

Do you value NORD/LB Floor Research?
GlobalCapital Bond Awards 2025

In the new category:
„Most Impressive House for SSA Research“
[We count on you!](#)



Covered Bond & SSA View

NORD/LB Floor Research

12 March 2025 ♦ 10/2025

Marketing communication (see disclaimer on the last pages)

Internal matters

GlobalCapital Bond Awards 2025

Our team would be delighted to receive your votes!

Internal matters

As in previous years, the GlobalCapital Bond Awards will again be taking place in 2025. This will be the 18th edition of this survey and vote, which serve to recognize the work of issuers, investment banks, investors, rating agencies, law firms and consultancy organisations. New categories are added practically every year, such as “Most Impressive SSA Issuer in Australian Dollars” and “Most Impressive FIG House for Inaugural Assets”, for example, or the brand-new category of “Most Impressive House for SSA Research”, which is naturally a matter close to our hearts. This year, you can vote for the best SSA research for the first time. We hope that you enjoy reading every edition of our weekly publication, the Covered Bond & SSA View, as well as our other publications on the topic of SSAs – in particular our **Issuer Guides** covering Supranationals, Sub-Sovereigns and Agencies plus the **Beyond Bundeslaender** series – and the special publications focused on the ECB and our takes on various regulatory aspects, for example. Should these publications offer you added value in your day-to-day work, we would really appreciate our readers taking the time to participate in the survey and voting for **NORD/LB Floor Research**. To this end, please visit the website to cast your votes by 04 April:

[GlobalCapital Bond Awards 2025](#).

Thanks for your continued support and your votes! We are happy to receive feedback either in person or via email at msfr@nordlb.de at any time.



Agenda

Market overview	
Covered Bonds	4
SSA/Public Issuers	6
Covereds vs. sovereign bonds: A question of attractiveness	10
NGEU: Green Bond Dashboard	14
Charts & Figures	
Covered Bonds	18
SSA/Public Issuers	24
ECB tracker	27
Cross Asset	28
Overview of latest Covered Bond & SSA View editions	29
Publication overview	30
Contacts at NORD/LB	31

Floor analysts:

Covered Bonds/Banks

Dr Frederik Kunze
frederik.kunze@nordlb.de

Lukas Kühne
lukas.kuehne@nordlb.de

Alexander Grenner
alexander.grenner@nordlb.de

SSA/Public Issuers

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

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

Tobias Cordes
tobias.cordes@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

Author: Alexander Grenner

Primary market: how long will this pause persist?

After indicating that issuers had put the brakes on to some degree in terms of new issuance activities in the previous edition of our weekly publication, the primary market has now come to a complete standstill over the past five trading days. The reasons for issuers remaining on the sidelines are likely down, in no small part, to the announcement of huge investments in defence and infrastructure from the players involved in talks to potentially form the next German government. This caused something of a stir in the markets and led to a rise in yields on German government bonds. The EU also played a part in shaping current market dynamics after its announcement of EUR 150bn in loans for defence purposes, as did the uncertainties surrounding the current US administration's trade policy. We shall use the current break in issuance activities as an opportunity to briefly review the development of the primary market so far this year. In 2025 to date, we have recorded a new issuance volume of just under EUR 42.1bn. As expected, the largest share of this, at EUR 25.9bn, was placed in January. In February, we registered new deals in the amount of EUR 15.7bn, whereas in the current month of March it is only NORD/LB that has approached the market with a covered bond worth EUR 500m. In a year-on-year comparison, the difference for January is particularly striking, with a total of EUR 40.6bn placed on the market across the first month of 2024. In February 2024, the issuance volume of EUR 14.5bn was actually marginally down on the level recorded for February 2025. Although we did revise our supply forecast for the current year downwards [last week](#), in addition to noting that issuance activities are lagging slightly below expectations, we would once again emphasise that this has been far from a "false start". When we consider certain jurisdictions individually, we have certainly noted some pleasing developments: for example, issuers from Australia have been pretty active on the primary market so far, placing three deals already in the amount of EUR 2.5bn overall. Turning our attention to the UK, covered bonds totalling EUR 3.2bn have already been placed with investors. Therefore, we can look ahead to the rest of 2025 with some degree of excitement in terms of what the remainder of the year has in store for us. In any case, we are certain that the current pause in issuance activities will shortly come to an end, as soon as the market environment becomes slightly less frenetic and initial price points can be defined.

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

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

Secondary market: quiet start to the week

Following the end of a very active trading week on the secondary market, things quietened down somewhat, with most buyers opting to remain on the sidelines at the end of the week. This picture was confirmed at the start of the new trading week, although spreads did widen slightly. Demand tended to be concentrated more towards the long end, with customer demand from Germany focused more on the medium-term segment.

Fitch identifies growing potential for new deals from the APAC region

According to the rating experts from Fitch, issuance activities for covered bonds from the APAC region increased slightly in the fourth quarter of 2024 compared with the previous quarter and are now at a level more reminiscent of that seen over the first two quarters of 2024. In total, the APAC issuers rated by Fitch brought covered bonds worth the equivalent of USD 4.5bn to market over the last three months of the year, including transactions in EUR, AUD, GBP, and USD. All of these new deals were placed in the maturity segment of between three and five years. Overall, the volume of new deals from the rated programmes practically halved in 2024 compared with the previous year, eventually settling at a similar level to 2022. For the current year, Fitch expects maturities equivalent to USD 25bn (twice as high as in 2024), with significant potential for growth in the new issuance volume across 2025. Moreover, Fitch recently published updates to its Residential Mortgage Analysis Rating Criteria. These relate to mortgage-backed covered bonds from jurisdictions where Fitch does not have specifically applicable RMBS criteria, including South Korea and Singapore. The revisions include a reduction from 40% to 35% in the prepayment assumption level in South Korea. Nevertheless, the rating experts explain further that this has no rating impact because the cash flow analysis of the South Korean programmes is based on the assumption of lower prepayments. In tandem with our recently published [focus article](#), these announcements are, from our perspective, signs of a growing primary market for covered bonds in EUR benchmark format from the APAC region, which has in fact already been highly dynamic in the year to date.

vdp formulates five demands to stimulate the housing market

In view of the upcoming coalition negotiations between the CDU/CSU and the SPD aimed at forming the new government in Germany, the Association of German Pfandbrief Banks (vdp) recently issued a [press release](#), in which it has called for housing policy to form a central tenet of the future government's work. Jens Tolckmitt, Chief Executive of the vdp, described as positive the recently agreed commitment between the CDU/CSU and SPD to significantly increase investments in defence and infrastructure. At the same time, however, he believes that the governing coalition must not lose sight of the problem with regard to a lack of affordable housing, a situation which has only been getting worse for many years now. In his view, this is not only important from a social perspective, but also entails direct implications for Germany as a business location. In specific terms, the vdp is calling for the new government to implement five measures: 1. Retain an independent Federal Building Ministry with extended powers, particularly with regard to the energy-efficient renovation of the existing housing stock; 2. Reduce property transfer tax, with the aim of facilitating the acquisition of owner-occupied housing; 3. Abolish the sectoral systemic risk buffer, as this would facilitate lending and promote investment in housing construction; 4. Lower the risk weight for project developments (pan-European regulation, meaning that this cannot be decided unilaterally), as this would ease capital requirements and lower financing costs on the part of banks; and 5. State default guarantees for housing construction for 80% of the total amount of loans granted. This would reduce the risk weight of the loans with only a marginal increase in financial burden, thereby facilitating the provision of low-interest financing. The vdp hopes that, should these demands be implemented, they would bring about a positive impact for the housing market. From our standpoint, these developments are also highly relevant to the covered bond market, as increased lending would simultaneously increase the refinancing requirements of the banks involved.

Market overview

SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIAA // Lukas-Finn Frese // Tobias Cordes

ECB cuts rates in the midst of “Rambo-Zambo” bond packages

The glory days of European monetary policy being predictable are likely to have drawn to a close last Thursday. As expected, the ECB’s Governing Council cut the rate for the deposit facility by 25 basis points to 2.5%. The rate for main refinancing operations also fell from 2.9% to 2.65%, while that of the marginal lending facility was reduced from 3.15% to 2.9%. This was the sixth cut since mid-2024 and the fifth in succession. Interest rates are therefore continuing their downward trend. In this context, we forecast that the ECB will take a break at the upcoming meeting of the Governing Council on 17 April. We would then have the prospect of a further cut in June and a cut in the second half of 2025. Nevertheless, as usual, the ECB played its cards close to its chest with regard to the future course of monetary policy. However, it is clear from the amended statement that the Governing Council believes that its duty is to only make decisions under much consideration. For instance, it contained a reference to the fact that monetary policy and consequently financing conditions for companies and private households would be “noticeably less” restrictive. We interpret the new wording of the monetary policy course as a kind of compromise between the hawks and the doves and as the expression of an ever-growing rift between the ECB’s decision-makers. In our [special](#) publication, we gave ourselves sufficient time and scope not merely to comment on the hullabaloo resulting from the additional interest rate cuts on the part of the ECB, but also to consider the uproar in the USA and, in particular, the party mood felt by the new coalition parties – expressed by Friedrich Merz as “Rambo-Zambo”. The planned “Rambo Zambo” bonds of the German special funds for defence (Rambo) and against the investment backlog (Zambo) are likely to have an upward impact on growth prospects and the inflation forecast over the period under consideration.

Side note: special fund not a sure-fire success

The market is currently more volatile than it has been for a long time – in addition to equities markets, this is also true of bond markets due to the anticipated new borrowing by the EU (an additional EUR 150bn up to the end of 2029) and the announcement of two German special funds for defence (EUR 400bn) and infrastructure (EUR 500bn). Technically speaking, both seem to be mediocre at most, although we clearly recognise the urgency, especially as far as defence spending is concerned. German taxpayers cannot be expected to simply accept planned expenditure being pushed into the new special funds, just so that no cuts have to be made in the actual budget in order to live up to election promises. Even the CDU’s Economic Council criticises the present plans – to say nothing of the Greens’ open letters. As analysts, we do not view the fact that consideration is being given in the new political landscape to merging two departments and, as a result, saving on one minister plus staff, as a serious reduction in bureaucracy either. While explicitly not welcoming the (Latin) American approach of Elon Musk and Javier Milei involving their weapon of choice, either an axe or a chainsaw (buzzword: DOGE), we do believe that a scalpel needs to be applied quickly at least. And even more importantly: just because the debt brake could be reformed at federal level, this will not necessarily be the case at Laender level. Only four of the 16 Laender do not include a regulation in their constitution and would not be dependent on a local two-thirds majority (BERGER, NRW, THRGN and SAARLD).

S&P again revises its outlook for France and sub-sovereign entities

France's budget situation and debt levels are still a source of concern on capital markets. On 28 February, S&P announced that it was revising the outlook for France's credit rating from stable to negative. Last year, the risk experts were forced to downgrade the rating entirely ([cf. weekly publication dated 12 Juni 2024](#)). As was the case last year, the decision had a direct impact on the ratings of sub-sovereign issuers. Accordingly, S&P also revised the outlook downwards for eight public issuers in our coverage, namely: Caisse d'Amortisation de la Dette Sociale (ticker: CADES), Agence Française de Développement (ticker: AGRFNC), Caisse des Dépôts et Consignations (ticker: CDCEPS), Société Anonyme de Gestion de Stocks de Sécurité (ticker: SAGESS), Agence France Locale (ticker: AFLBNK), Société de Financement Local (ticker: SFILFR), Dexia (ticker: DEXGRP) and EFSF. The rating agency also assessed the rating of Unédic (ticker: UNEDIC), which is primarily responsible for administering the French unemployment insurance system, for the first time. As is the case with the above-mentioned agencies, S&P equates the creditworthiness of Unédic with that of the French state. Consequently, it was given a rating of "AA-" with a negative outlook. In the wake of the COVID-19 pandemic, the agency accumulated huge amounts of debt, although the amount of liabilities has stabilised in the past few years and should decrease in future. Since, however, Unédic's financial result is determined by the economic situation, the risk experts at S&P believe that any future reduction in its debts is exposed to significant headwinds. Accordingly, the forecasts for the debt reduction are adversely affected by the current weakness in the economy. Unédic plans to reduce its debts to EUR 44.3bn by the end of 2027, which will be virtually impossible, according to S&P's assessment at the current time.

Establishment of an African stability mechanism agreed

At the summit meeting of the African Union in Addis Ababa, Ethiopia, the African Development Bank (AfDB, ticker: AFDB) presented its initiative on the African Financial Stability Mechanism (AFSM), which was in response to a request from the African heads of state and government for the establishment of such a continental financial stability fund in 2022, in which they tasked the AfDB with making the requisite preparations for it. The aim of the AFSM, the establishment of which was also officially agreed at the summit of African heads of state and government, is to cover the urgent need for liquidity to refinance debts and to guarantee financial stability throughout Africa. To date, Africa has not had a special regional financial mechanism to cushion the risks of debt refinancing. "Africa therefore needs a regional safety net to provide affordable liquidity for the refinancing of substantial borrowings", said the President of the AfDB, Akinwumi Adesina. The AfDB now intends to draw up a formal agreement in the near future and ensure that it is ratified by the states. "If the AFSM is implemented as planned, African states can cut the costs of servicing their debts by around USD 20bn by 2035", stated Kevin Urama, Vice-President and Chief Economist of the AfDB. The AFSM is also to be given its own rating so that it can raise loans on international capital markets. Membership is voluntary and will be open to every Member State in the African Union. According to the AfDB, the intention is also that at least 20% of the members will be from outside Africa, providing that African states retain the majority.

