loans to local authorities”. In 2023, only 7% was attributable to “Social loans to public hospitals” as against 15% in the previous year. Other new business is reported as “Non-thematic loans”. In terms of funding, SFIL issued long-term bonds totalling EUR 6.6bn with an average maturity of seven years. Although funding costs were higher than in 2022, they remained under control despite challenging market conditions, such as significant volatility, inflationary pressures and the restrictive monetary policies pursued by central banks, further details of which can be found in the company’s press release. SFIL’s liquidity structure is still robust, with LCR and NSFR ratios of 301% and 122%, respectively. It also has a CET1 ratio of 37.5%.

Focus on South American MDBs

Having only recently examined Non-European Supranationals in detail in a separate Issuer Guide, we can report on further groundbreaking developments at two of the multilateral development banks (MDBs) from the South American-Caribbean region covered as part of today’s edition of our weekly publication: on 7 March, the Board of Directors of Corporación Andina de Fomento (ticker: CAF) met in Punta Cana and approved, among other matters, the inclusion of three additional Caribbean countries in CAF. By including the Bahamas, Dominica and Grenada as “series C” members, these countries will now be able to access the technical, financial and knowledge-based services of CAF. In fact, CAF had already taken a major step around 18 months ago by establishing a regional office based in Trinidad and Tobago with the aim of targeting development aid for Caribbean countries more specifically. On 10 March, Inter-American Development Bank (ticker: IADB) also issued a press release announcing that its Management Board had approved three historical, far-reaching reform measures that are expected to further boost the MDB’s work in Latin America and the Caribbean. The central points included firstly a new institutional strategy up to 2030, which fleshes out the IADB’s strategic and operational plans for the period up to 2030. It also resolved a capital increase of USD 3.5bn to achieve the goals defined in the strategy. This will allow IADB to make just under USD 19bn per year available in resources to the region. The third measure related to its subsidiary IADB Lab, for which a new business model is being developed. It also stands to receive USD 400m in fresh funding.

Primary market

Having reported on a gradual abatement in the flood of new issues last week, the pace on the primary market was upped once more this week, meaning that we can report nine new issues in the EUR benchmark segment. As instructed, Berlin (ticker: BERGER) was the first to venture onto the market with a dual tranche consisting of a benchmark and a tap (see below) last Wednesday. The former concerned new funding of EUR 1.25bn with a 30-year maturity, which with a well filled order book of EUR 1.9bn was raised at ms +72bp (guidance: ms +73bp area). The next to follow was Bank Gospodarstwa Krajowego (Poland) (ticker: BGOSK), which also issued a dual tranche of EUR 1bn in each case. The target maturity was eight years with a spread of ms +140bp (guidance: ms +160bp area) and 15 years, which was printed at ms +185bp (guidance: ms +205bp area). "Above" EUR 4.8bn was reported as a joint figure for the order books. Following a quieter end to the week, the new week started in an action-packed manner: the first issuer on the screens was Lower Saxony (ticker: NIESA) with a bond of EUR 1bn and an eight-year maturity. With a bid-to-cover ratio of 1.1x, it was finally priced in line with guidance at ms +14bp. ESM followed from the supras segment with EUR 2bn and a term of over five years. The deal was guided at ms +8bp area. Substantial order books of over EUR 10.5bn allowed a tightening of two basis points. It was followed by three deals from the ESG segment: Auckland Council (New Zealand) (ticker: AUCKCN) raised EUR 600m for a green bond with a ten-year maturity at ms +50bp (guidance: ms +52bp area; order book: EUR 830m). Île-de-France Mobilités (ticker: IDFMOB) also issued a green bond, this time with a maturity of 25 years and a volume of EUR 1bn. It was printed at 34 basis points above the French curve, whereby FRTR 3% 06/25/49 served as a benchmark and the bid-to-cover ratio amounted to 9.5x. The Spanish region of Andalusia (ticker: ANDAL) followed this up with a bond worth EUR 750m that featured a ten-year maturity. It was priced +27bp above the Spanish curve (reference: SPGB 3.25% 04/30/34). Yesterday (Tuesday), the Asian Development Bank (ticker: ASIA) was next in line with EUR 1bn and a maturity of three years. With an order book of EUR 1.3bn, the deal was finalised in line with the guidance at ms -2bp. In the sub-benchmark segment, we can report a floater from Baden-Württemberg (ticker: BADWUR) of EUR 250m (5y). BERGER also increased its 2028 bond by EUR 500m and BNG Bank (ticker: BNG) tapped its social bond maturing in 2038 by EUR 500m. Moreover, the EU has sent out an RfP to the relevant banking group. Finally, we can also report on mandates from SABFOE (EUR 250m, WNG, 7y) and NRW (EUR 1bn, WNG, 30y).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
ASIA	SNAT	12.03.	XS2787169536	3.0y	1.00bn	ms -2bp	AAA / Aaa / AAA	-
ANDAL	ES	11.03.	ES0000090912	10.1y	0.75bn	ms +79bp	BBB- / Baa2 / A-	X
IDFMOB	FR	11.03.	FR001400OQE8	25.3y	1.00bn	ms +100bp	A+ / - / -	X
AUCKCN	Other	11.03.	XS2784364973	10.0y	0.60bn	ms +50bp	- / Aa2 / AA	X
ESM	SNAT	11.03.	EU000A1Z99T1	5.5y	2.00bn	ms +6bp	AAA / Aaa / AAA	-
NIESA	DE	11.03.	DE000A3513L3	8.0y	1.00bn	ms +14bp	AAA / - / -	-
BGOSK	Other	06.03.	XS2778274410	15.0y	1.00bn	ms +185bp	A- / A2 / -	-
BGOSK	Other	06.03.	XS2778272471	8.0y	1.00bn	ms +140bp	A- / A2 / -	-
BERGER	DE	06.03.	DE000A351PM0	30.0y	1.25bn	ms +72bp	AAA / Aa1 / -	-

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

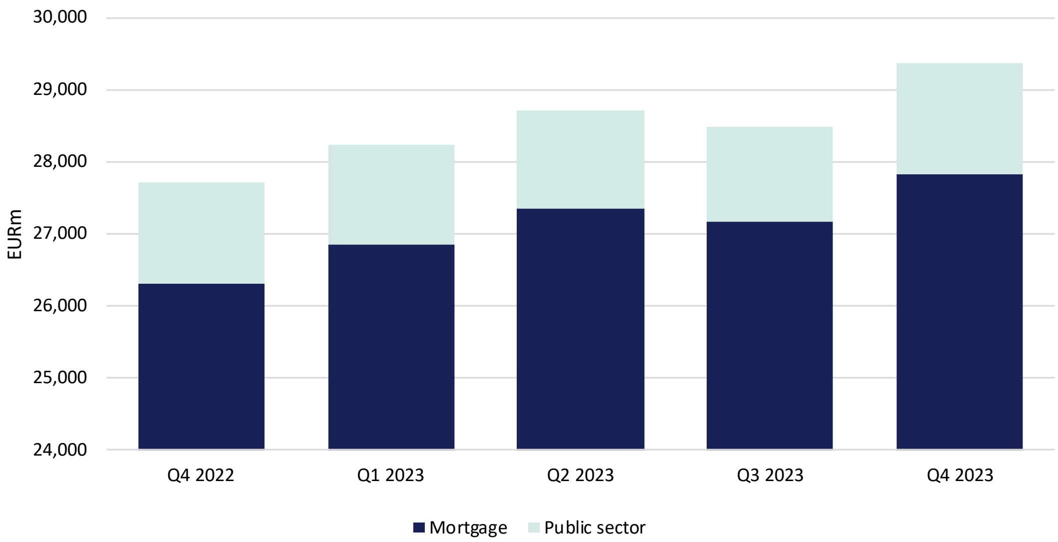
Covered Bonds
Spotlight on Pfandbrief issuers in the savings bank sector

Authors: Dr Frederik Kunze // Lukas Kühne

Savings banks as Pfandbrief issuers

Once again, German Pfandbrief banks are among the key drivers in the primary market in the current issuance year. But we are also seeing a growing number of smaller German institutions seeking out a route to the market for EUR benchmarks and EUR sub-benchmarks and successfully placing Pfandbriefe. These also include several institutions in the savings bank sector, which are likely to make their debut in one segment or the other in the future. Consequently, in this article we are taking the opportunity to look more closely at the German savings bank sector. Our focus here is on both the type of cover (residential vs. commercial) and the regional breakdown of the real estate assets. In this context, the transparency requirements of Section 28 of the German Pfandbrief Bank Act (PfandBG) represent a key input variable here too. The reporting obligations of Pfandbrief banks in the savings bank sector pursuant to Section 28 PfandBG, which were expanded further in the wake of implementation of the EU Covered Bond Directive, are presented for the majority of issuers by the Association of German Pfandbrief Banks (vdp) as part of the quarterly transparency reports. These reports include the cover pool data for 43 mortgage Pfandbrief programmes and 13 programmes for public sector Pfandbrief bonds issued by German savings banks. Below we summarise the key developments and core statements from the transparency reports as at the end of Q4 2023. As with our NORD/LB Covered Bond Special "Transparency requirements §28 PfandBG Q4/2023", going forward we also plan to report on the transparency data published by the savings banks in a quarterly NORD/LB Covered Bond Special.

Savings banks: movement in outstanding Pfandbrief volumes



Source: vdp, NORD/LB Floor Research

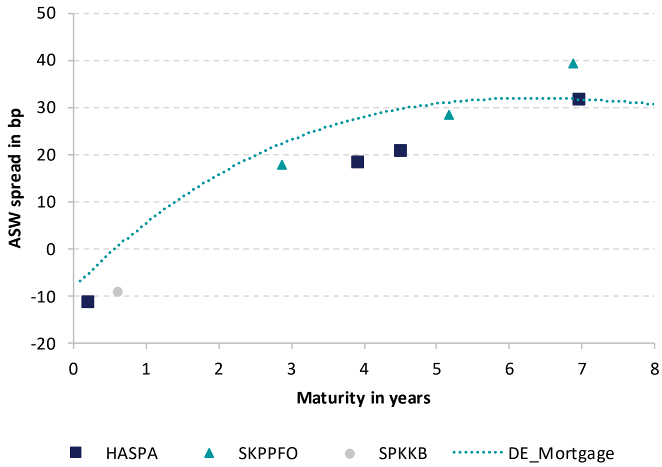
Outstanding Pfandbriefe issued by German savings banks: increase in total volume

In regional terms, the savings banks included in the data made available by the vdp are spread across virtually the whole of Germany. At EUR 29.4bn, the total volume of outstanding Pfandbriefe is up slightly on the previous quarter (reporting date 30 September 2023: EUR 28.5bn). The year-on-year increase is higher at 6.1%. Looking at the issuance volume, the picture is a varied one. Niederrheinische Sparkasse RheinLippe, for instance, had an outstanding Pfandbrief volume of EUR 25.0m as at 31 December 2023, while Hamburger Sparkasse reported a volume of EUR 6.5bn as at the same reporting date. Growth in the outstanding Pfandbrief volume is primarily attributable to the increase in the outstanding mortgage Pfandbrief volume of EUR 659m to EUR 27.8bn. The volume of public sector Pfandbriefe rose for the first time in over a year (EUR +240m or +18.2% Q/Q) to stand at EUR 1.6bn at the end of 2023. At 94.7%, mortgage Pfandbriefe account for the lion's share of Pfandbrief bonds issued by the savings banks.

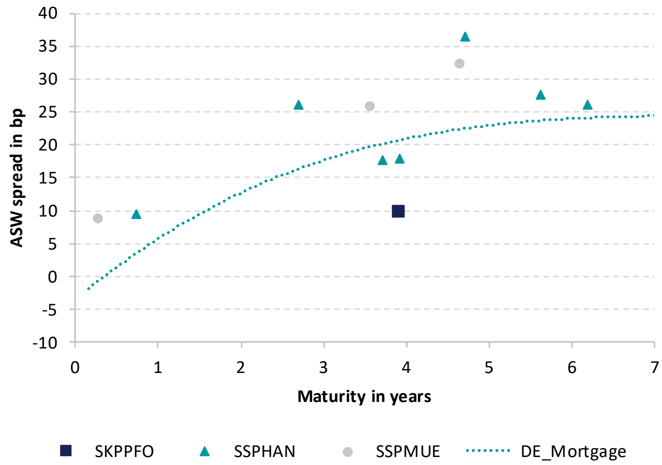
EUR BMK and EUR SBMK: Savings banks active primary market issuers

Currently there are three savings banks with nine issues represented in the EUR benchmark segment: Hamburger Sparkasse, Sparkasse Pforzheim Calw and Sparkasse KölnBonn. The outstanding volume totals EUR 4.5bn and is spread across eight mortgage Pfandbriefe and one publicly placed Pfandbrief. This year, two of the three established issuers from the savings bank sector have already been active in the EUR benchmark market, namely Hamburger Sparkasse and Sparkasse Pforzheim Calw, both placing mortgage Pfandbriefe with a volume of EUR 500m. Sparkasse Hannover and Stadtsparkasse München have joined the list of savings banks active in the primary market. In addition to private placements, these savings banks are also active in the EUR sub-benchmark segment. While Sparkasse Hannover has issued both public sector and mortgage Pfandbriefe in the EUR sub-benchmark segment, Stadtsparkasse München is currently limiting itself to placing mortgage Pfandbriefe in this market segment. The outstanding Pfandbrief volume in the EUR sub-benchmark segment for all savings banks totals EUR 2.8bn.