The federal financial equalisation system in 2024

The federal financial equalisation system among the Laender (LFA) aims to ensure equal living conditions in all 16 German Laender. The federal Ministry of Finance has now presented the [figures for last year](#). As the details regarding the distribution of VAT (UStV) and the system for Financial Power Equalisation (FKA) make clear, four Laender, namely Bavaria, Baden-Wuerttemberg, Hesse and Hamburg, had to accept reductions under the FKA. Even though this label is no longer strictly applicable, these Laender may still be characterised as “donor Laender”. Meanwhile, twelve Laender can be characterised as “recipient Laender”. All in all, an amount of EUR 18.7bn was redistributed between the Laender last year. Bavaria was the largest donor, contributing EUR 9.8bn, or just under 52% of the total amount. Berlin was the greatest beneficiary, receiving EUR 3.9bn. Historically, the East German non-city states have been among the largest beneficiaries of the system too, and this remained the case in 2024. Despite the reform of the LFA in 2020, when the labels “donor” and “recipient” were practically done away with – since the Laender no longer de facto pay contributions from their budgets – the present system is still criticised. For instance, Bavaria brought an action in 2023 in the Federal Constitutional Court demanding a fairer equalisation system, where the recipient Laender take far greater individual responsibility and where an individual donor shoulders less of the burden. Please refer to our [NORD/LB Issuer Guide – German Laender 2024](#) for more information on the federal financial equalisation system between the German Laender. We will once again make a detailed critical assessment of the system in an updated issue this year.

Rhineland-Palatinate: provisional statement of the 2024 budget

Rhineland-Palatinate (ticker: RHIPAL) has presented the provisional statement of the 2024 state budget, in which it closed the year with a positive fiscal balance. Accordingly, tax revenues last year came to EUR 18.6bn. Under the rules of Rhineland-Palatinate’s debt brake, the taxation trend meant that EUR 238m had to be repaid, while the 2024 budget plan still estimated cyclical borrowings of EUR 330m. Adjusted total revenues came to EUR 23.6bn overall. In contrast, adjusted total expenditure of EUR 22.5bn was approximately EUR -202m less than originally calculated in the 2024 budget. In comparison with the previous year, expenses increased by EUR +1.3bn (+6.3%), which was attributable to the increase in personnel expenses of EUR +574m resulting from the collective agreement for public sector staff employed by the Laender. Payments to municipalities increased by EUR +691m year on year and therefore came to a total of EUR 8.2bn, which accounted for significantly more than one third of the state budget. At EUR 1.3bn, investment expenses in the core budget were EUR +137m more than in the previous year. The state repaid debts of EUR 791m net on the capital market, which included EUR 500m for the repayment of municipal debt assumed by Rhineland-Palatinate. The requirements of the debt brake were therefore met again in 2024. “The provisional statement for the 2024 budget shows that the regional government’s budget policy can be relied on. We keep the budget stable even in challenging times. We support the municipalities and provide for future budgets with the aim of providing more scope for developing future tasks”, said Minister of Finance Doris Ahnen.

Alberta presents its 2025 provincial budget

The Canadian province of Alberta has presented its 2025 budget. Accordingly, total expenses for the budget year 2025/26 should come to CAD 79.3bn (EUR equivalent: EUR 53.6bn), while revenues are calculated to reach CAD 74.1bn. Under a comprehensive investment plan, CAD 26.1bn is to be invested in the modernisation and construction of schools, hospitals and transport infrastructure among other items over the next three years. The province expects this to create 26,500 direct jobs and 12,000 indirect jobs on average each year. All in all, the budget deficit should therefore amount to CAD -5.2bn. However, in subsequent years, this should be reduced to up to CAD -2bn in budget year 2027/28 as a result of projected additional revenues from income taxes. The government's financial policy framework provides for permissible exceptions, in which the province may report a deficit as a result of a considerable fall in revenues, among other factors. The costs of debt servicing in 2025/26 will fall by CAD -231m to CAD 3bn compared with the forecast for 2024/25, since the funds raised in advance in 2024/25 were used to repay substantial liabilities at the beginning of 2025/26. With regard to economic growth, Alberta assumes under its budget plan that real GDP will increase by +1.8% year on year in 2025 and by +1.7% year on year in 2026.

Primary market

Against the backdrop of continuing political uncertainties, things were somewhat quieter on the SSA primary market in the trading week under review. Baden-Wuerttemberg (ticker: BADWUR) kicked off activities, raising EUR 1bn (5y) in line with guidance at ms +27bp in its third EUR benchmark this year. Staying with the German Laender segment, Rhineland-Palatinate (ticker: RHIPAL) followed suit, seeking to raise new funding of EUR 1bn with a maturity of two years. Of this figure, EUR 350m was retained by the issuer. It was priced at ms +10bp (guidance: ms +10bp area). The Polish development bank Bank Gospodarstwa Krajowego (ticker: BGOSK) ventured onto the market with a dual tranche: while the five-year bond was issued in the amount of EUR 1.25bn at ms +85bp (IPT: ms +120bp area), the twelve-year bond came to the market in the amount of EUR 1.0bn at ms +165bp (IPT: ms +195bp area). Yesterday (Tuesday), attention was focused primarily on the EU, which issued a bond worth EUR 9bn with a ten-year maturity. At the end of the marketing phase, the order book reached around EUR 95bn, meaning that the deal was finally completed at ms +65bp (guidance: ms +67bp area). Now let's preview the week ahead: NIB issued mandates for a [green bond](#) (7y), UNEDIC for a [social](#) benchmark (8y) and Berlin (ticker: BERGER) for a benchmark in the ten-year maturity segment. [Queensland](#) (ticker: QTC) also intends to issue a EUR benchmark (10y) and will be holding discussions with investors for this purpose from 17 March. Outside of our regular coverage, the [Arab Bank for Economic Development in Africa](#) (ticker: ARBBNK) also plans to place a EUR bond (3y) and has been talking to investors for this purpose since Monday.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
BGOSK	Other	11.03.	XS3025944573	12.0y	1.00bn	ms +165bp	A- / A2 / -	-
BGOSK	Other	11.03.	XS3026019334	5.0y	1.25bn	ms +85bp	A- / A2 / -	-
EU	SNAT	11.03.	EU000A4D8KD2	10.8y	9.00bn	ms +65bp	AAA / Aaa / AA+	-
RHIPAL	DE	11.03.	DE000RLP1593	2.0y	1.00bn	ms +10bp	AAA / - / -	-
BADWUR	DE	05.03.	DE000A3H2515	5.0y	1.00bn	ms +27bp	- / Aaa / AA+	-

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

Covered Bonds

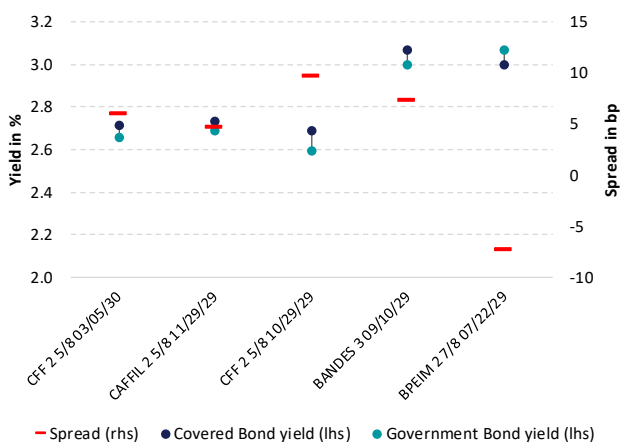
Covereds vs. sovereign bonds: A question of attractiveness

Author: Lukas Kühne

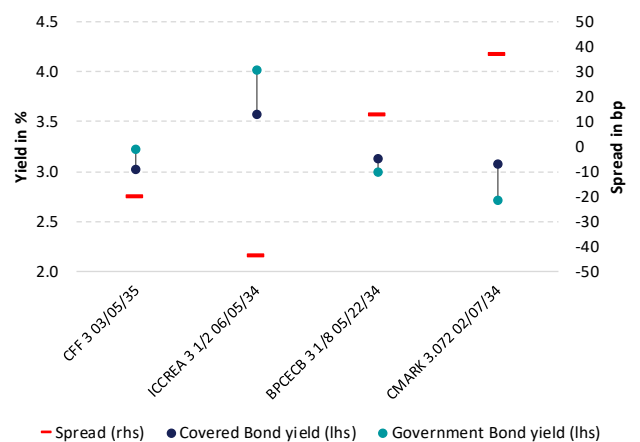
Government bonds promise higher yields than covered bonds in some cases

The increase in European government bond yields observed in the last few days also offers new implications for the spread landscape in the covered bond market from a relative value perspective. These latest movements were mainly triggered by Germany’s announcement that it would be massively increasing its defence and infrastructure spending as well as the EU’s plans to provide its Member States with loans totaling EUR 150bn to increase their defence spending. Even prior to these yield increases, it was not uncommon in some European countries for government bonds to have higher yields than comparable covered bonds. In the following sections, the yield spread between a covered bond and the corresponding generic yield curve of government bonds from the same jurisdiction is referred to as G-spread. A negative G-spread is generally due to country-specific factors and is often connected with the market players’ assessment of the country’s creditworthiness. In light of the rise in government bond yields, it will be interesting to see whether a similar development could also extend to other jurisdictions. This article focuses on an anecdotal survey of the countries where government bonds are trading at a premium to covered bonds and the reasons for this. The main emphasis is on covered bond issues from France and Italy. In these countries, we were able to identify some deals over the past two years that had a negative G-spread at the time of issue. However, this observation only applies to isolated deals and cannot be applied unreservedly to all covered bond issues from these jurisdictions. As a point of contrast, we shall also shine a light on issues from Germany and Austria, where we were not yet able to observe this phenomenon at the time of issue.

Covered bond yield (5y): FR and IT¹



Covered bond yield (10y): FR and IT¹



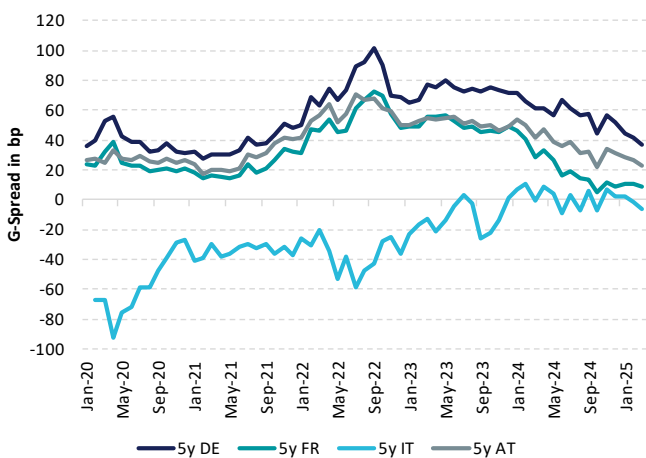
¹ Yields at time of issuance

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

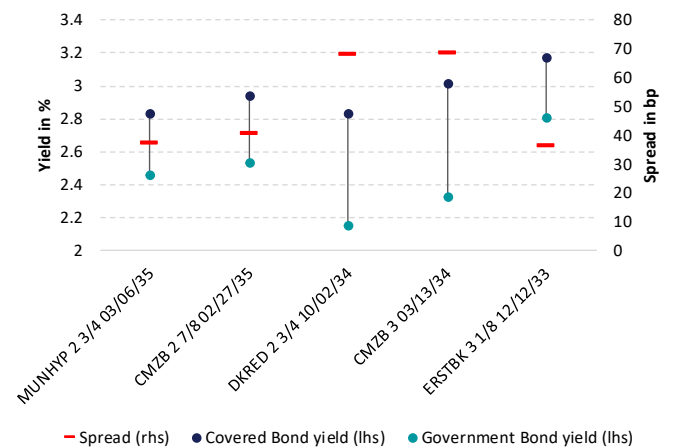
G-spreads in Italy and France occasionally in negative territory

In Italy, we have seen for quite a while now that the prices of some covered bonds are within the curve of Italian government bonds. The key reason for this trend is the assessment of the Italian government’s creditworthiness on the part of market players, which is expressed in higher yield demands by investors and is also reflected in Italy’s sovereign rating. While all Italian EUR benchmark issuers have a rating of AA (S&P, Fitch) or Aa3 (Moody’s), the Italian government’s rating is significantly lower at BBB or Baa3. An example of an Italian covered bond trading below the government bond curve at the time of issue is the Credit Agricole Italia deal from January 2025. At the time of issue, the yield on this covered bond (9.1y) was more than 20bp below the yield on comparable Italian government bonds. Looking at the absolute yields of covered bonds is essentially just another way of presenting our usual approach of looking at spreads versus swaps. While negative G-spreads have long been seen in Italy, this phenomenon has only come to the fore more noticeably in France since last year. The significant rise in the yields on OATs last year was mainly due to the debate surrounding the French government deficit. The downgrade of the French government’s rating in 2024 also had no dampening effect on the development of OATs. An ambivalent picture is emerging in terms of the G-spread for the dual tranche of Cie de Financement Foncier (CCF) placed on 24 February 2025. While the ten-year covered bond was priced below the OAT curve, the five-year deal traded in slightly positive territory. Two factors play a crucial role in this consideration and lead to different results, namely the steepness of the OAT curve compared to the asset swap spread and the additional spread concessions that the issuer has to grant investors for a term five years longer. In principle, the OAT curve is steeper at the longer end than the CCF issue curve, meaning that the G-spread is negative. Accordingly, investors demand a lower yield for a longer-dated French covered bond from this issuer than for a comparable bond from the French government. Overall, negative G-spreads are more likely to be observed for covered bonds with longer maturities.

G-spreads: DE, FR, IT, AT (5y generic)



Covered bond yield (10y): DE and AT¹



¹ Yields at time of issuance

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

Spreads of Pfandbriefe to bunds on the slide, but still well into positive terrain

Compared with France and Italy, Pfandbriefe currently still have a pick-up over German government bonds (bunds). In terms of the amount of the pick-up, it can be said that this has fallen significantly in recent months. A good example of this are the two ten-year Pfandbrief issues by Münchener Hypothekbank, one from January 2024 and the other from February 2025. At the time of issue, the difference in yield between the Pfandbrief placed by Münchener Hypothekbank in January 2024 and bunds was almost 70bp, while that for the bond placed in February 2025 was only just over 35bp. In our opinion, this example is a good illustration of the trend seen in recent months. A similar development can also be observed in Austria. For example, the Erste Group Bank covered bond (9.8y) placed in March 2024 is currently trading slightly below the curve for Austrian government bonds. At the time of issue, the G-spread of the covered bond was still over 30bp.

Attractiveness of covered bonds: more than just relative value

From an investor perspective, the attractiveness of a covered bond is not only reflected in the relative value compared with government bonds, but rather comprises a multifactorial picture that can differ depending on the investor. In jurisdictions where the G-spread is trading negatively, the rating of the covered bonds is generally much better than that of the government. For investors who have clear requirements regarding the credit rating of certain securities or who also focus on the actual risk, the rating of Italian government bonds (BBB or Baa3), for example, could be an exclusion criterion, whereas Italian covered bonds are not directly affected by this. Another argument in favour of covered bonds is that they are normally less volatile than government bonds. With the current rise in government bond yields, covered bonds continue to look very attractive to investors focusing on the absolute yield level. Investors who, on the other hand, view the covered bond market from a relative value perspective should not follow this logic. One group of investors who must buy covered bonds regardless of these considerations, are index investors. The investor landscape for such covered bonds is correspondingly diverse in nature.

Bund-swap-spread



G-spreads DE (generic)



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

Yield increase is compressing spreads between government bonds and covered bonds

The rise in bund yields last week led to a significant compression of the spread between Pfandbriefe and bunds. Ten-year bunds, for example, were only trading around 20bp above comparable Pfandbriefe on average, while the difference was still around 40bp towards the end of 2024. The bund-swap-spread fell to a new low in light of the increased German government bond yields. Lows in the bund-swap-spread had already triggered a repricing process on the covered bond market at the end of last year. The rise in bund yields seen at the moment could also have the potential to lead to moderate spread widening on the covered bond market, especially in the longer maturity segment. Market participants should always focus on the relative value between covered bonds and issues from the SSA universe with comparable maturities. However, in the short term, we do not believe that the difference between Pfandbriefe and bunds will return to the “old” level of above 40bp. The rise in government bond yields is not just restricted to Germany, but is being felt in almost all EU countries. Accordingly, we could imagine, for example, that a covered bond could also be placed below the curve of Austrian government bonds in Austria in the near future. Overall, however, this phenomenon should remain limited to a few jurisdictions and be restricted primarily to individual deals, particularly those with a longer term.

Conclusion and outlook

For some time now, it has not been uncommon for covered bonds in some jurisdictions to offer a lower yield than government bonds of the country in question. We have also taken a closer look at this phenomenon in light of the recent increase in yields on European government bonds. In Italy, for example, covered bonds have long been priced below the curve of Italian government bonds, which is in particular due to the credit rating of the Italian government. In France, political uncertainty and the debate surrounding the government deficit have led to a similar trend, while in Germany the spread between Pfandbriefe and government bonds has been significantly compressed due to the recent rise in yields. The yield pick-up of Pfandbriefe over bunds remains significant, even if it has narrowed considerably in recent months. Investors assess the attractiveness of covered bonds not only in comparison with government bonds, but also taking into account their individual creditworthiness requirements and the generally lower volatility of covered bonds. Accordingly, placements of covered bonds below the respective government curve are not necessarily unattractive. Overall, the observed phenomenon is largely limited to individual covered bonds with longer terms to maturity.

SSA/Public Issuers

NGEU: Green Bond Dashboard

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

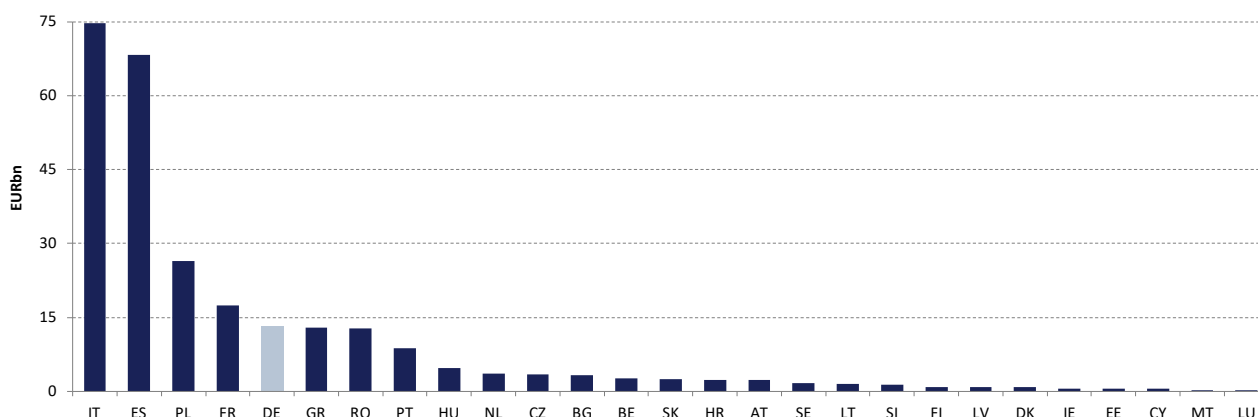
Introduction

In 2022, the European Union launched its [NextGenerationEU Green Bond Dashboard](#). It provides transparent insights into sustainable investments made to date and those planned as part of the Recovery and Resilience Facility (RRF). Green bonds worth almost EUR 73.2bn in total have been placed to date under the NextGenerationEU (NGEU) programme. The European Commission stated that of the proceeds raised, just under EUR 43.1bn has so far been invested in the Member States. These figures might seem rather sobering and not just at first glance. Based on the expenditures reported to date in connection with the approved national recovery and resilience plans of the various Member States, a total of EUR 267.9bn is eligible for inclusion in the pool of green bonds financing in the period up to the end of 2026. The highest share by far has been recorded for Italy at EUR 74.8bn, closely followed by Spain at EUR 68.3bn.

NGEU review

We will start with a brief review of the NGEU programme, which was adopted by the European Council as a stimulus package in the wake of the onset of the COVID-19 pandemic in 2020. It comprises a volume of just over EUR 800bn (at current prices). The aim of the package is for the EU to emerge stronger from the pandemic, to transform national economies within the Member States as well as to create new jobs. The above-mentioned Recovery and Resilience Facility represents the core element of NGEU and comprises a total volume of EUR 650bn (as at mid-October 2024). It is used to provide loans (up to EUR 291bn, repayable by the respective Member States) and grants (up to EUR 359bn). Moreover, a further sum of EUR 83.1bn is to be used for key EU projects. 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.

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



Source: EU, NORD/LB Floor Research

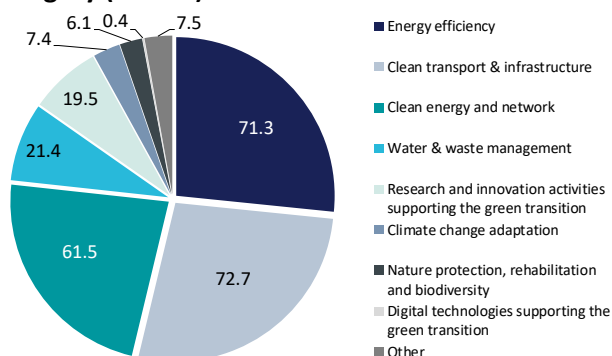
The Recovery and Resilience Facility (RRF)

The RRF came into force in February 2021 and is a temporary financing tool. It enables the European Commission to make funds available to its Member States for financing reforms and investments that are in line with the EU's priorities. The dual objective pursued on the basis of the facility covers the EU's intention to be climate neutral by 2050 as well as the introduction/further advancement of a digital transformation in the EU. To receive RRF funds, Member States must submit plans for investments and reforms which both promote national economic recovery and strengthen social resilience. Countries may be granted financial means up to a specified amount based on forecasts. In 2023, the number of approved recovery and resilience plans (RRP) rose to 27 and consequently now encompasses all EU Member States. The above chart reflects this. Green bond eligible investments were only anchored in Hungary's amended recovery plan at the end of 2023. For this reason, the country was not yet included in our review of the Green Bond Dashboard last year. In principle, specific targets apply to the RRP: these include that 20% of the planned expenditure is to be allocated to digital measures and 37% to green measures. Combined, the approved RRP actually go beyond these figures: at 26% and 42% respectively, both the share of expenditure on the digital transformation and that on measures contributing to climate objectives exceed the specified targets. The facility is based on a total of six elements:

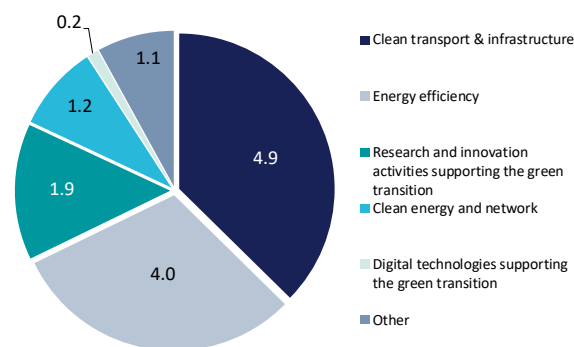
- Green transition
- Digital transformation
- Smart, sustainable and inclusive growth Social and territorial cohesion
- Health, and economic, social and institutional resilience
- Policies for next generation

The RRF is performance-based, which means that the European Commission only pays out the relevant amounts to countries in the form of tranches when they have achieved the agreed milestones and targets towards completing the investments and reforms included in their respective national RRP. As soon as the European Commission has approved an RRP, relevant loans are agreed with the Member State. Once agreements have been signed, countries then receive up to 13% of the relevant amount in prefinancing – within two months “where possible”. An assessment of the previously defined milestones is subsequently carried out up to twice a year. If the milestones have been achieved, the next payment is disbursed at the relevant Member State's request. If the European Commission concludes that not all milestones and targets have been fulfilled satisfactorily, it may only make a partial payment. The relevant country then has six months in which to take the necessary measures for achieving the specific milestone. If the country fails to achieve it within the prescribed period of time, the European Commission may reduce the total amount of financial support. However, the member state may also decide that objective circumstances make it impossible to achieve the specified milestones and targets. In this case, there is the option of presenting a revised 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](#) Germany presented was first approved on 13 July 2021 and revised versions then on 14 February 2023, 08 December 2023 and 16 July 2024. The plan provides for grants amounting to EUR 30.3bn. Of this, at least 49.5% is earmarked for climate objectives and 47.5% for the digital transformation. This means that Germany has applied for only slightly more than Romania or Greece, for instance, and is now in fifth place in terms of the largest amounts. We have continually criticised this fact since 2021. In a study conducted on behalf of Germany's Federal Ministry of Finance in 2021, the German Institute for Economic Research (Deutsches Institut für Wirtschaftsforschung, DIW) projected that the country's GDP in real terms for 2040 could be 1.9% higher as a result of measures outlined in Germany's RRP, assuming that all other conditions remain the same, and additionally, up to 230,000 new jobs may be created. However, at the time of the study, there was no war in Ukraine on the one hand, nor any "Rambo-Zambo" economic stimulus packages for defence and infrastructure on the other (cf. [SSA Market Overview](#)). According to the study, Germany does not just benefit from its national RRP. In view of the expected economic upswing in other member states – as a result of the NGEU programme – an increase in exports is expected with the associated spillover effects that in turn would boost economic growth. In detail, Germany's national plan in respect of the green transformation, for example, specifies EUR 3.7bn for decarbonising the economy – industry, in particular – with a focus on developing a powerful hydrogen economy along the entire value chain. An amount of EUR 7bn is indicated for more sustainable transport and infrastructure, especially in terms of electric vehicles, both cars and public transport. Furthermore, an amount of EUR 6.2bn is to be spent on a large-scale renovation programme to increase the energy efficiency of residential buildings. With regard to the digital transition, an amount of EUR 1.5bn, for example, is earmarked for a pan-European initiative in micro-electronics and communications technology. An additional EUR 750m is to be invested in another pan-European project involving cloud infrastructure and services. The plan also specifies EUR 2.5bn for the digitalisation of public services in accordance with the German Online Access Act (OZG). Regarding green bond eligible funds, the plan specifies that of the total amount of EUR 30.3bn, EUR 13.1bn may be financed on the basis of green bonds. In this respect, the highest share is attributable to the category of clean transport and infrastructure at EUR 4.9bn (37%). An amount of EUR 4bn (30%) is allocated to the energy efficiency category, followed by research and innovation activities supporting the green transition at EUR 1.9bn (14%). In the categories of clean energy, digital technologies and "other" an aggregated volume of EUR 1.2bn (9%) can be financed via green bonds.