German savings banks: mortgage spreads EUR (BMK)



German savings banks: mortgage spreads EUR (SBMK)

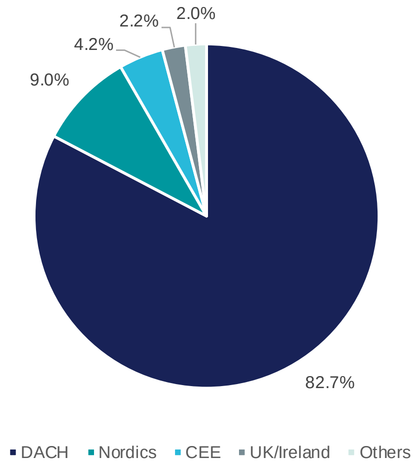


Source: vdp, NORD/LB Floor Research

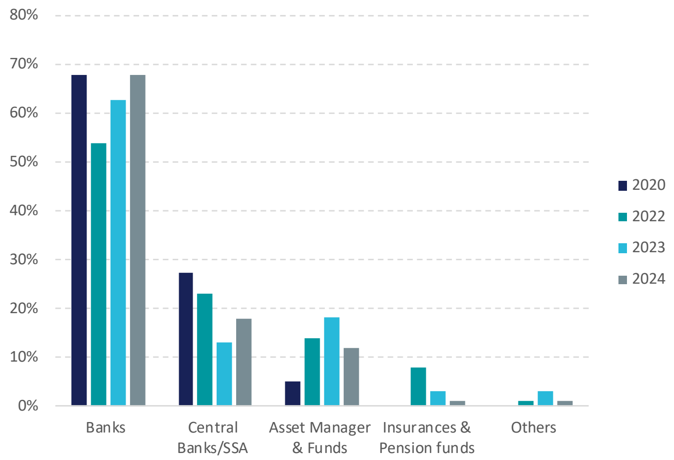
DACH region dominates investor breakdown

The investor base of savings banks with at least one outstanding EUR benchmark is dominated by investors from the German-speaking DACH region of Germany, Austria and Switzerland. On average, over almost the last four years, the proportion of investors from the DACH region has been around 83%, followed by the regions Nordics (9.0%) and CEE (4.2%). Consequently, we believe there is a clear 'home bias' for Pfandbriefe issued by the savings banks as well. In terms of volume, banks and bank treasuries have been the main Pfandbrief investors for savings banks in recent years. As the European Central Bank's purchasing programmes are ending, it is hardly surprising that the order volumes from central banks are declining. The decrease here was offset by asset managers and funds, which now account for an increased share of almost 12% of the investor base for the issued Pfandbriefe in 2024. According to our data, insurance companies and pension funds play only a minor role.

German savings banks: investor breakdown by country



German savings banks: investor breakdown by type



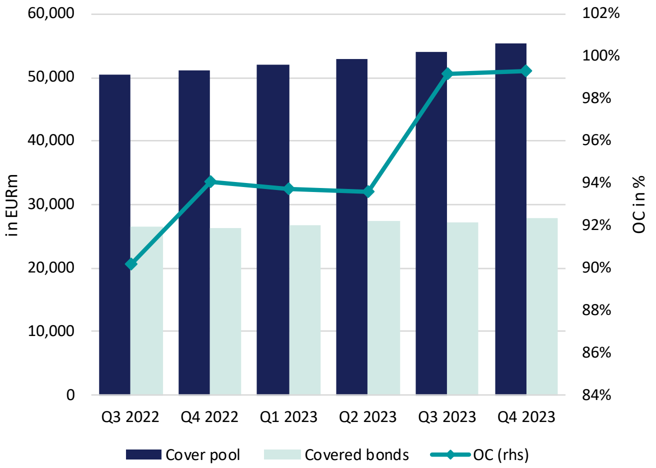
Source: vdp, NORD/LB Floor Research

Sustainable Pfandbriefe in the savings bank sector

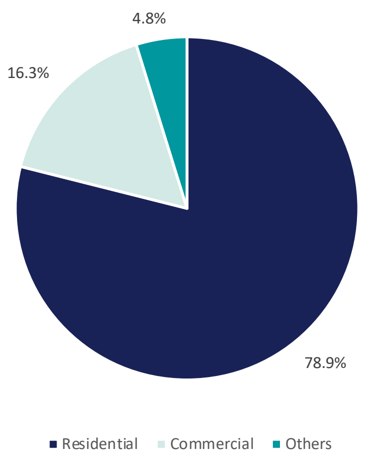
Pfandbrief issuers too are increasingly turning their attention to the ESG covered bond segment. According to the vdp, 13 German banks (mainly major banks) are now active in this sub-market. On 23 February 2024, the vdp reported an outstanding volume of sustainable Pfandbriefe of around EUR 26.4bn. At EUR 22.1bn, the majority of this issuance volume is attributable to green covered bonds, followed by social covered bonds at EUR 4.3bn. Among the green Pfandbrief issuers are two institutions in the savings bank sector: Sparkasse KölnBonn and Sparkasse Hannover, which have issued exclusively green Pfandbriefe with a volume of EUR 20m and EUR 75m respectively. With its Green Bond Framework, Sparkasse Hannover established a basis for issuing green bonds in 2021. According to the Framework, the proceeds raised through the issuance of green Pfandbriefe are to be used exclusively for the financing of green buildings. In specific terms, this includes new builds and the renovation of green commercial and residential buildings that meet all the requirements of the EU taxonomy and hold a sustainability certificate. Sparkasse KölnBonn established a similar framework in 2021 and successfully issued its first green Pfandbrief with a volume of EUR 6m the following year.

Mortgage Pfandbriefe: overcollateralisation ratio at savings banks rises to 35.4%
As mentioned earlier, the volume of mortgage Pfandbriefe totals EUR 27.8bn. This is backed by a cover pool volume of EUR 55.4bn, producing a nominal overcollateralisation of EUR 27.6bn or 99.3%. On average, we believe there is as yet no shortage with regard to cover assets that could impair issuance potential over the coming quarters. In fact, issuers increased the overall level of overcollateralisation even though the outstanding volume went up. In a year-on-year review, Sparkasse Hannover stands out at issuer level with growth in its outstanding volume of EUR 947m. Taunus Sparkasse and Stadtsparkasse München also recorded big increases of EUR 275m and EUR 250m respectively. The most significant decreases in outstanding volume last year were posted by Sparkasse Pforzheim Calw (EUR -520m) and Kreissparkasse Köln (EUR -295m).

German savings banks: trend in mortgage Pfandbriefe



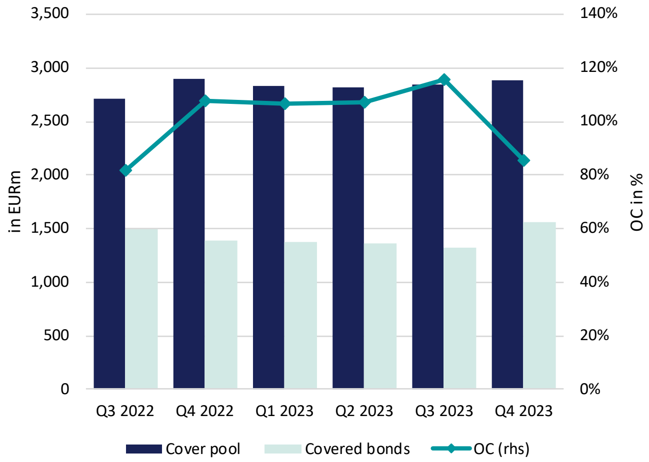
German savings banks: CRE share of mortgage Pfandbriefe



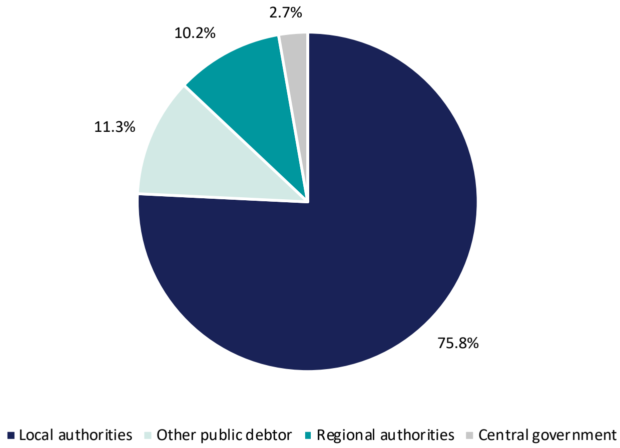
Source: vdp, NORD/LB Floor Research

Public sector Pfandbriefe: first rise in volume for over a year
The public sector Pfandbrief segment recorded a significant rise in Q4 2023 of EUR 240m, halting the longstanding downward trend in terms of outstanding volume. Overall, the outstanding volume for public sector Pfandbriefe as at 31 December 2023 stood at around EUR 1.6bn. In contrast, the amount of cover assets remained virtually unchanged on the previous quarter at EUR 2.9bn (previous quarter: EUR 2.8bn). This puts the notional over-collateralisation ratio at 85.4%, which is a fall of over 30 percentage points (previous quar-ter: 115.7%). Despite the lower overcollateralisation ratio, we believe there is still enough leeway for future public sector Pfandbrief issues from the savings bank sector. Although the break in the downward trend in outstanding volume in the last quarter of 2023 is a good first step, talk of a general trend reversal would be premature. The increase in the outstanding volume was largely driven by Sparkasse Hannover, which successfully placed its first public sector Pfandbrief in the market (issuance volume: EUR 250m) in November 2023.

German savings banks: trend in public sector Pfandbriefe



German savings banks: regional breakdown of public sector Pfandbriefe

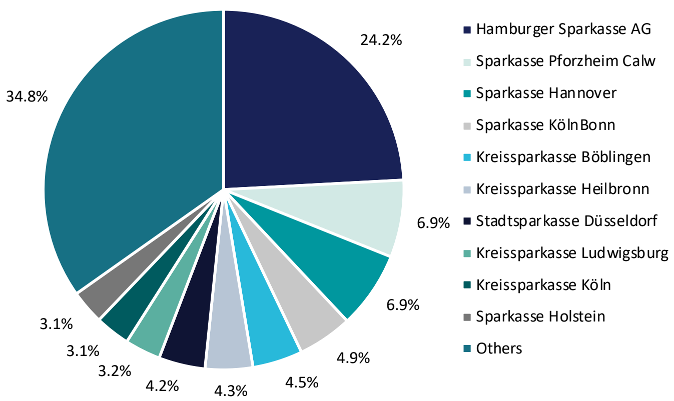


Source: vdp, NORD/LB Floor Research

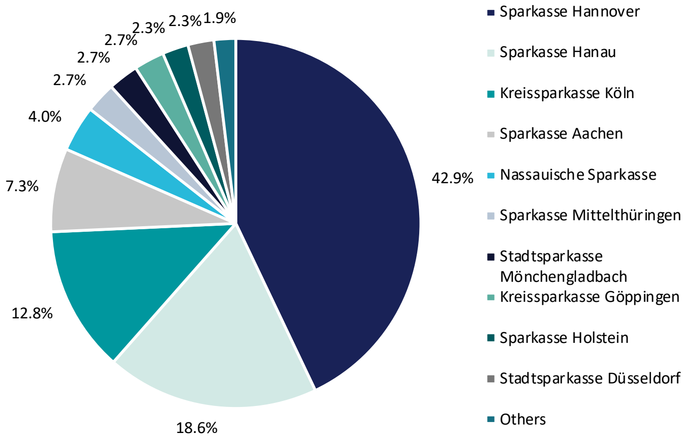
The top 10 at a glance

With regard to the top 10 mortgage Pfandbrief issuers by outstanding volume, Hamburger Sparkasse ranks first out of the German savings bank issuers with a share of 24.2%. Next with a share of 6.9% each come Sparkasse Pforzheim Calw and Sparkasse Hannover. The ten biggest issuers account for 65.2% of the outstanding volume in total. This relatively low proportion is due to the large number of 'smaller' mortgage Pfandbrief issuers in the savings bank sector. The number of savings banks issuing public sector Pfandbriefe is much smaller and here the top ten issuers account for 98.1%. With a total of 13 issuers, only 1.9% of the public sector Pfandbrief volume is attributable to savings banks outside the top ten. Sparkasse Hannover accounts for around 43% of the total for the savings bank sector with a volume of EUR 566m, followed by Sparkasse Hanau (18.6%) and Kreissparkasse Köln (12.8%).