Green bond proceeds: largest investment share in clean transport and infrastructure

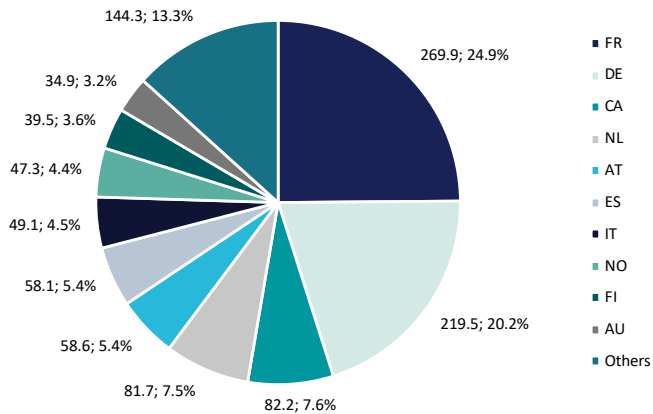
Considering all investments eligible for inclusion with regard to green bonds, clean transport and infrastructure is ahead by a considerable margin. This category accounts for EUR 72.7bn of the total green bond eligible investments amounting to EUR 267.8bn. The next biggest area is energy efficiency at EUR 71.3bn. Investments totalling EUR 61.5bn are planned for clean energy, followed by EUR 21.4bn for water and waste management. The other, no less important, categories share the remaining amount of EUR 41bn. Overall, a clear trend is emerging: Europe intends to become greener and more sustainable, especially regarding travel and transport. Unsurprisingly, one Member State is taking the lead here: of Italy's green bond eligible investments totalling EUR 74.8bn, almost 39% (EUR 28.9bn) is allocated to clean transport and infrastructure.

Conclusion and outlook

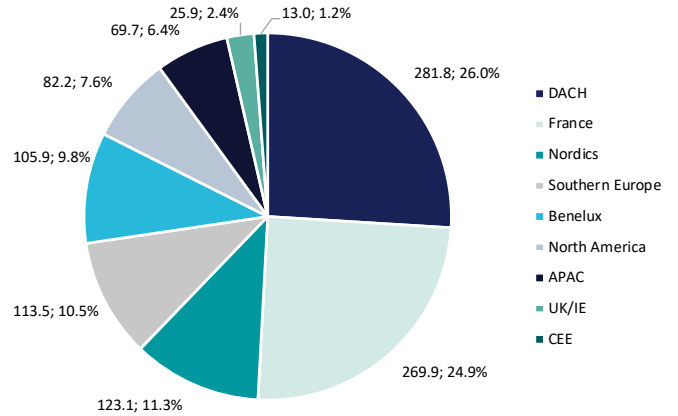
Without doubt, the NGEU programme with a volume in excess of EUR 800bn will go down in the history books. To better illustrate its size, the total amount surpasses the Marshall Plan of 1948 many times over. Similar to that plan – although this admittedly is a slightly awkward comparison – the focus of the NGEU programme is on economic recovery. While no cities are in ruins in the EU member states, the impacts of the COVID-19 pandemic and energy (price) crisis on national economies are undeniable. The EU has logically combined the necessary (economic recovery) with the beneficial (climate action and digital transformation). Fulfilling the terms of the Paris Agreement on climate change is a cross-border challenge. It is all the more desirable for the EU to steer investments into green and sustainable projects via its NGEU programme. This has also been accepted by the EU member states, and specified investment targets in respect of climate objectives and the digital transition are exceeded. Yet, we would have hoped for a higher figure when it comes to Germany's national recovery and resilience plan. Our readers in Germany are probably aware of plenty of situations and places in which an expansion of the digital or transport infrastructure is required. In terms of a couple of examples, just think of the need to digitise the systems of public authorities or the shocking moment when part of a bridge in Dresden collapsed in September last year. We doubt that the planned expenditure will be enough to implement adequate and above all cutting-edge infrastructure. With a new special fund worth hundreds of billions of euros, Germany is at least trying to end the investment backlog in this respect. In addition, we would like to commend the EU's transparency with regard to the use of proceeds, in particular. For this purpose, the body published the second [NGEU Green Bonds Allocation and Impact Report](#) in November 2024 with the aim of providing up-to-date information on the allocation of green bond proceeds as at the reference date of 01 August 2024 and presenting the impacts of the investments financed by means of green bonds. As a major and, in terms of volume, the most important issuer of (both traditional and green) bonds included in our coverage, this is certainly the right way to remain attractive to investors in the capital market.

Charts & Figures Covered Bonds

EUR benchmark volume by country (in EURbn)



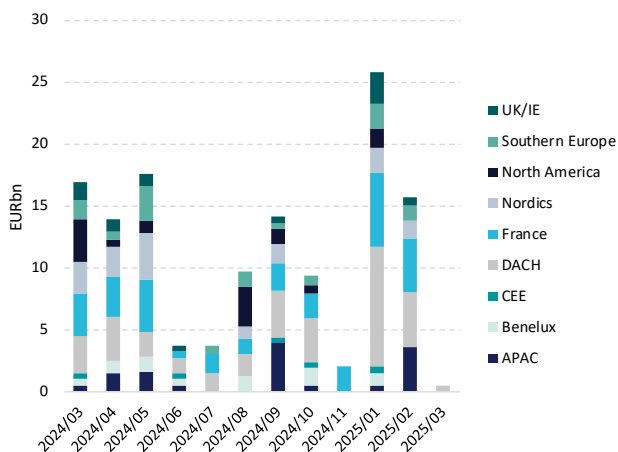
EUR benchmark volume by region (in EURbn)



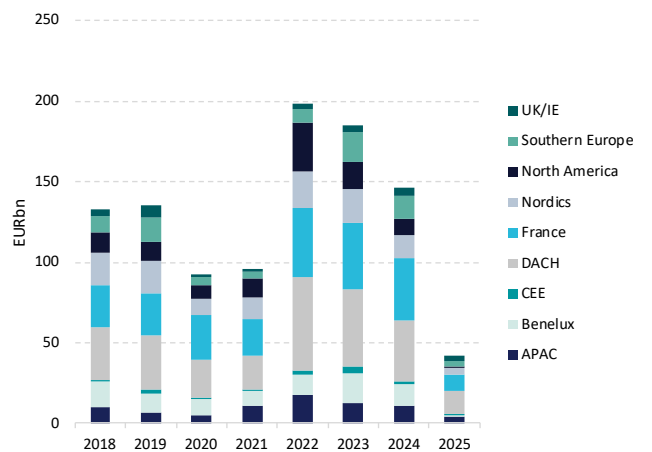
Top-10 jurisdictions

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	269.9	259	30	0.98	9.2	4.6	1.57
2	DE	219.5	306	48	0.66	7.7	3.8	1.62
3	CA	82.2	60	1	1.35	5.6	2.4	1.46
4	NL	81.7	82	3	0.93	10.5	5.6	1.40
5	AT	58.6	97	5	0.60	7.9	4.0	1.61
6	ES	58.1	48	6	1.07	10.7	3.3	2.19
7	IT	49.1	63	6	0.76	8.4	3.9	2.04
8	NO	47.3	57	12	0.83	7.2	3.3	1.20
9	FI	39.5	45	4	0.86	6.7	3.1	1.77
10	AU	34.9	34	0	1.03	7.1	4.0	1.92

EUR benchmark issue volume by month

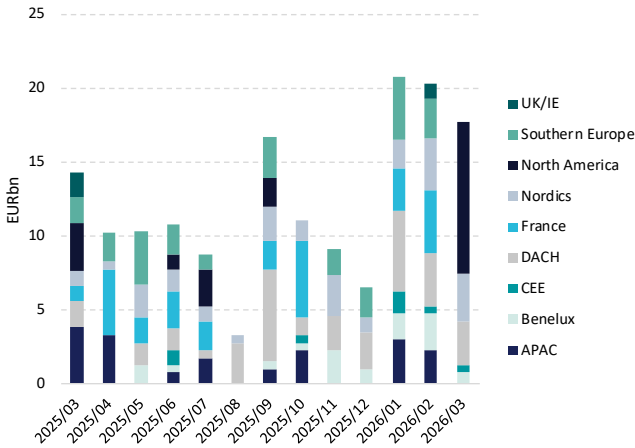


EUR benchmark issue volume by year

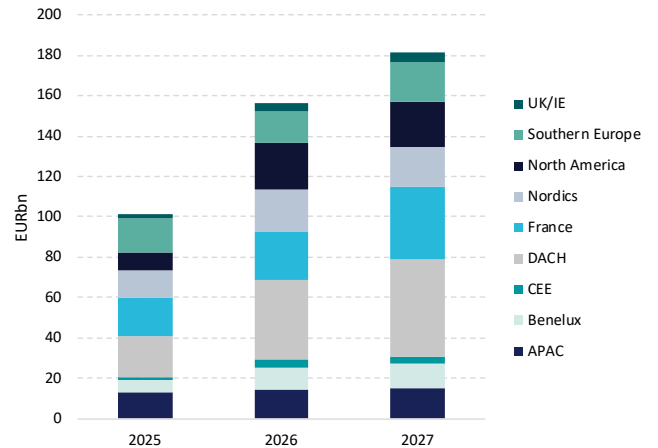


Source: Market data, Bloomberg, NORD/LB Floor Research

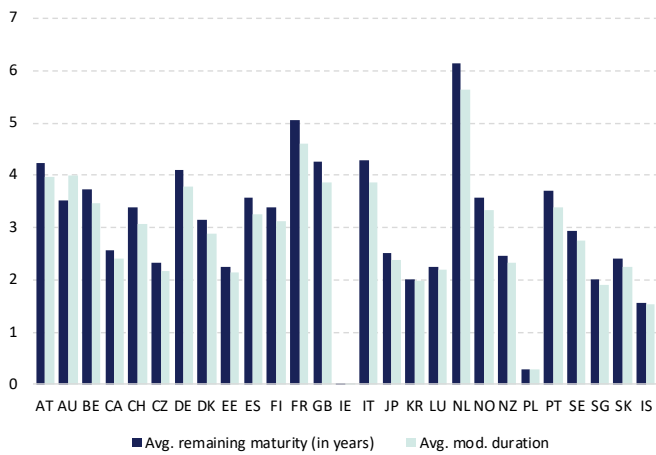
EUR benchmark maturities by month



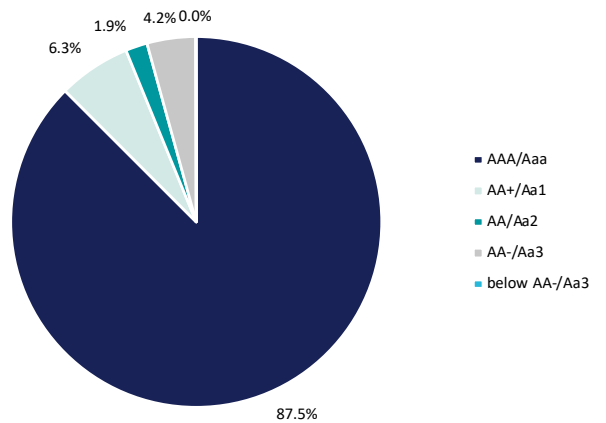
EUR benchmark maturities by year



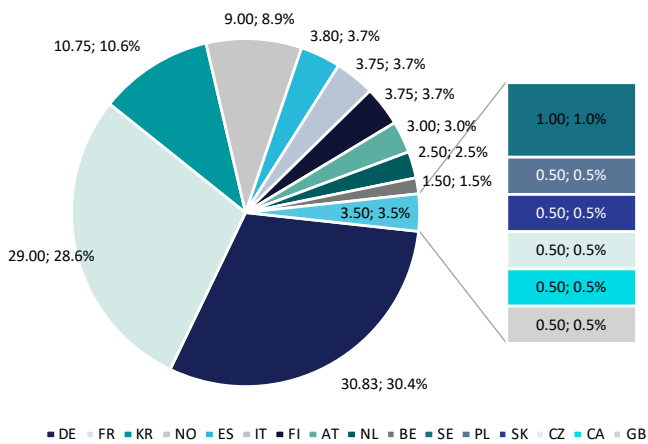
Modified duration and time to maturity by country



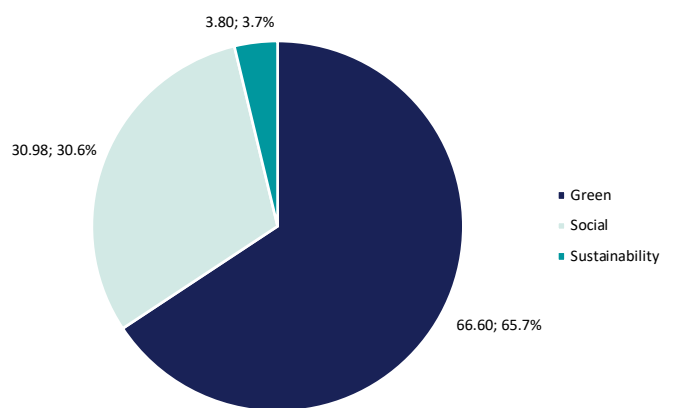
Rating distribution (volume weighted)



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

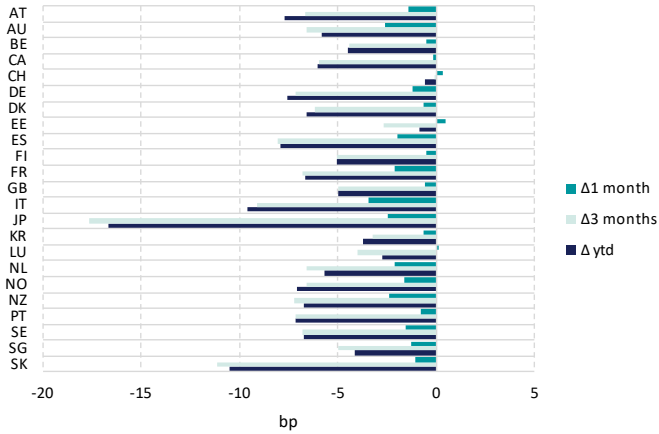


EUR benchmark volume (ESG) by type (in EURbn)

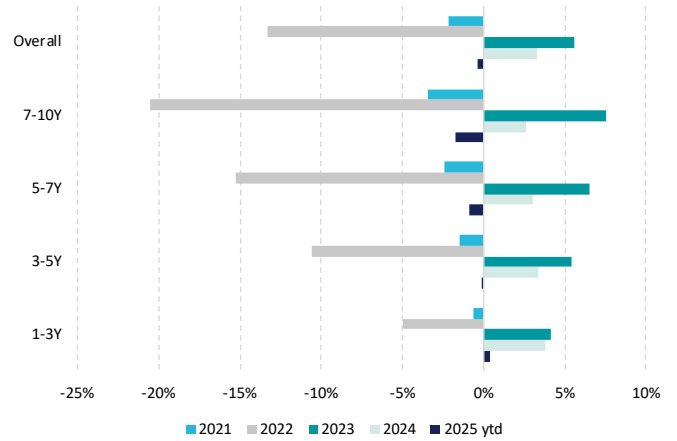


Source: Market data, Bloomberg, NORD/LB Floor Research

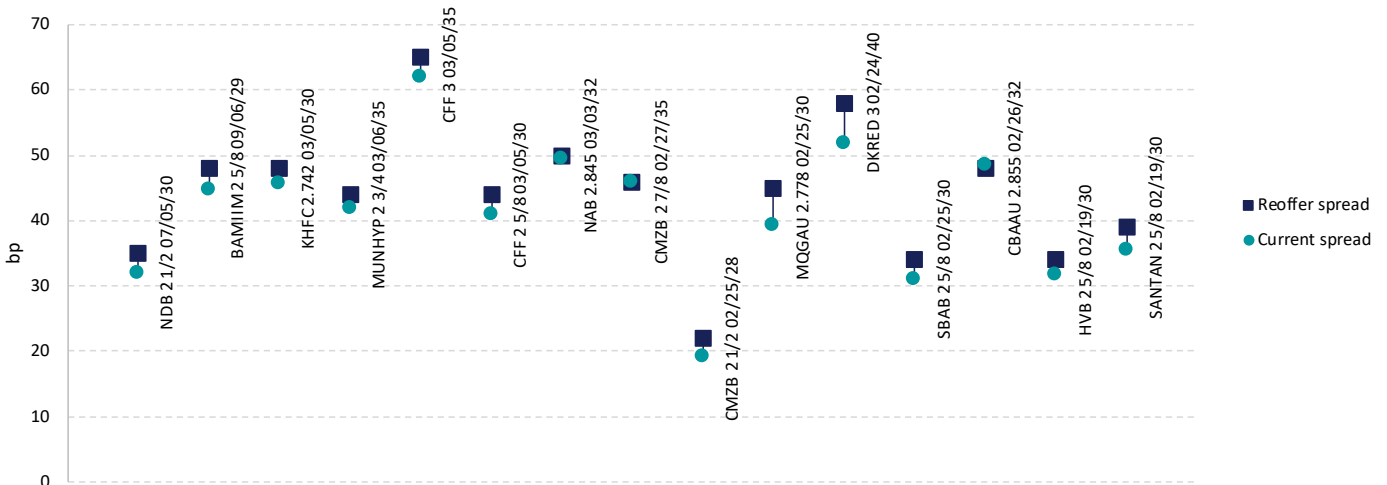
EUR benchmark emission pattern



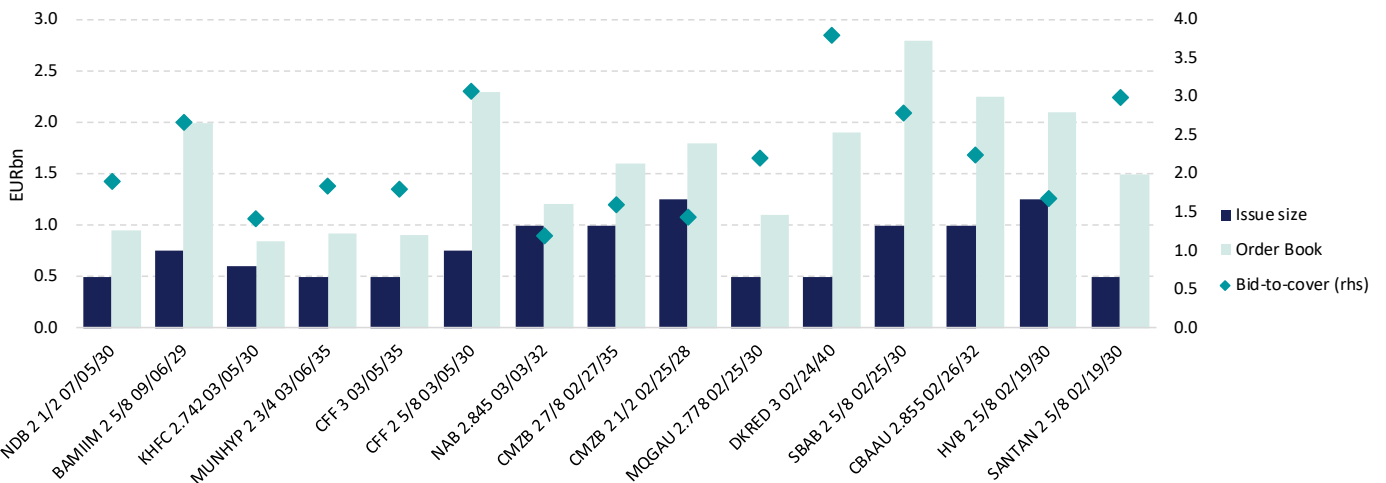
Covered bond performance (Total return)



Spread development (last 15 issues)

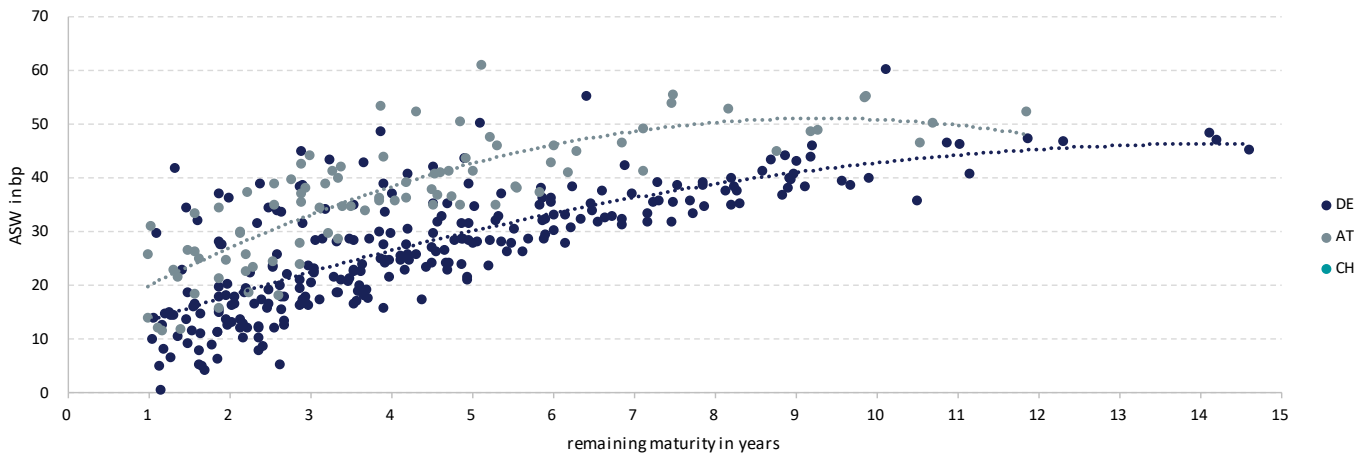


Order books (last 15 issues)