German savings banks – market share: mortgage Pfandbriefe



German savings banks – market share: public sector Pfandbriefe



Source: vdp, NORD/LB Floor Research

Savings banks as debut issuers in the EUR sub-benchmark segment

As with Sparkasse Hannover, which went to investors with its first public sector Pfandbrief in November last year, other savings banks are increasingly using the established market for EUR sub-benchmarks in Germany for funding purposes. Sparkasse Dortmund too is preparing to make its debut in the EUR sub-benchmark market. It announced last Monday that it had mandated a consortium to issue its first mortgage covered bond in sub-benchmark format. The mortgage Pfandbrief is set to have a maturity of 7 years and is aiming for a volume of EUR 250m. As at the reporting date of 31 December 2023, Sparkasse Dortmund had an outstanding Pfandbrief volume of EUR 330m. The cover pool as at the same date amounted to EUR 825.7m, producing a nominal overcollateralisation ratio of 150.2%. Consequently, the intended issue would be possible without increasing the cover pool volume. According to Sparkasse Dortmund, the rating agency Fitch is expected to award the covered bond programme a rating of AAA. This development among savings banks issuers is a hopeful sign for further inaugural deals from the savings bank sector.

Conclusion and outlook

We view the savings bank sector in general as a covered bond sub-market that has continually grown in recent years. The mandate announced last Monday by Sparkasse Dortmund also gives rise to hopes of additional debuts in the EUR sub-benchmark or even EUR benchmark segment. In addition, we see catch-up potential in the savings banks sector with regard to the issue of sustainable Pfandbriefe in particular. Nearly all covered bond programmes of Pfandbrief issuers in the savings bank sector that are active in the primary market have a top rating from one of the rating agencies Moody's, Fitch or Standard & Poor's. Based on the ratings, a risk weight of 10% under the CRR applies to the covered bonds from the savings bank issuers in these sub-markets. Moreover, it is our understanding that EUR sub-benchmarks are eligible as Level 2A assets in the context of LCR management and EUR benchmarks as Level 1 assets. Pfandbriefe issued by savings banks are also suitable as collateral in transactions with the ECB. While this article has looked at the savings banks on a largely general level, it is also important to take a closer look at individual pools and programmes. In the coming weeks, we will therefore be publishing a NORD/LB Covered Bond Special. This will provide a more detailed assessment of all savings bank issuers included in the vdp coverage and their respective cover pools, and we look forward to making this data available in aggregated form in the future.

SSA/Public Issuers
NGEU: Green Bond Dashboard

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

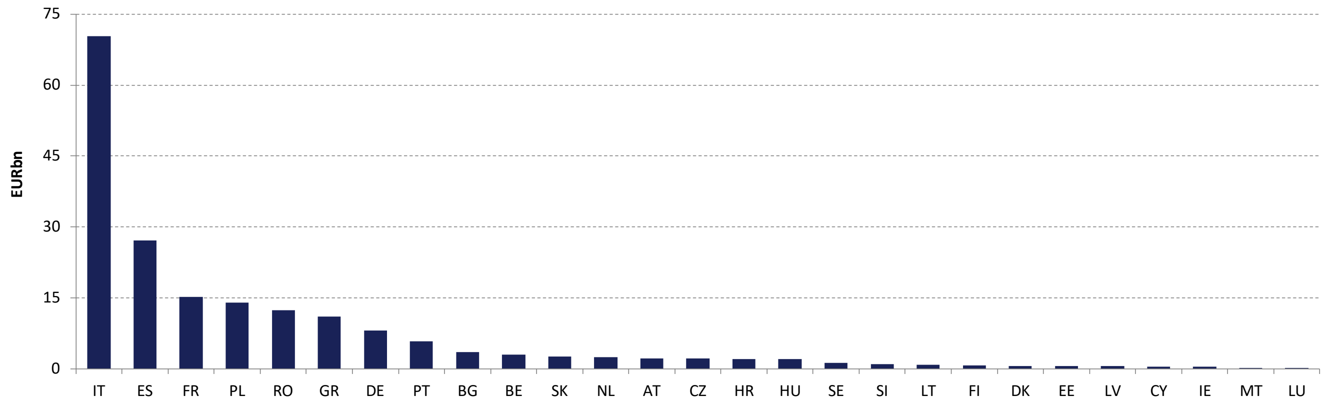
Introduction

In 2022, the European Union published the NextGenerationEU Green Bond Dashboard, which aims to provide a transparent insight into the sustainable investments made to date and planned under the Recovery and Resilience Facility (RRF). Up to this point, green bonds totalling just under EUR 48.9bn have been issued within the framework of the NextGenerationEU (NGEU) programme. Of the proceeds raised to date, a total of almost EUR 34.1bn has been put towards investments in the EU Member States, according to data from the European Commission. These figures might well look slightly disappointing, and not only at first glance: in line with the expenses reported under the approved recovery and resilience plans of Member States up to now, a total of EUR 190.6bn is eligible for the use of green bond proceeds by the end of 2026. In this context, Italy accounts for by far the largest share of these funds, at EUR 70.3bn, followed by Spain with less than half this amount (EUR 27.2bn).

NGEU review

Let's start with a brief review: the NGEU programme was adopted as a stimulus package during the COVID-19 pandemic in 2020 and features a volume slightly in excess of EUR 800bn (as per current prices). The aim of the package is to emerge stronger from the pandemic, to transform national economies and to create jobs. The RRF (total volume: EUR 723.8bn) mentioned at the start of this article forms the core of the NGEU programme. It is responsible for the provision of loans (up to EUR 385.8bn, repayable by the respective Member States) and grants (up to EUR 338bn). New sources of revenue, divided into three pillars, are also used to support the EU budget: Emissions trading, Carbon Border Adjustment Mechanism (CBAM) and residual profits of multinational companies. The remaining volume of EUR 83.1bn is to be used for key EU projects.

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



Source: EU, NORD/LB Floor Research

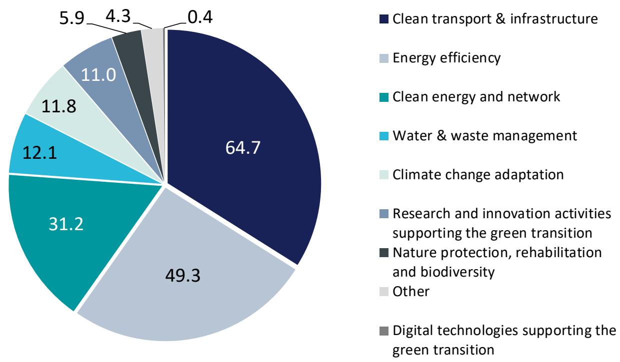
Recovery and Resilience Facility

The Recovery and Resilience Facility (RRF) is a temporary funding instrument launched in February 2021, which allows the European Commission to provide its Member States with financial resources that contribute to financing reforms and investments that are in line with the EU's priorities. In so doing, the RRF pursues a dual aim: first, it helps the EU to achieve its target of climate neutrality by 2050 and, secondly, it sets Europe on the path to digital transformation and accelerates this process. To receive RRF funding, Member States must present their plans for investments and reforms that will both promote economic recovery and boost social resilience. States can receive funding up to a previously defined amount. Last year, the number of approved recovery and resilience plans (RRPs) increased to 27, with all EU Member States now included in this process. The chart above now reflects this situation, with Hungary having finally anchored green bond-eligible investments in a modified RRP at the end of 2023. This was still missing 12 months ago, which is why the country was not included in our review of last year's Green Bond Dashboard. The RRPs are subject to certain targets: for example, 20% of the planned expenses must contribute to digital transformation, while 37% must help to protect the climate. On a cumulative basis, the approved RRPs go even further: both the proportion of expenses for digital transformation and climate protection measures exceed the targets, at 26% and 40% respectively. The facility is based on six pillars in total:

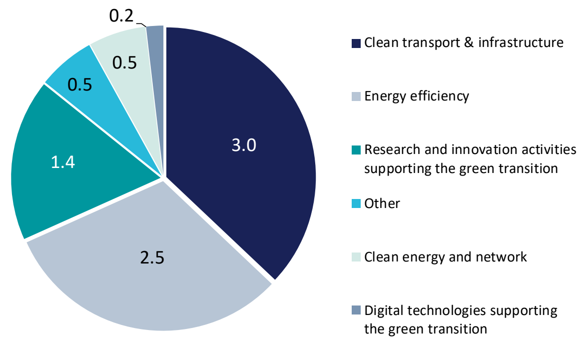
- Green transition
- Digital transformation
- Smart, sustainable and inclusive growth
- Social and territorial cohesion
- Health, economic, social and institutional resilience
- Policies for the next generation

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

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



Germany: green bond-eligible investments according to the RRP (EURbn)



Source: EU, NORD/LB Floor Research

The German recovery and resilience plan

The RRP submitted by Germany, which was approved on 13 July 2021, before being twice amended on 14 February 2023 and 08 December 2023, envisages grants of EUR 28bn. Of this figure, at least 47% is earmarked for climate protection and 48% for the digital transformation. Germany has therefore applied for less funding than either Romania or Greece, for instance, and ranks only seventh in terms of the largest amounts. This is an aspect of which we were critical since 2021. As part of a study carried out on behalf of the German Federal Ministry of Finance (BFM), the German Institute for Economic Research (more commonly referred to as DIW Berlin) projected that, all things being equal, the real GDP of Germany would stand 1.9% higher in 2040 due to the measures outlined in its RRP, in addition to potentially creating up to 230,000 new jobs on the labour market. However, at the time that the study was carried out, there was no war in Ukraine, interest rate hikes or inflation, for example. It should also be pointed out that Germany not only benefits from its own RRP: owing to the economic upturns expected to take place in other Member States – due to NGEU – it is likely that exports and transfer effects too, will rise. This would likewise be associated with increased economic growth. Looking at the plan in greater detail, a total of EUR 3.3bn is set aside to decarbonise the economy (industry in particular) as part of the country's green transformation. In this context, there is a particular emphasis on developing an effective hydrogen economy along the entire value chain. A total of EUR 7bn is earmarked for a more sustainable transport sector, with a focus on the electrification of cars and public transport. Moreover, EUR 2.5bn in total is to be spent on a large-scale renovation programme to raise the energy efficiency of residential buildings. As far as digital transformation is concerned, EUR 1.5bn is to be put towards a Europe-wide initiative in the area of microelectronics and communication technologies. In addition, a sum of EUR 750m is to be invested in a separate initiative for cloud infrastructures and services throughout Europe. The plan also provides for EUR 3bn to digitalise bureaucratic processes in line with the Online Access Act. At this point, it makes sense to take a look at the funds eligible for green bonds: of the EUR 28bn in total, EUR 8.1bn can be financed via green bonds. The category of clean transport and infrastructure accounts for the largest share here, at EUR 3.0bn (37%), while a total of EUR 2.5bn (31%) is attributable to energy efficiency, followed by research and innovation activities to support the green transformation (EUR 1.4bn: 18%). In the categories clean energy and "other", EUR 0.5bn (6%) can be financed by way of green bond issuances in each case. However, without wanting to end this section on a downbeat note, we should point out that, as was previously the case, Germany has still not received any proceeds from the green bonds issued to date.

Green bond proceeds: largest investments in green transport and infrastructure

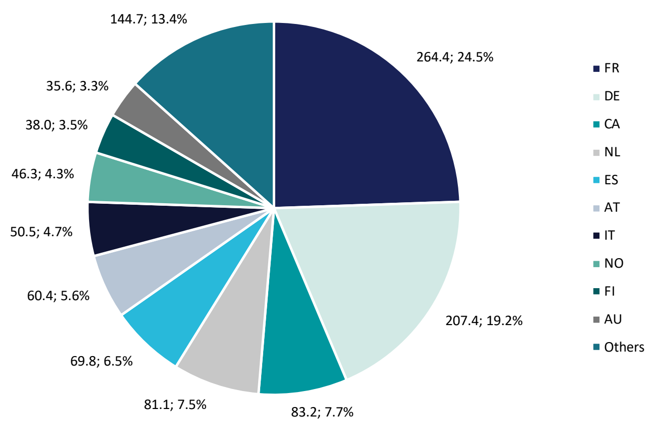
If we look at all of the investments eligible for green bonds, the category of green transport and infrastructure is far ahead of the rest: a total of EUR 64.7bn of the eligible green bond investments in the amount of EUR 190.6bn is attributable to this category. The next largest category is that of energy efficiency at EUR 49.3bn, while investments totalling EUR 31.2bn are envisaged for clean energy, followed by EUR 12.1bn for water and wastewater management. The remaining volume of EUR 33.3bn is attributable to the other categories, which are of course no less important. Overall, a clear trend is apparent here. Europe is keen to encourage the adoption of greener and more sustainable practices, especially with regard to the mobility sector. Unsurprisingly, one Member State is taking the lead here: of Italy's total investment eligible for green bonds (EUR 70.3bn), just over 40% (EUR 28.4bn) is allocated to green transport and infrastructure.

Conclusion and outlook

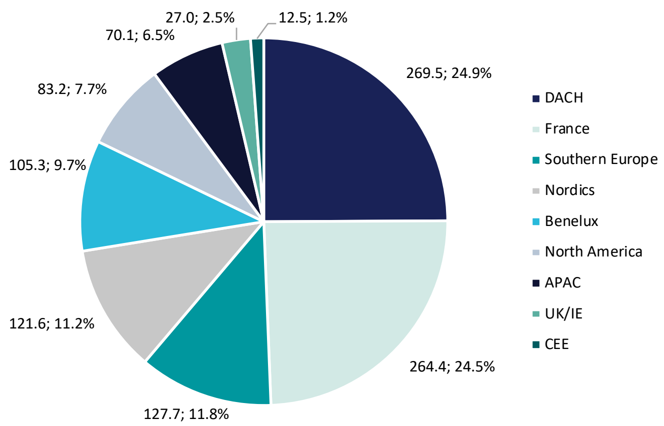
The fact that the NGEU programme amounting to over EUR 800bn will go down in the history books is indisputable. To put this volume into perspective more clearly, it is several times greater than the scope of the Marshall Plan of 1948. While this might be an imperfect comparison, the focus of the NGEU programme is on rebuilding the economy – as was the case in post-war Europe back then. Although, thankfully, no cities of Member States have been left in ruins, the COVID-19 pandemic and the energy (price) crisis have of course left their mark on national economies in other respects. Logically, the EU is combining that which is necessary (economic recovery) with that which will be beneficial (climate protection and digital transformation). Achieving the goals enshrined in the Paris Climate Agreement will be a challenge that requires cross-border efforts. The fact that the EU can direct investments to green and sustainable initiatives through the NGEU programme is all the more worthwhile. This aspect is also being adopted by Member States, which are even going beyond the prescribed investment targets in the areas of climate protection and digital transformation. However, in an ideal world, we would have liked Germany's RRP to be larger in volume: for example, our German readers will probably be aware of plenty of situations and places where the digital or transport infrastructure needs to be expanded or upgraded. We doubt whether the planned expenditure will achieve an adequate and, above all, modernised infrastructure. Nevertheless, we would like to commend the EU's transparency with regard to the use of proceeds, in particular. To this end, the NGEU Green Bonds Allocation and Impact Report was published for the first time in December 2023, with the aim of offering an overview of up-to-date information with regard to the allocation of green bond proceeds as at the reporting date of 01 August 2023, in addition to presenting the impacts of the investments financed via the issuance of green bonds. As a major bond issuer (both conventional and green), not to mention being the foremost issuer in terms of overall volume in our coverage, this is the correct approach for the EU to ensure that it remains attractive to investors on the capital market in future.

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



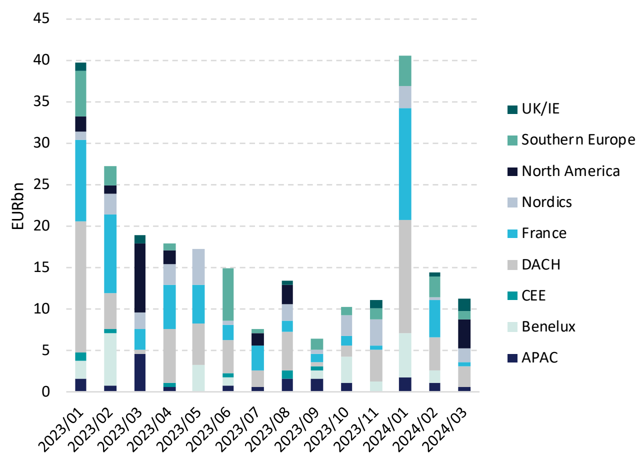
EUR benchmark volume by region (in EURbn)



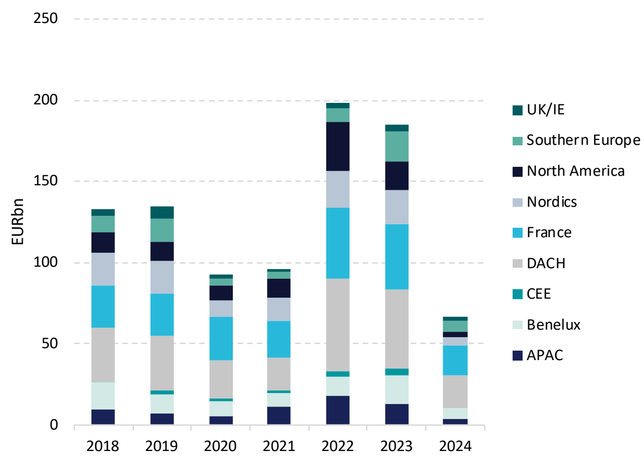
Top-10 jurisdictions

Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	264.4	256	25	0.97	9.3	4.9	1.38
2	DE	207.4	296	39	0.65	7.9	4.1	1.36
3	CA	83.2	61	0	1.34	5.6	2.8	1.24
4	NL	81.1	81	3	0.94	10.5	6.1	1.25
5	ES	69.8	55	5	1.15	11.1	3.3	2.08
6	AT	60.4	101	5	0.59	8.1	4.5	1.49
7	IT	50.5	63	4	0.77	8.6	3.9	1.77
8	NO	46.3	56	12	0.83	7.3	3.7	0.91
9	FI	38.0	42	4	0.89	6.9	3.6	1.59
10	AU	35.6	34	0	1.05	7.2	3.2	1.60

EUR benchmark issue volume by month

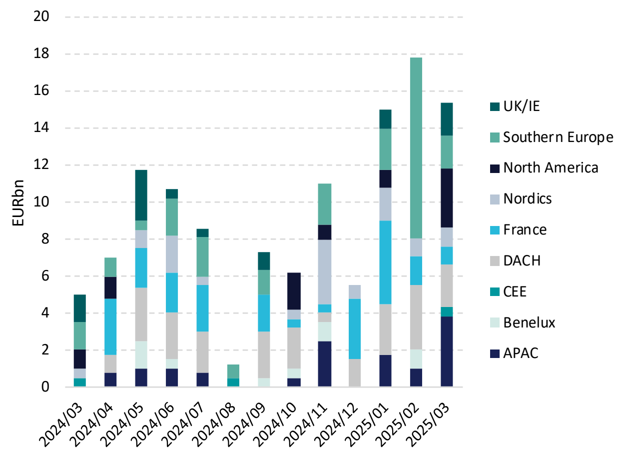


EUR benchmark issue volume by year

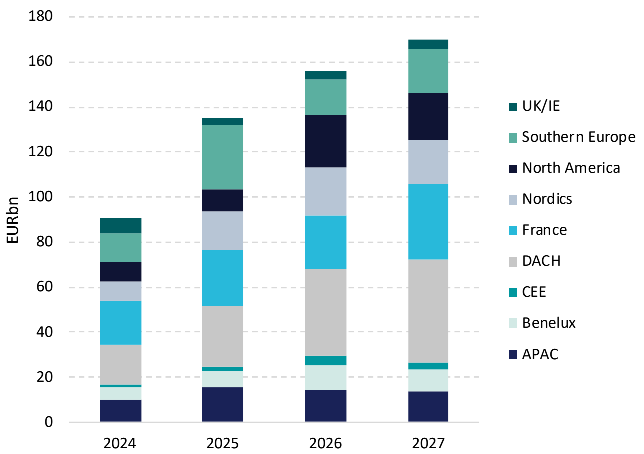


Source: market data, Bloomberg, NORD/LB Floor Research

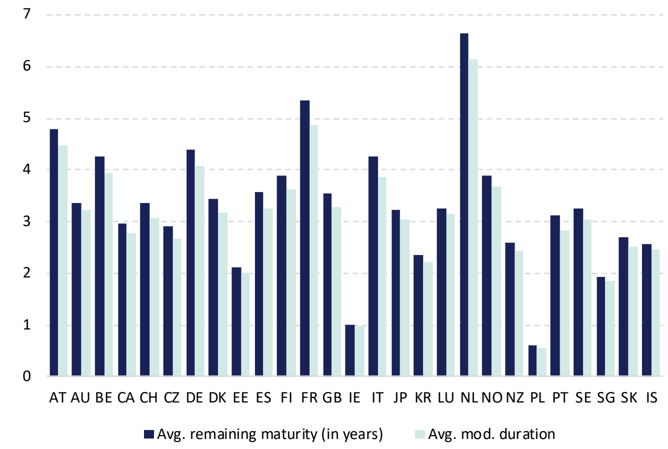
EUR benchmark maturities by month



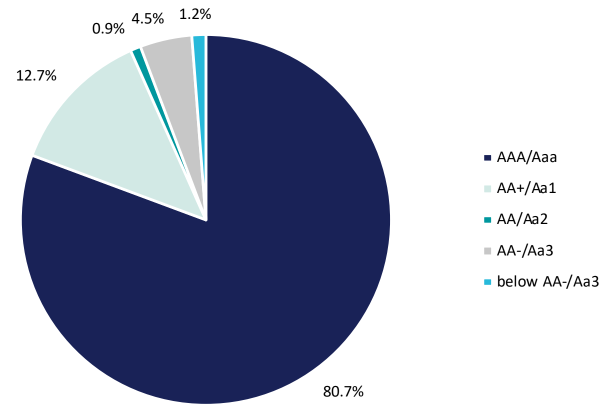
EUR benchmark maturities by year



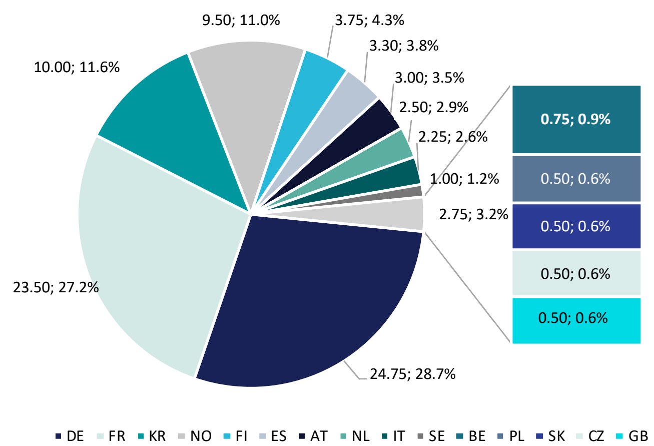
Modified duration and time to maturity by country



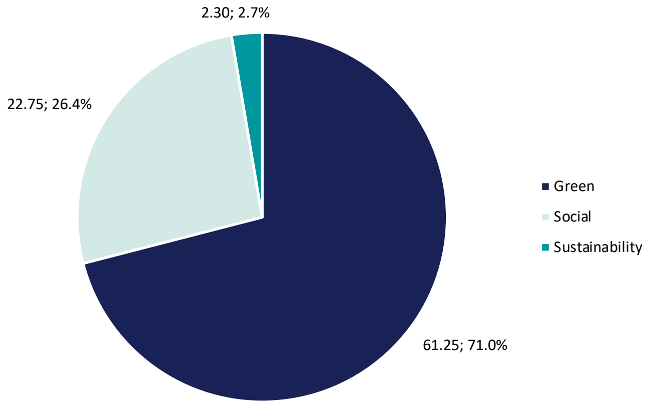
Rating distribution (volume weighted)



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

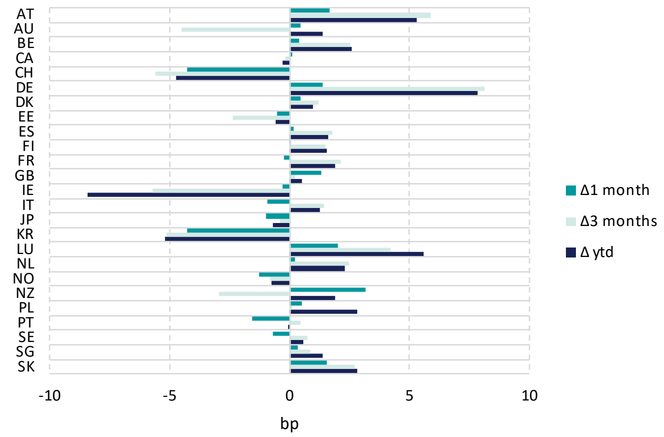


EUR benchmark volume (ESG) by type (in EURbn)