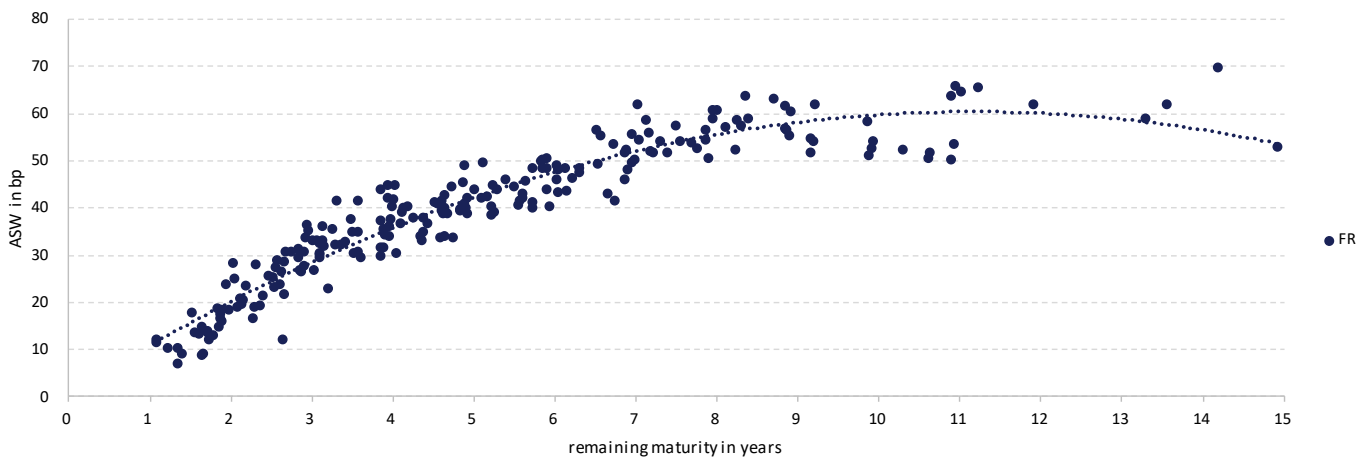


Spread overview¹

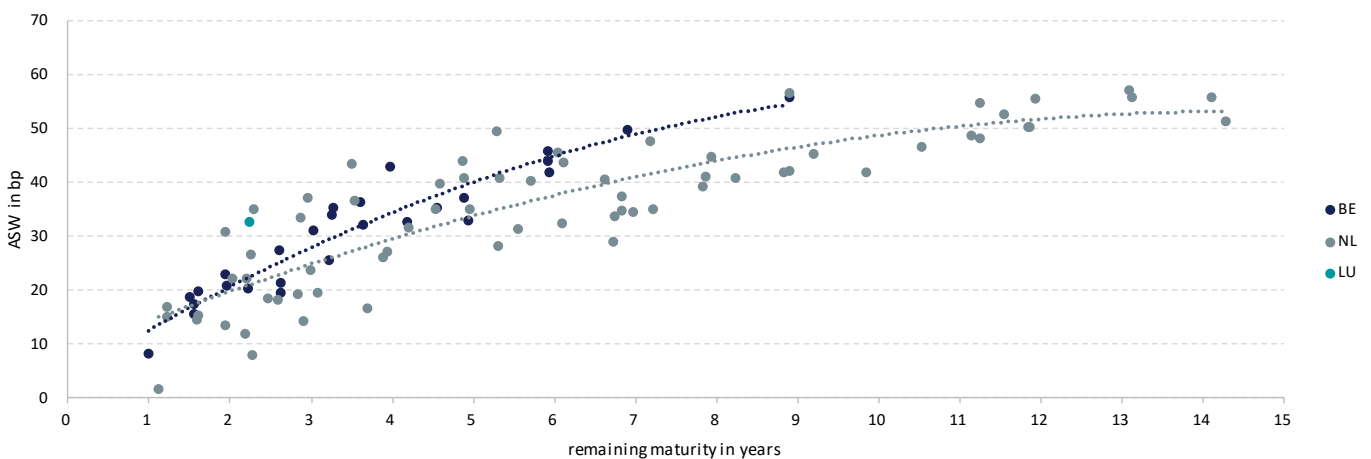
DACH 



France 

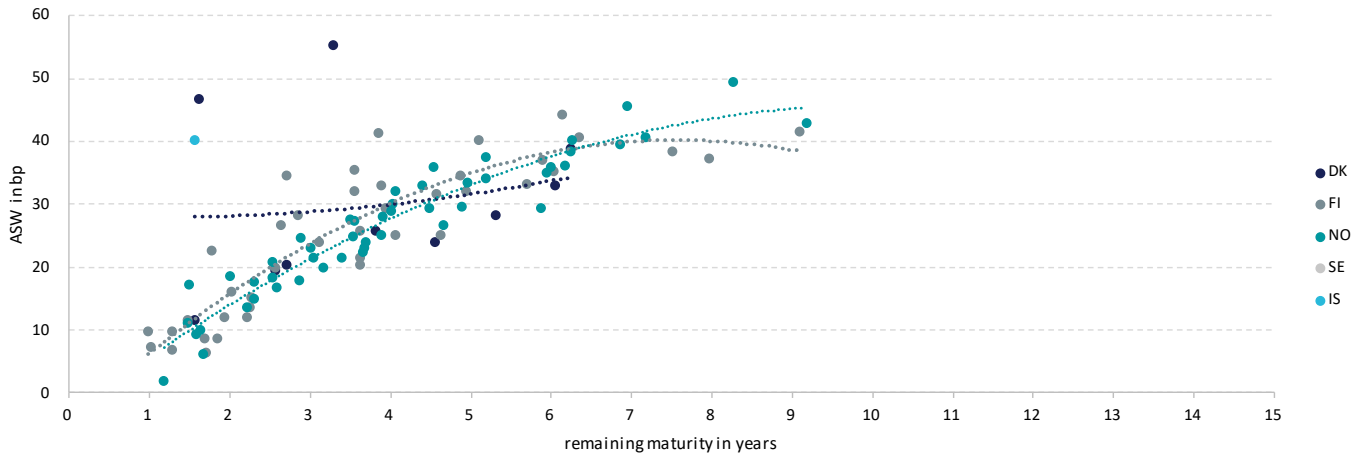


Benelux 

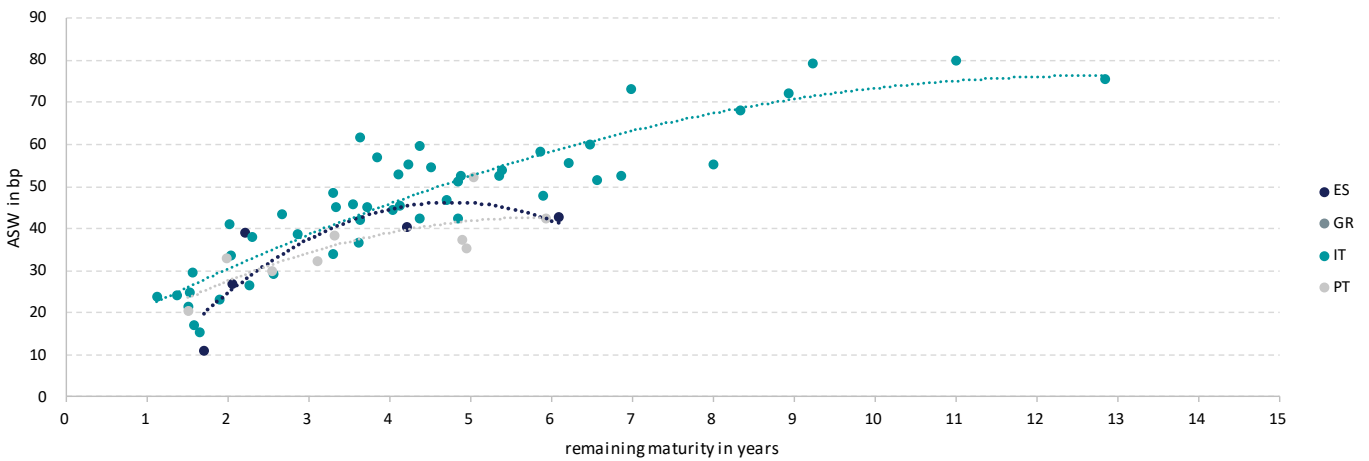


Source: Market data, Bloomberg, NORD/LB Floor Research ¹Time to maturity 1 ≤ y ≤ 15

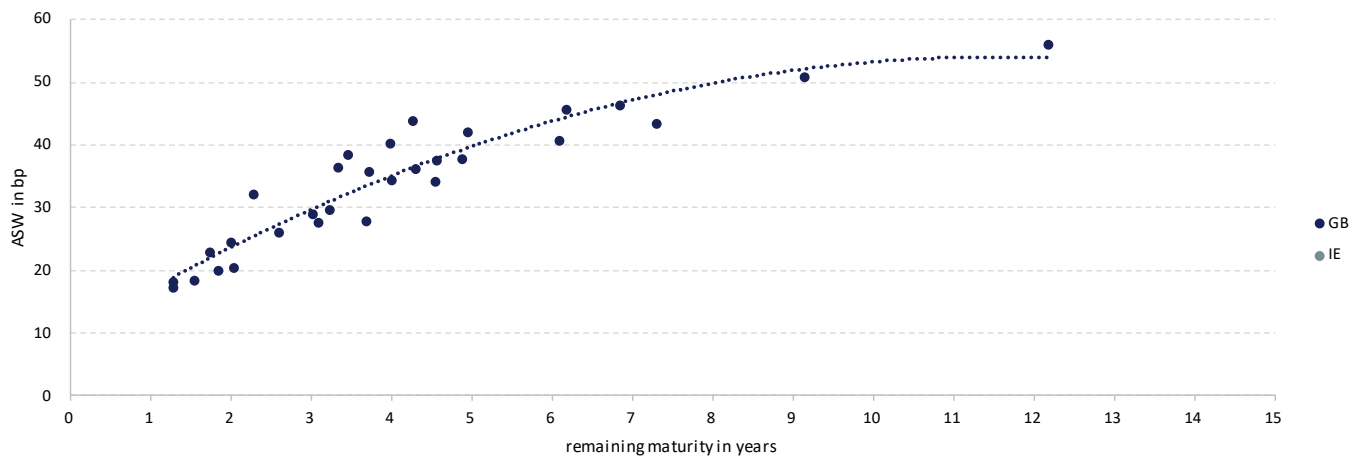
Nordics 



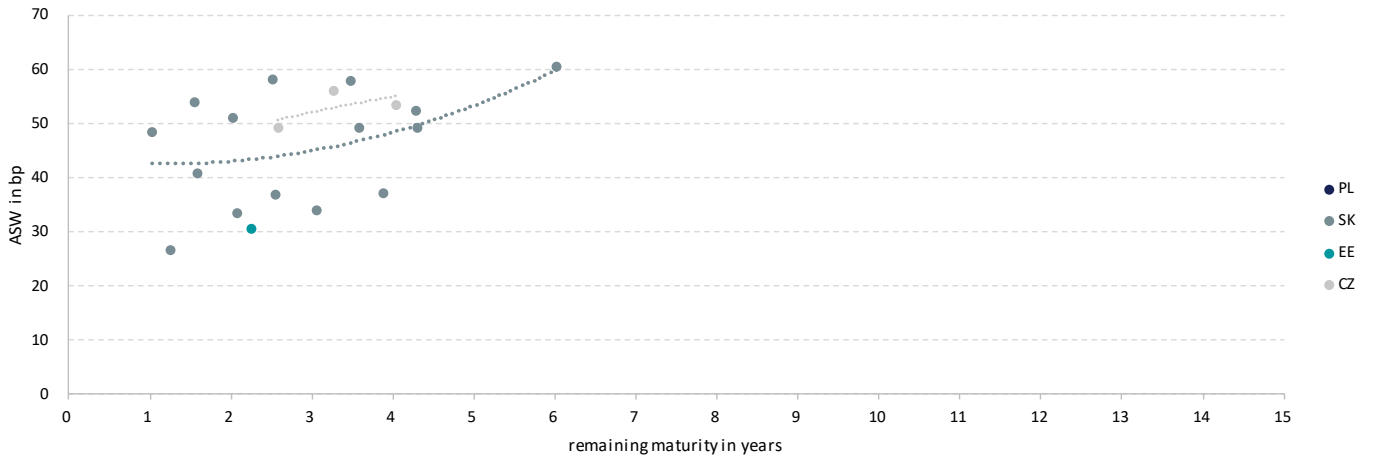
Southern Europe 



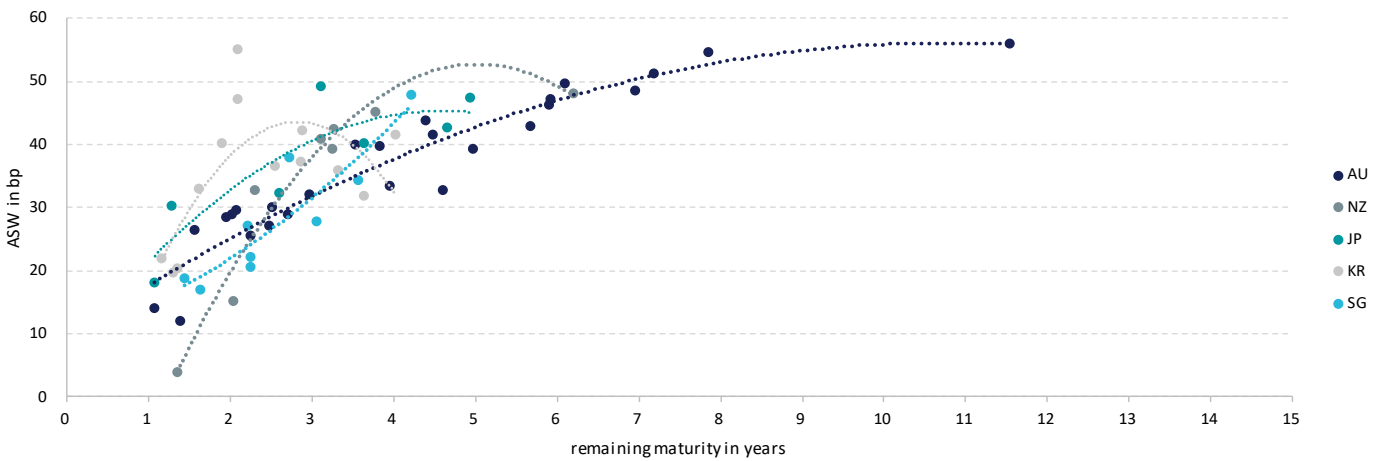
UK/IE 



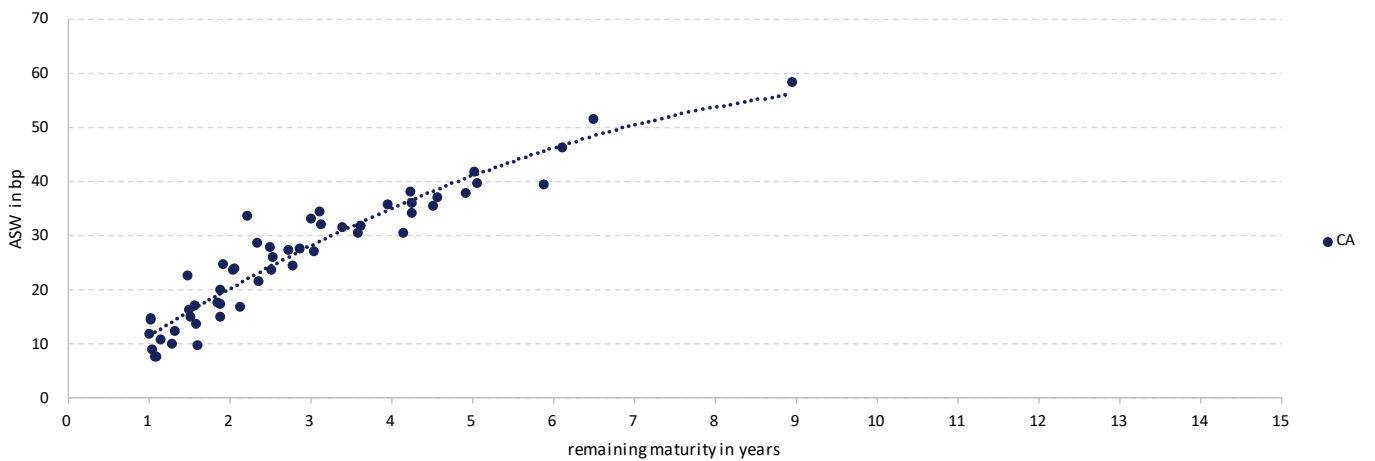
CEE 



APAC 



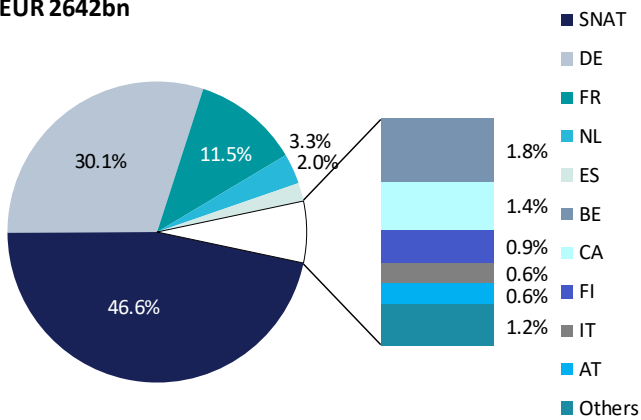
North America 



Charts & Figures SSA/Public Issuers

Outstanding volume (bmk)