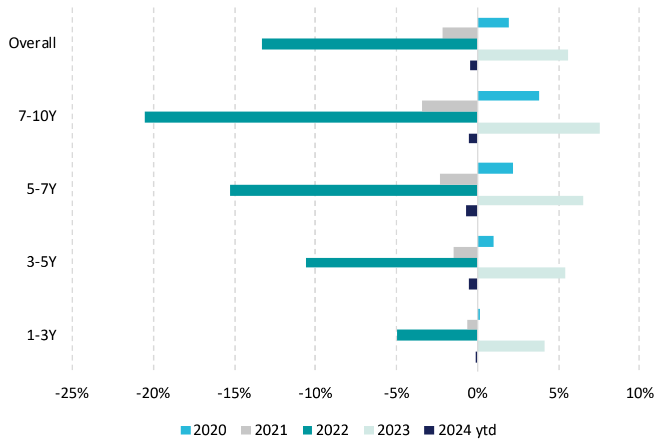


Source: market data, Bloomberg, NORD/LB Floor Research

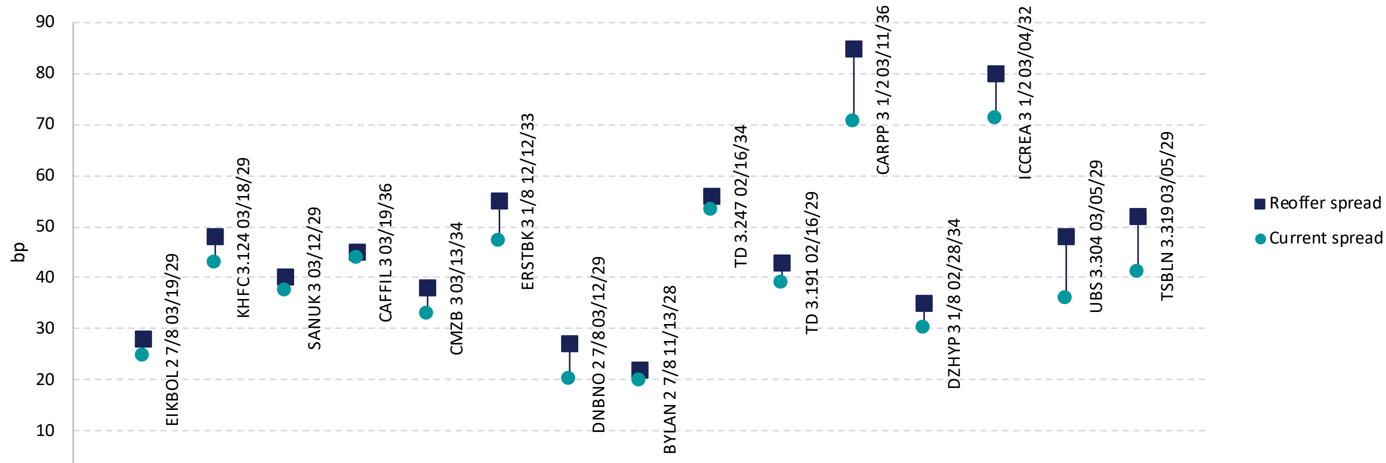
Spread development by country



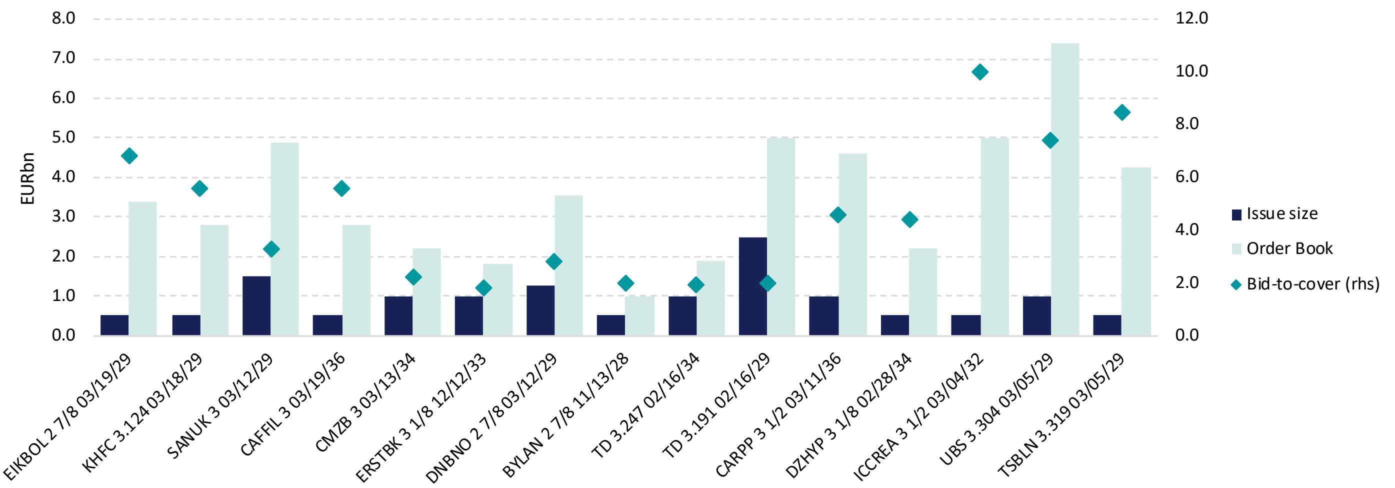
Covered bond performance (Total return)



Spread development (last 15 issues)



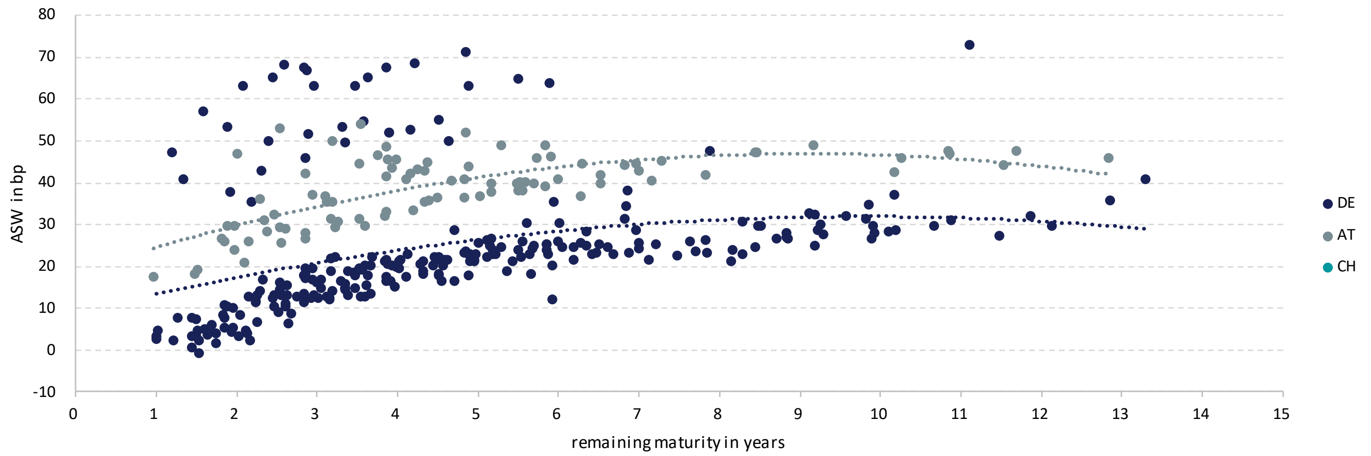
Order books (last 15 issues)



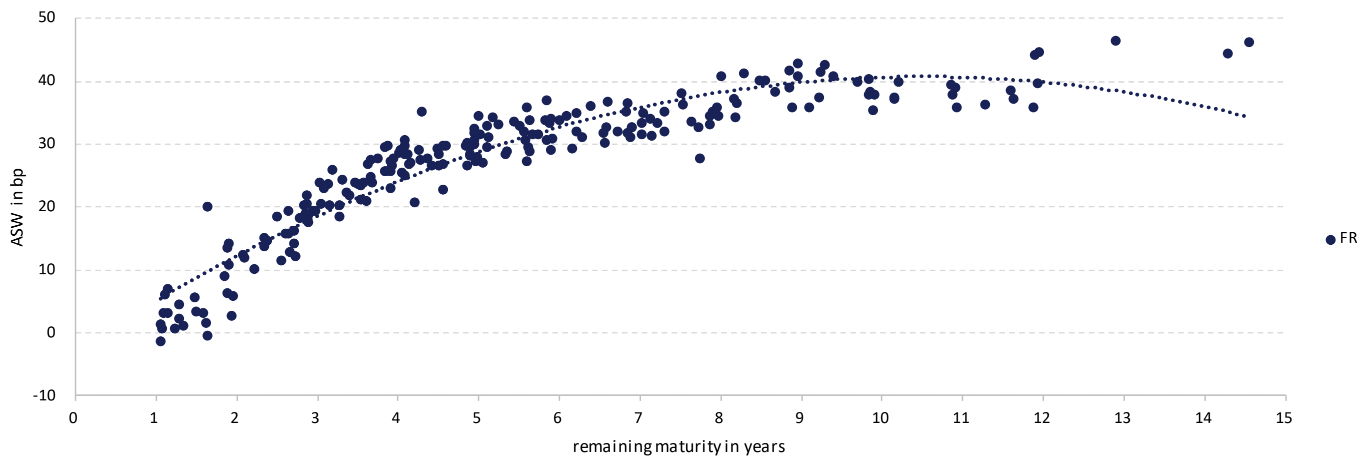
Source: market data, Bloomberg, NORD/LB Floor Research

Spread overview[1]

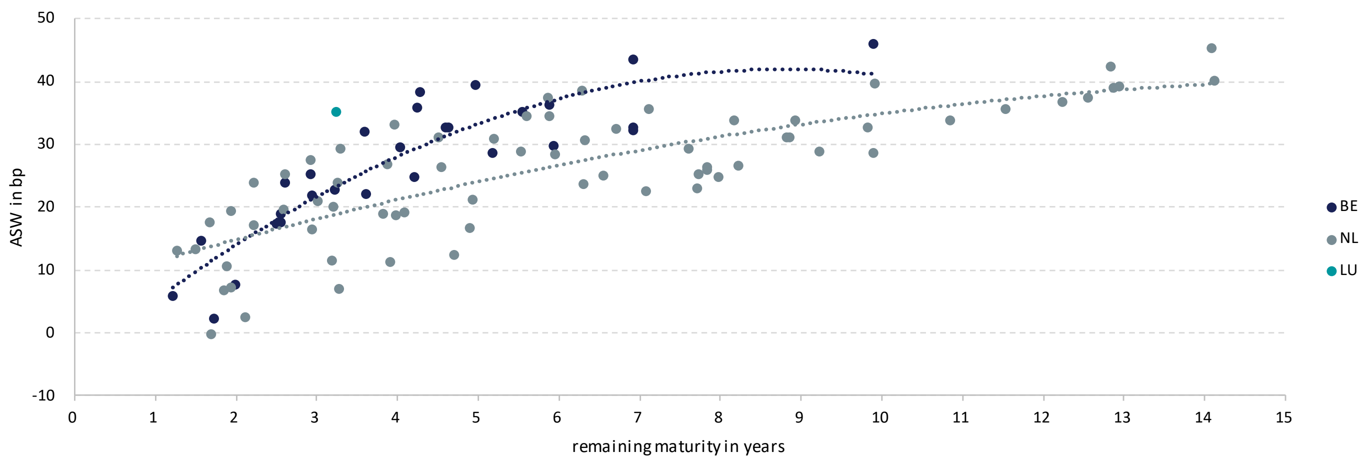
DACH



France

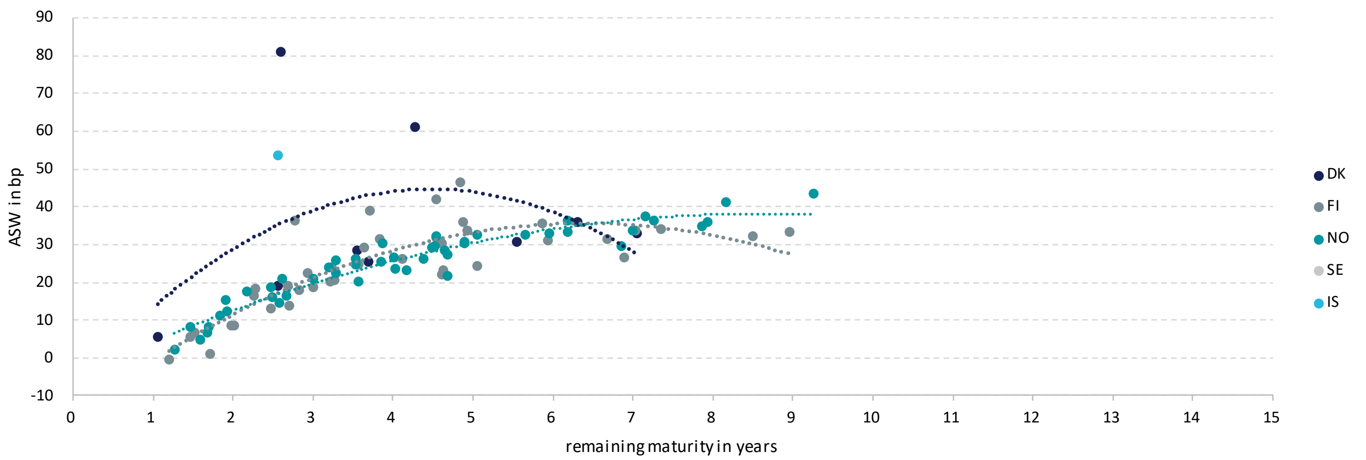


Benelux

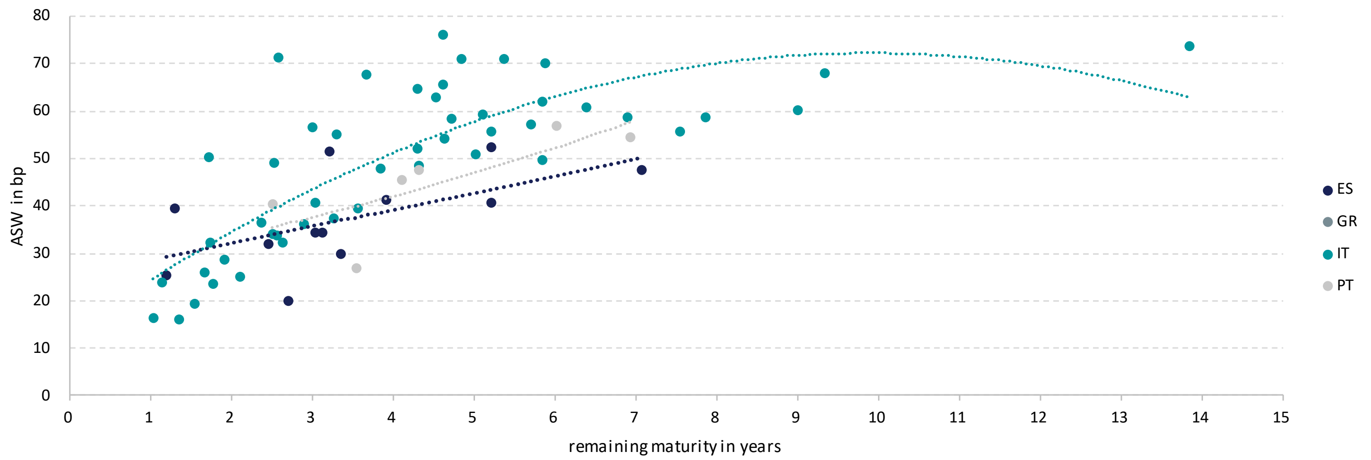


Source: market data, Bloomberg, NORD/LB Floor Research [1]Time to maturity 1 ≤ y ≤ 15

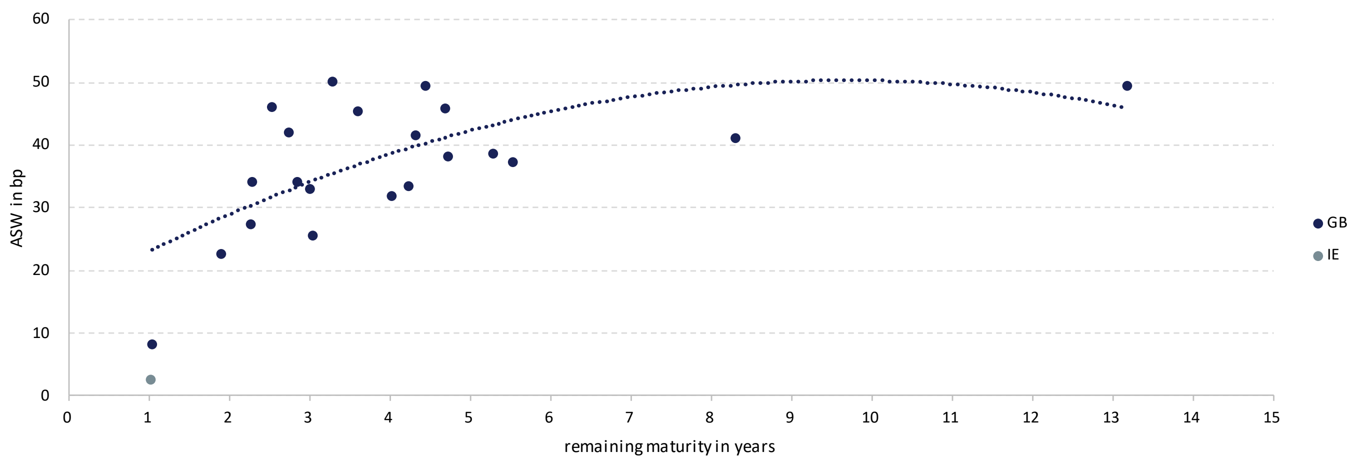
Nordics



Southern Europe

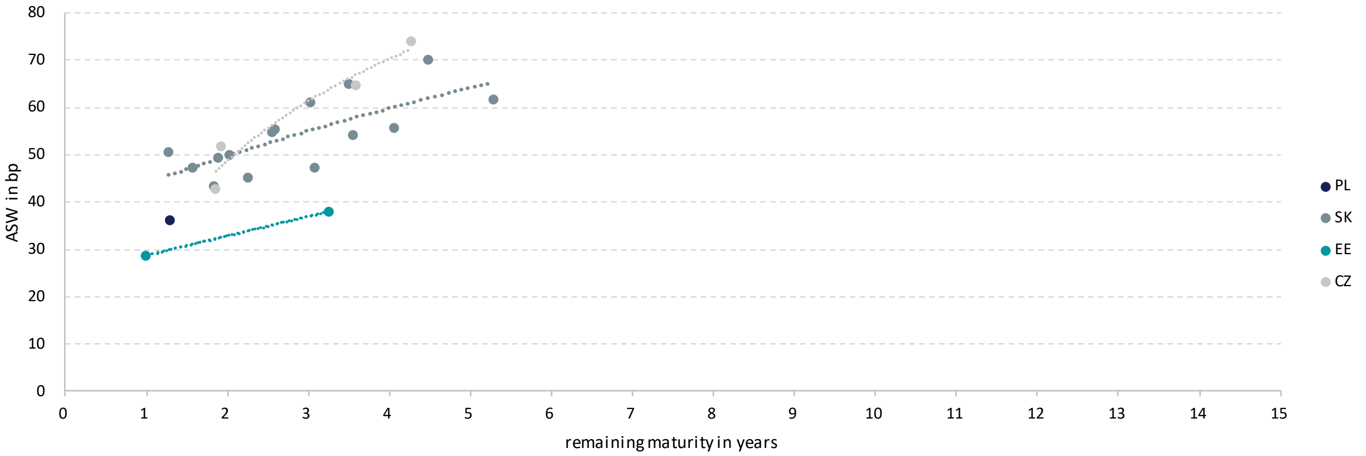


UK/IE

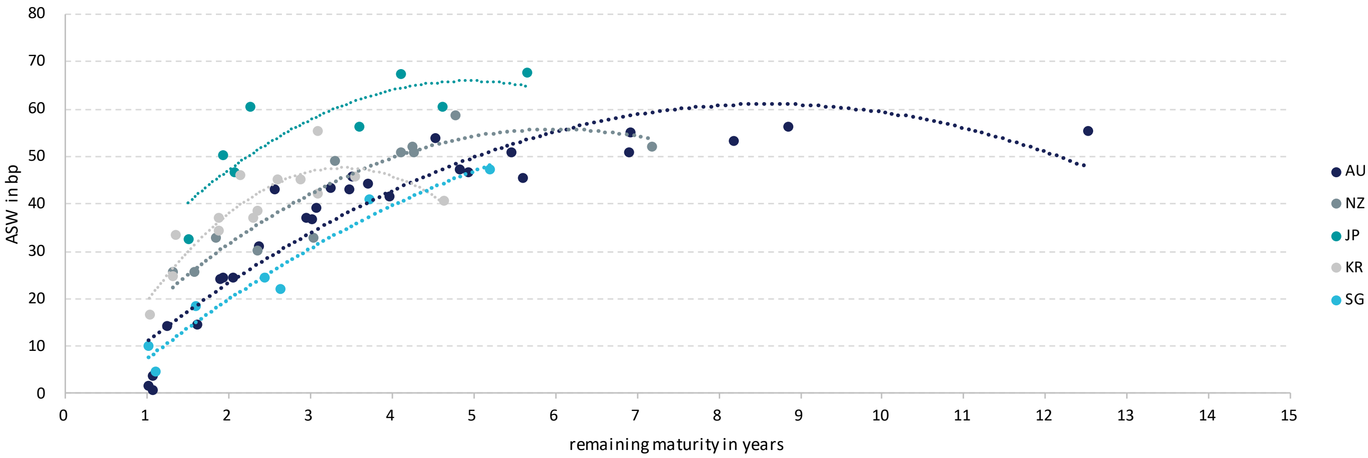


Source: market data, Bloomberg, NORD/LB Floor Research

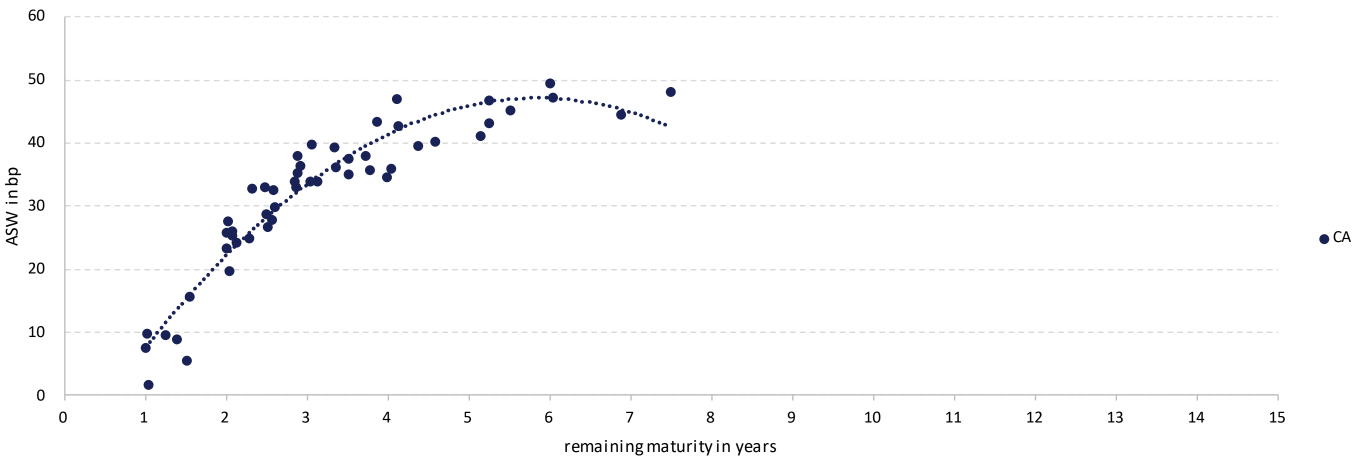
CEE



APAC



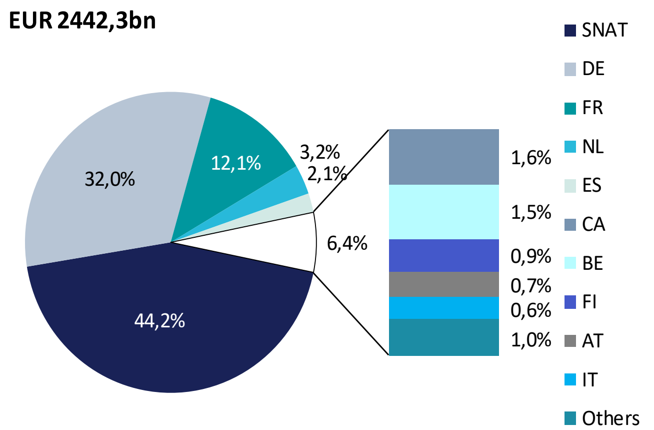
North America



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

Charts & Figures
SSA/Public Issuers

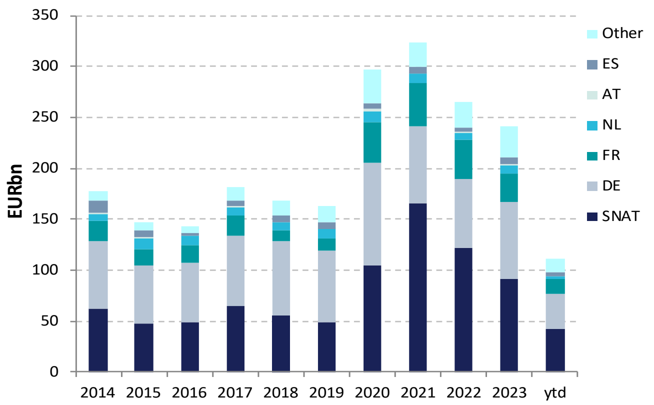
Outstanding volume (bmk)