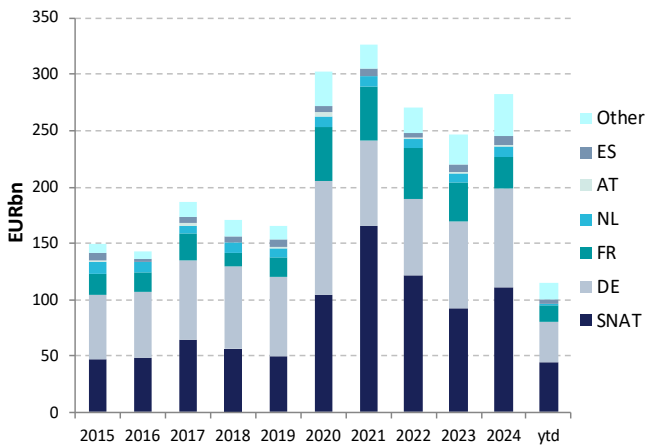
EUR 2642bn



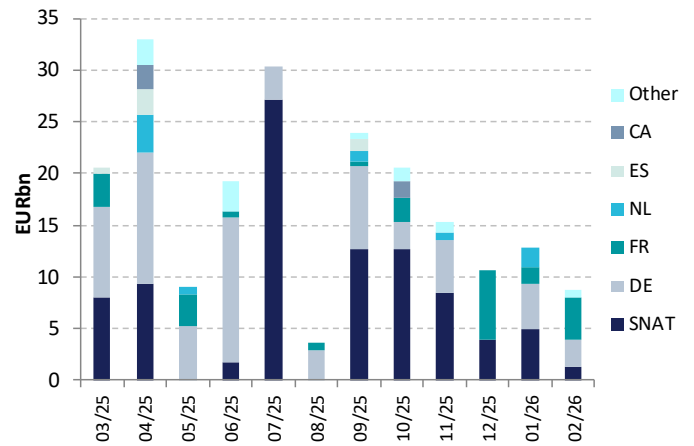
Top 10 countries (bmk)

Country	Vol. (EURbn)	No. of bonds	ØVol. (EURbn)	Vol. weight. ØMod. Dur.
SNAT	1,232.2	251	4.9	7.6
DE	793.8	595	1.3	6.0
FR	302.9	205	1.5	5.6
NL	86.0	68	1.3	6.1
ES	52.1	72	0.7	4.9
BE	48.3	49	1.0	9.7
CA	37.8	26	1.5	5.1
FI	24.6	26	0.9	4.3
IT	16.8	21	0.8	4.2
AT	16.0	21	0.8	4.6

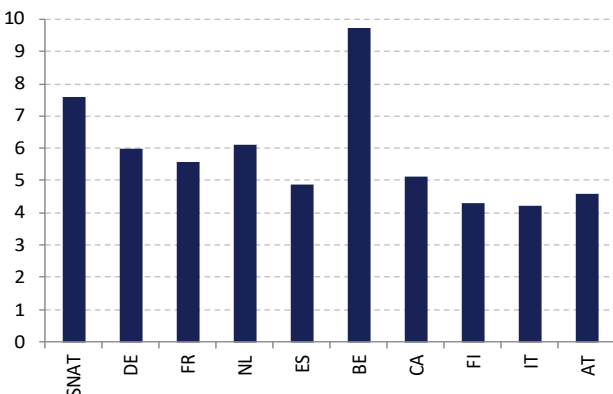
Issue volume by year (bmk)



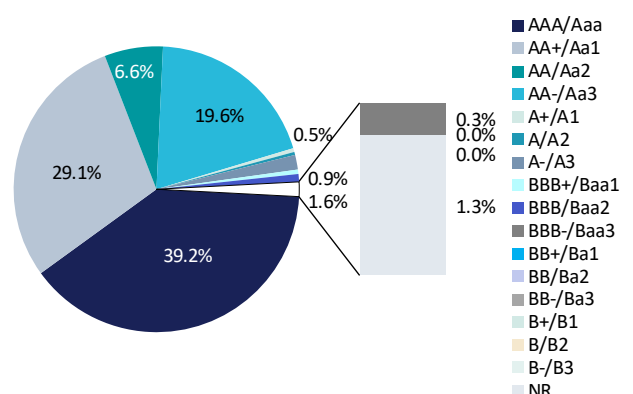
Maturities next 12 months (bmk)



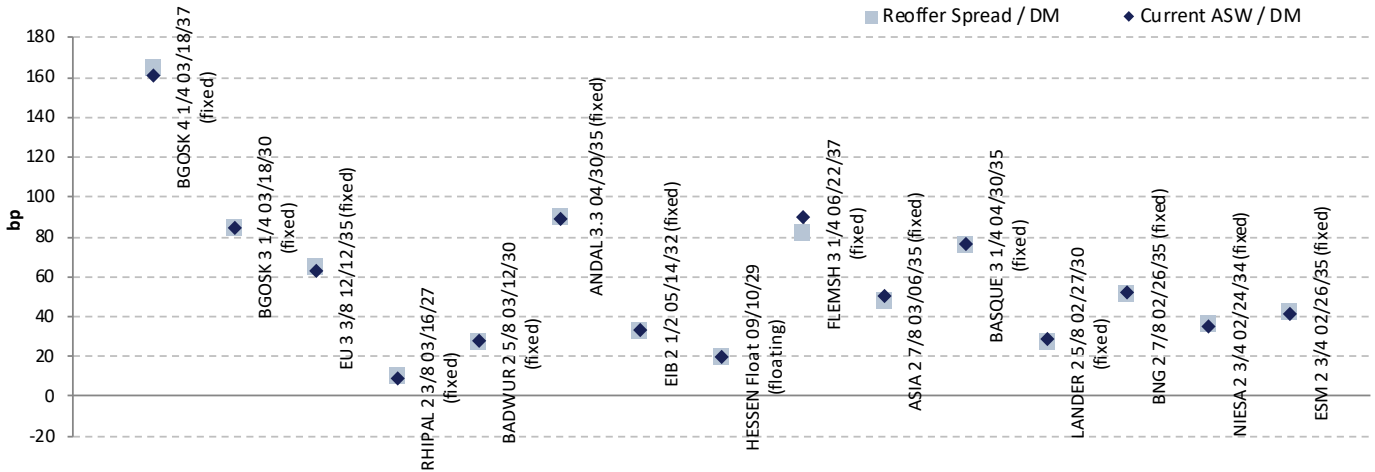
Avg. mod. duration by country (vol. weighted)



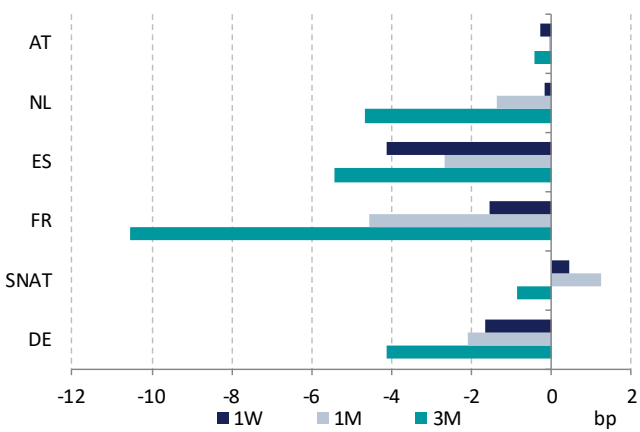
Rating distribution (vol. weighted)



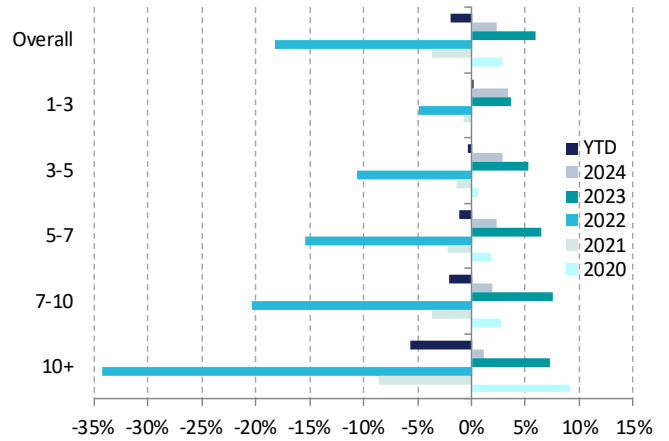
Spread development (last 15 issues)



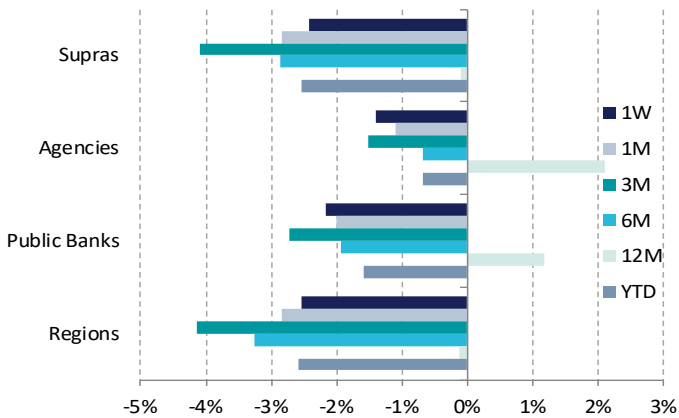
Spread development by country



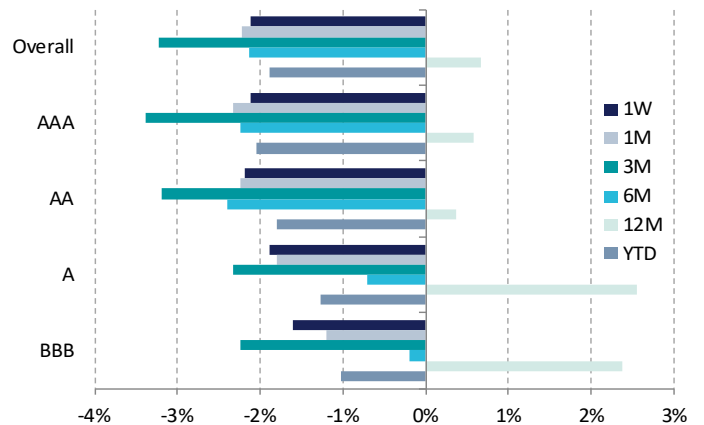
Performance (total return)



Performance (total return) by segments

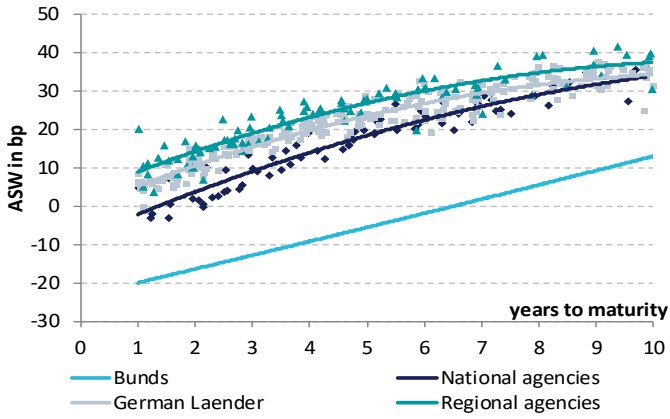


Performance (total return) by rating

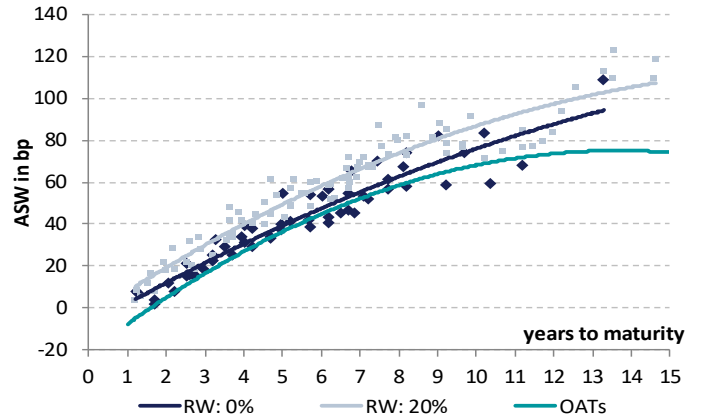


Source: Bloomberg, NORD/LB Floor Research

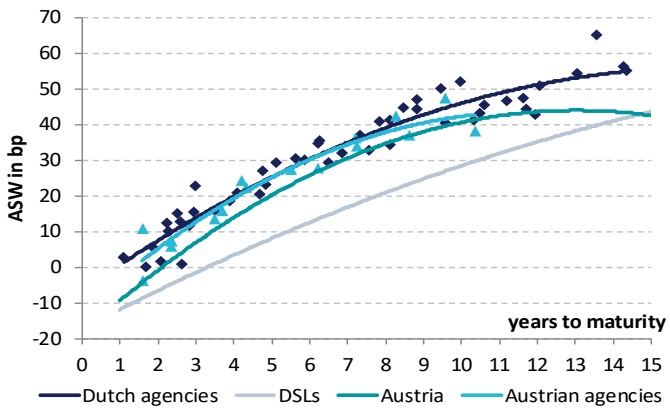
Germany (by segments)