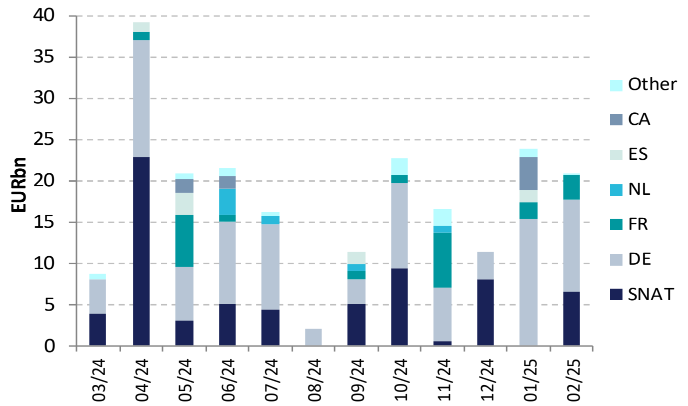
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	1.079,8	235	4,6	7,9
DE	781,7	582	1,3	6,2
FR	296,2	199	1,5	6,0
NL	77,9	67	1,2	6,7
ES	50,3	68	0,7	4,7
CA	38,1	27	1,4	4,5
BE	37,8	41	0,9	10,6
FI	22,7	24	0,9	4,8
AT	17,8	22	0,8	4,3
IT	15,2	19	0,8	4,4

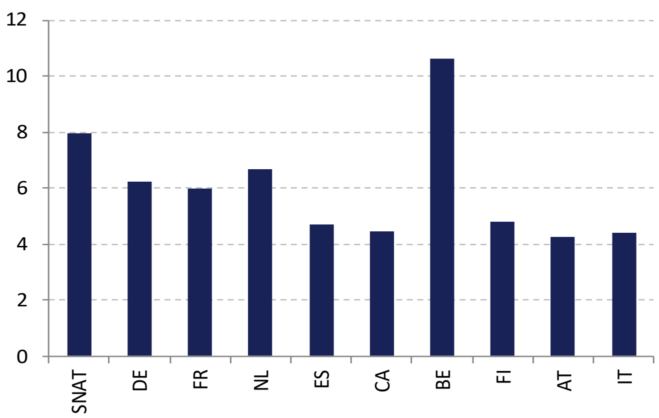
Issue volume by year (bmk)



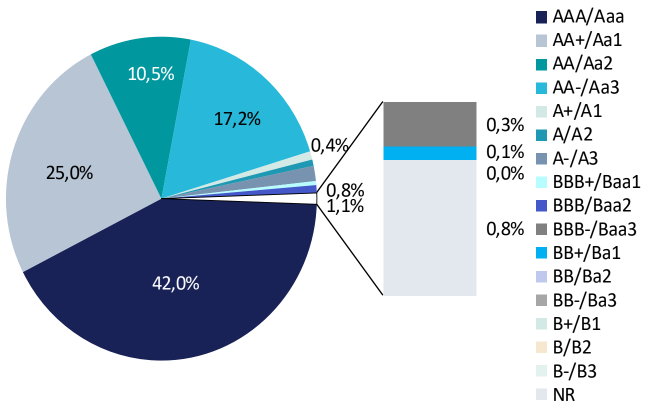
Maturities next 12 months (bmk)



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

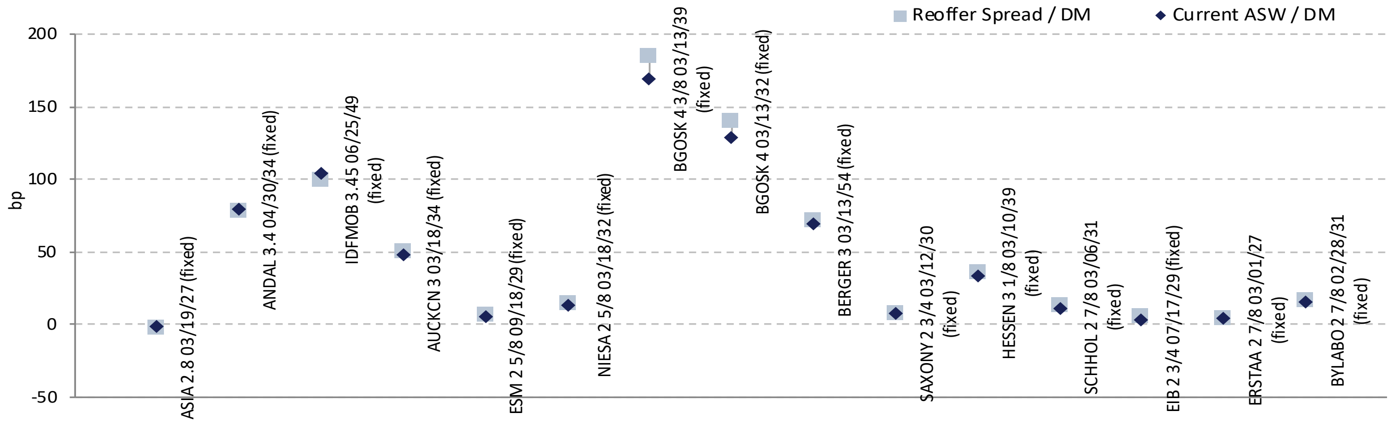


Rating distribution (vol. weighted)

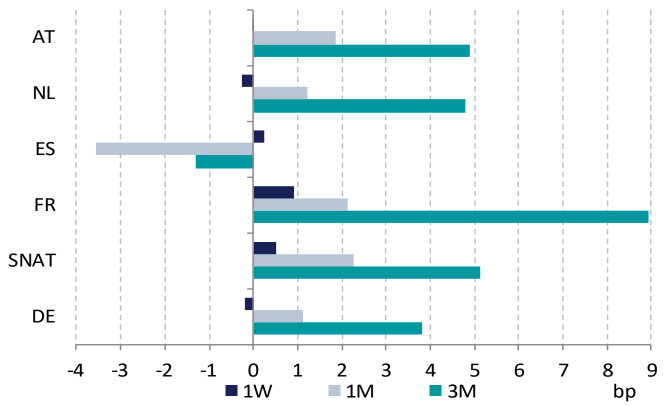


Source: Bloomberg, NORD/LB Floor Research

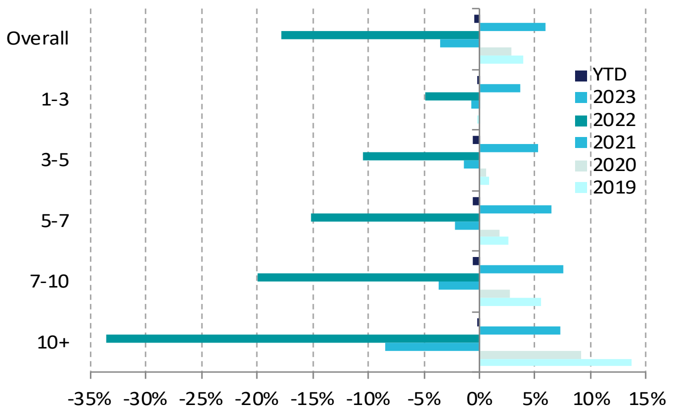
Spread development (last 15 issues)



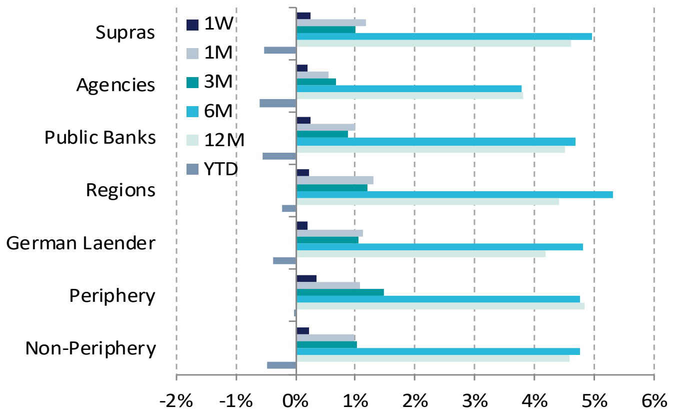
Spread development by country



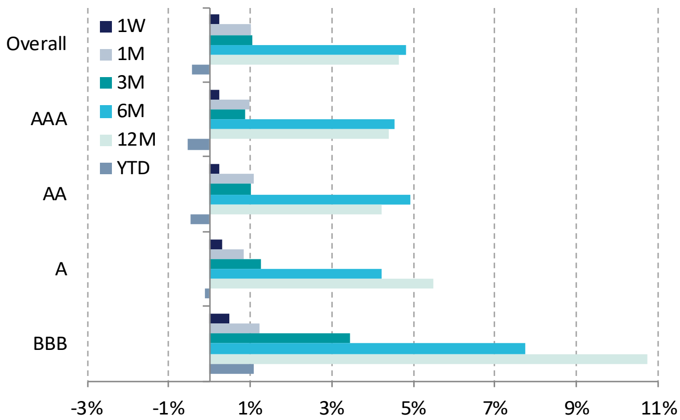
Performance (total return)



Performance (total return) by segments

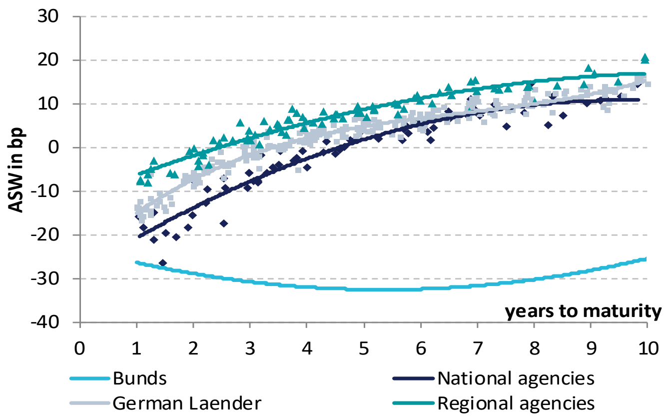


Performance (total return) by rating

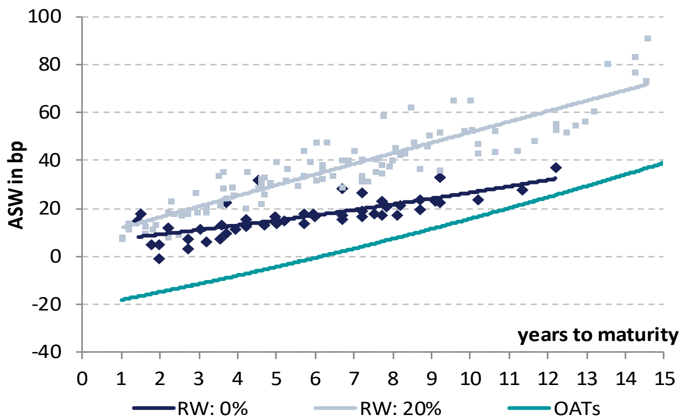


Source: Bloomberg, NORD/LB Floor Research

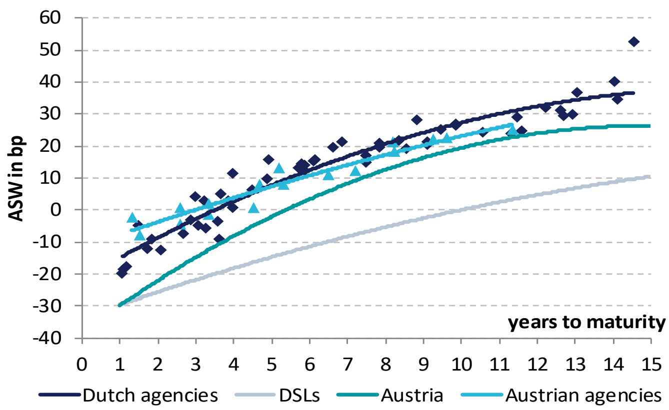
Germany (by segments)



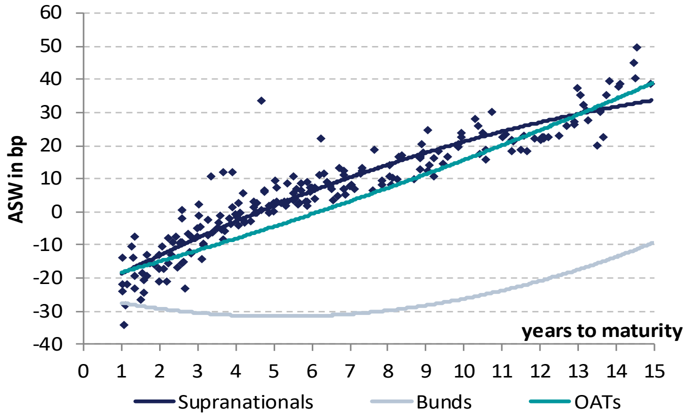
France (by risk weight)



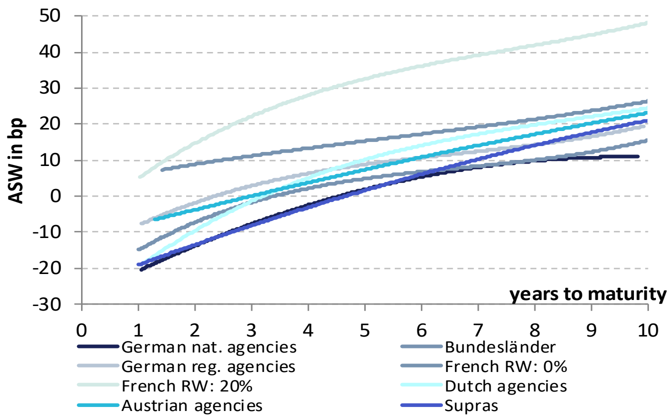
Netherlands & Austria



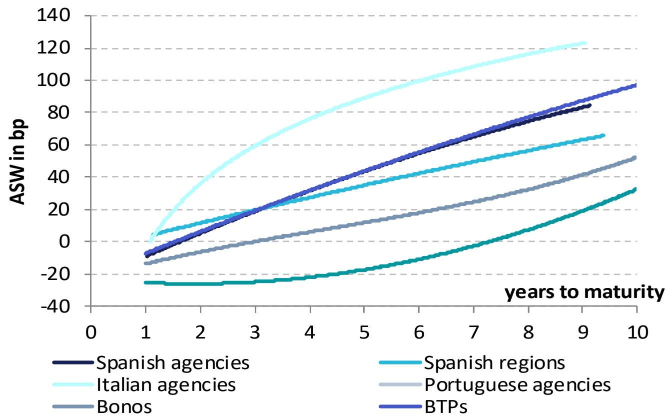
Supranationals



Core



Periphery



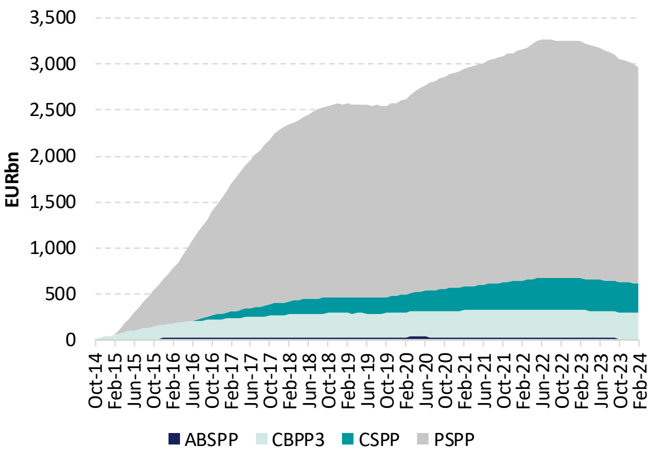
Source: Bloomberg, NORD/LB Floor Research

ECB tracker

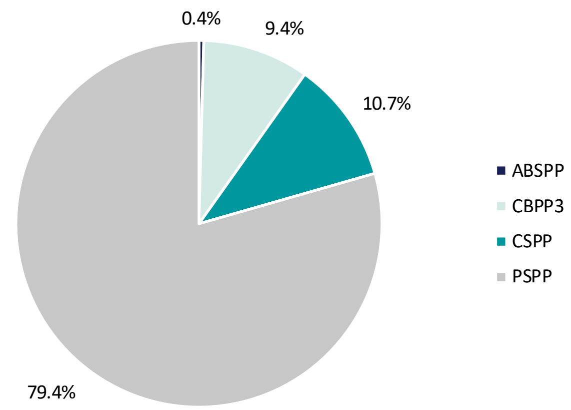
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Jan-24	12,895	281,510	320,763	2,377,495	2,992,663
Feb-24	12,547	279,061	318,688	2,356,971	2,967,267
Δ	-347	-2,449	-2,075	-20,524	-25,395

Portfolio development

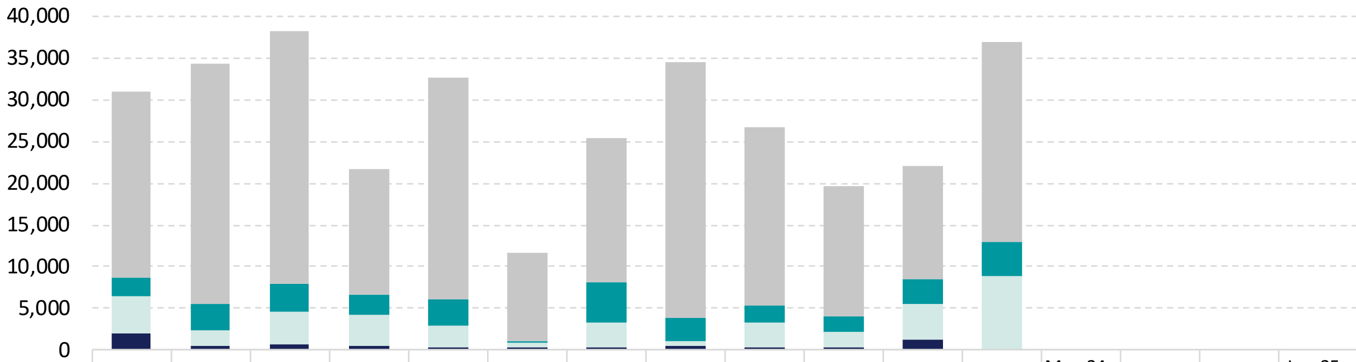


Portfolio structure



Source: ECB, NORD/LB Floor Research

Expected monthly redemptions (in EURm)

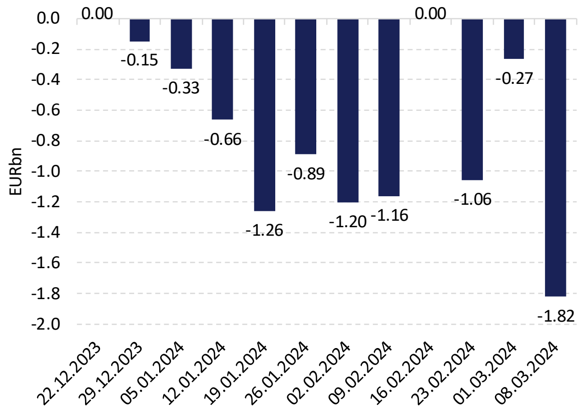


	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-24 - Feb-25	2023	2024	Jan-25 - Feb-25
APP	31,050	34,329	38,225	21,636	32,733	11,592	25,500	34,452	26,697	19,630	22,057	36,945	334,846	331,565	334,274	59,002
PSPP	22,413	28,712	30,194	14,974	26,628	10,533	17,421	30,578	21,298	15,561	13,463	24,021	255,796	255,025	264,208	37,484
CSPP	2,188	3,316	3,463	2,462	3,204	244	4,738	2,720	2,031	1,944	2,973	4,076	33,359	31,251	31,486	7,049
CBPP3	4,434	1,814	3,836	3,777	2,558	541	2,993	736	3,136	1,790	4,335	8,635	38,585	35,147	32,173	12,970
ABSPP	2,015	487	732	423	343	274	348	418	232	335	1,286	213	7,106	10,142	6,407	1,499

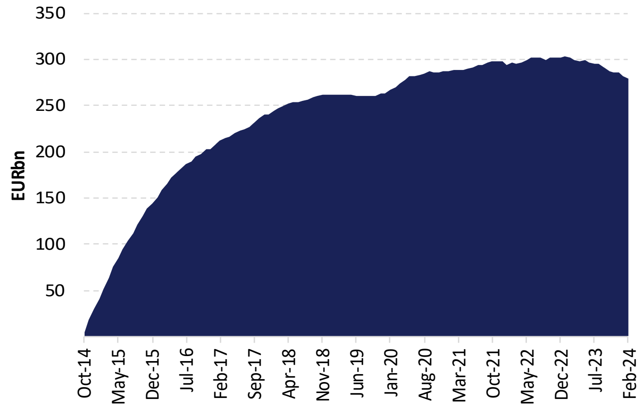
Source: ECB, Bloomberg, NORD/LB Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

Weekly purchases

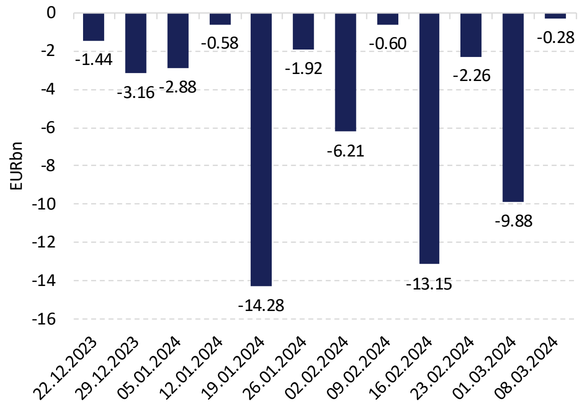


Development of CBPP3 volume

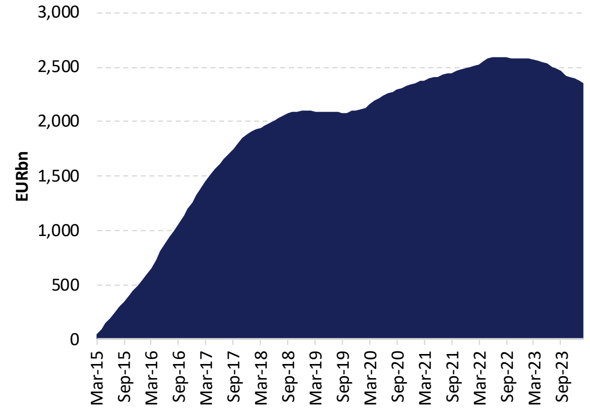


Public Sector Purchase Programme (PSPP)

Weekly purchases



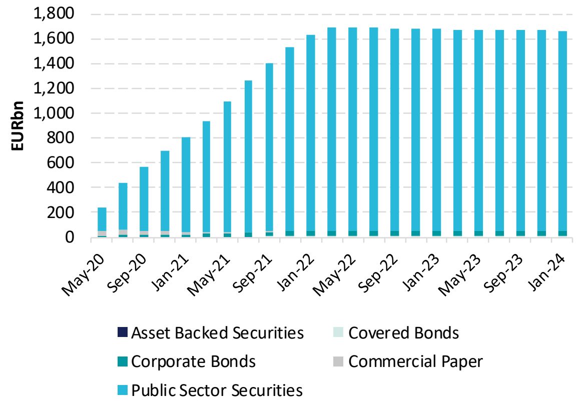
Development of PSPP volume



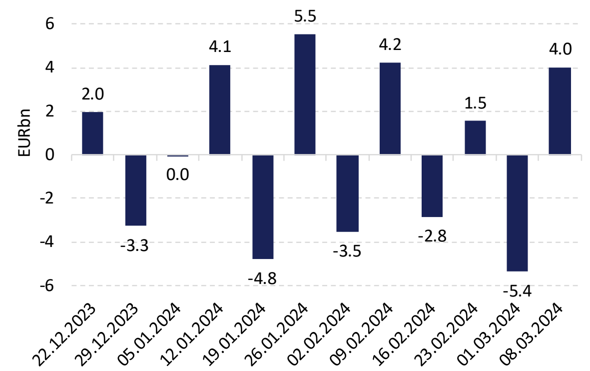
Source: ECB, Bloomberg, NORD/LB Floor Research

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
09/2024 ♦ 06 March	▪ Transparency requirements §28 PfandBG Q4/2023 ▪ Current LCR classification for our SSA coverage
08/2024 ♦ 28 February	▪ New UK player on the EUR covered bond market ▪ Teaser: Issuer Guide - Non-European supras (MDBs) 2024
07/2024 ♦ 21 February	▪ Covered bond jurisdictions in the spotlight: A look at Austria ▪ Hope for hybrids? New SSA sub-asset class for MDBs
06/2024 ♦ 14 February	▪ Development of the German property market (vdp Index) ▪ Update: Joint Laender (Ticker: LANDER)
05/2024 ♦ 07 February	▪ January 2024: Record start to the new covered bond year ▪ SSA January recap: issuance volume at record level
04/2024 ♦ 31 January	▪ The Pfandbrief market at the start of 2024: caution thrown to the wind ▪ Teaser: Issuer Guide - Other European Agencies 2024
03/2024 ♦ 24 January	▪ The “V” in the LTV calculation: Differing approaches persist despite EU Directive ▪ 28th meeting of the Stability Council (December 2023)
02/2024 ♦ 17 January	▪ Pfandbrief market: potential newcomer Evangelische Bank ▪ Review: EUR-ESG benchmarks 2023 in the SSA segment
01/2024 ♦ 10 January	▪ ECB: Annual review of 2023 – no end to high rates? ▪ Covered Bonds: Annual review of 2023 ▪ SSA: Annual review of 2023
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

NORD/LB: Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuers Research

Bloomberg: RESP NRDR <GO>

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 Q4/2023 (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

Issuer Guide – Non-European Supranationals (MDBs) 2024

Beyond Bundeslaender: Belgium

Beyond Bundeslaender: Greater Paris (IDF/VDP)

Beyond Bundeslaender: Spanish regions

Fixed Income Specials:

ESG-Update 2023

ECB decision: The council thinks game-by-game

ECB preview: Delays in operations or full focus on June?

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

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
Institutional 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 9818-9660
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):
Gehe einThis 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: 13 March 2024 (08:35)