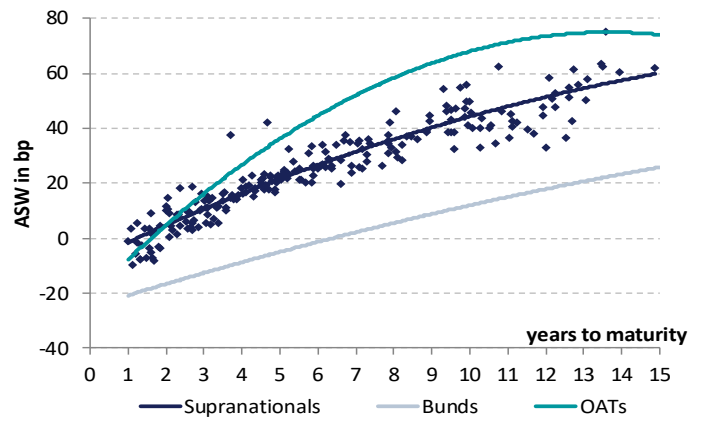
France (by risk weight)



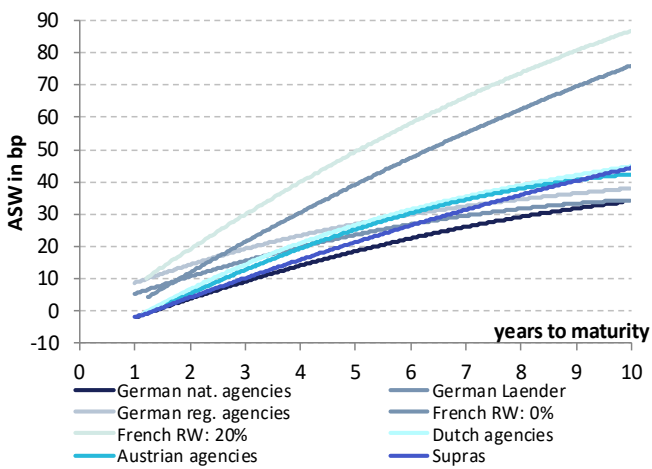
Netherlands & Austria



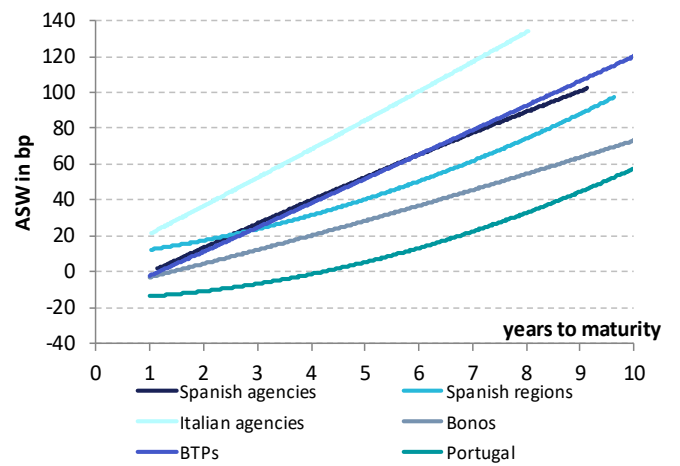
Supranationals



Core



Periphery



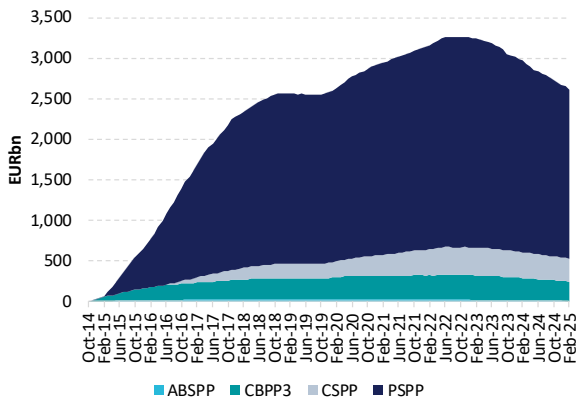
Source: Bloomberg, NORD/LB Floor Research

Charts & Figures

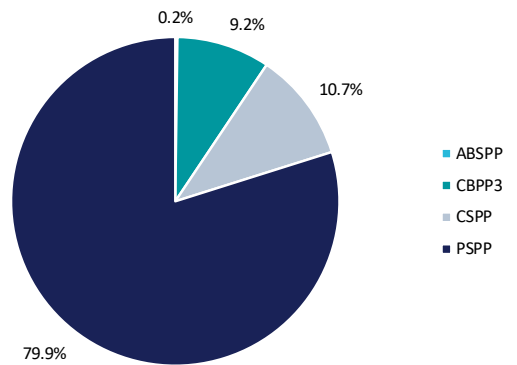
ECB tracker

Asset Purchase Programme (APP)

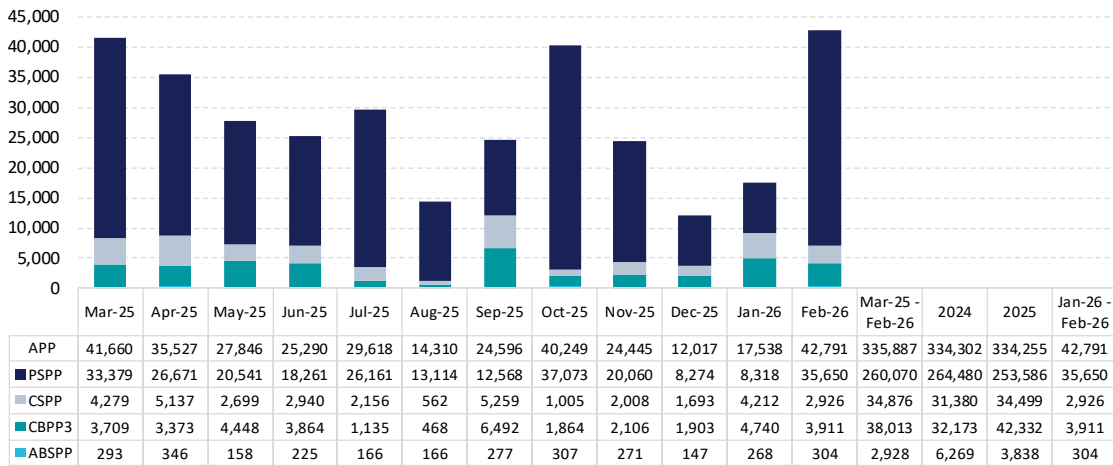
APP: Portfolio development



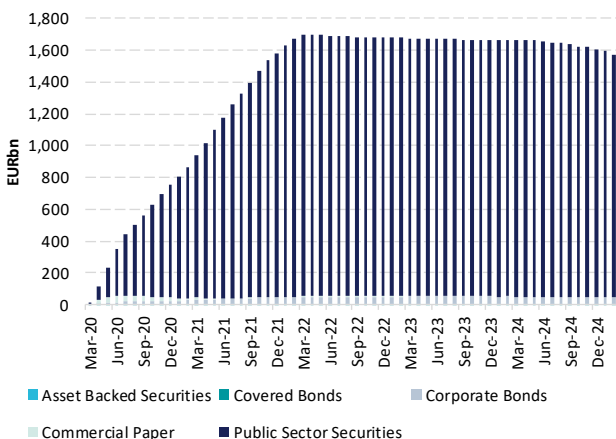
APP: Portfolio structure



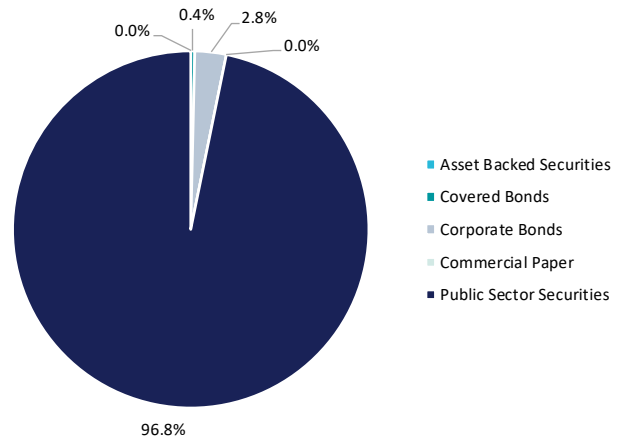
Expected monthly redemptions (in EURm)



PEPP: Portfolio development



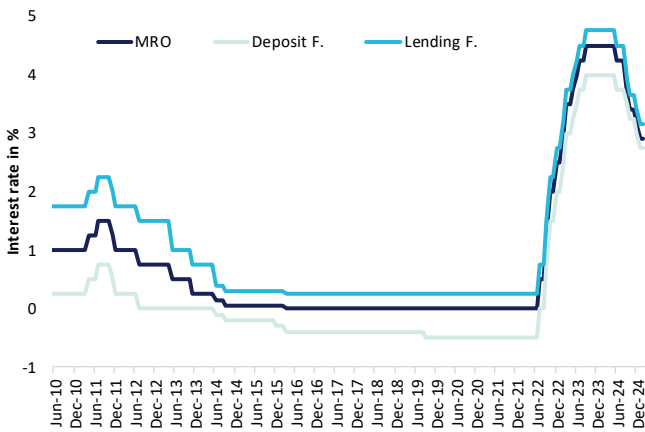
PEPP: Portfolio structure



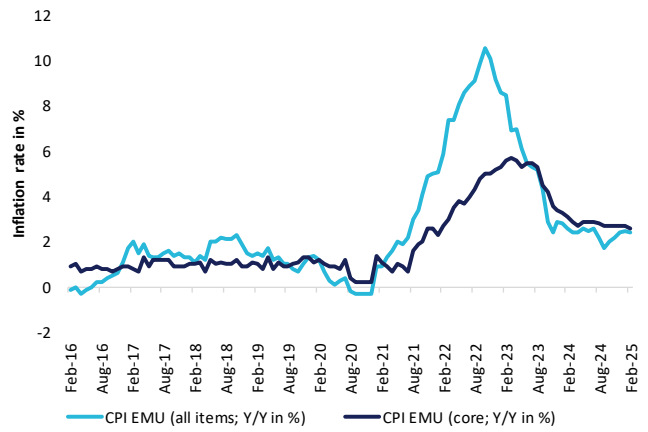
Charts & Figures

Cross Asset

ECB key interest rates



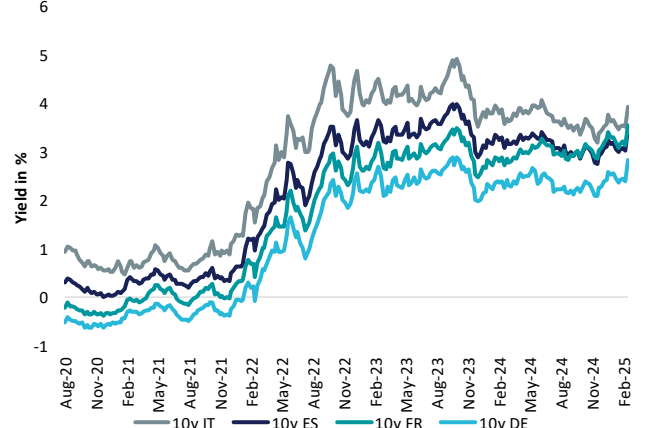
Inflation development in the euro area



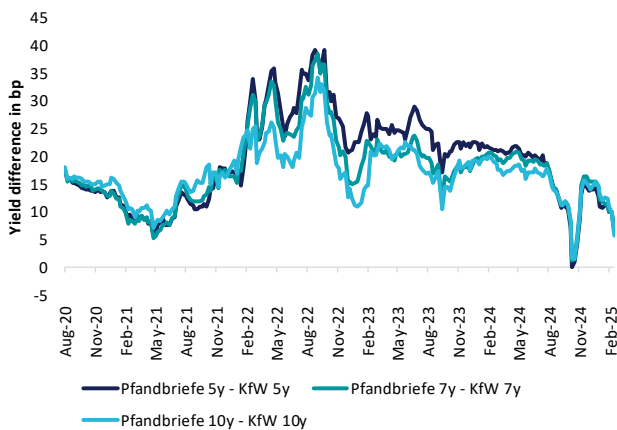
Bund-swap-spread



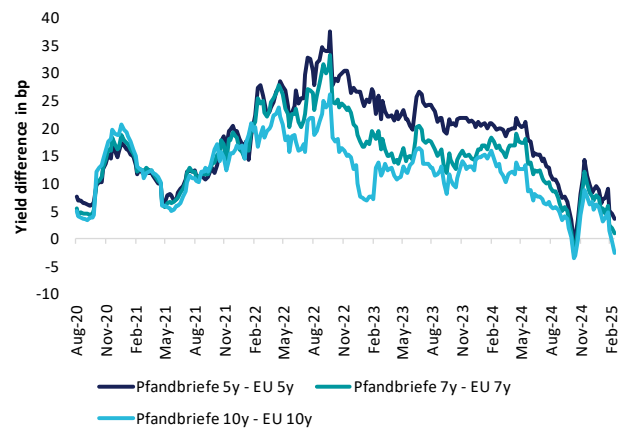
Selected yield developments (sovereigns)



Pfandbriefe vs. KfW



Pfandbriefe vs. EU



Appendix

Overview of latest Covered Bond & SSA View editions

Publication	Topics
09/2025 ♦ 05 March	<ul style="list-style-type: none"> Transparency requirements §28 PfandBG Teaser: Issuer Guide – Non-European Agencies 2025
08/2025 ♦ 26 February	<ul style="list-style-type: none"> Overseas Covered Bonds – A Brave New Spread World? Update: Joint Laender – Laender jumbos
07/2025 ♦ 19 February	<ul style="list-style-type: none"> An overview of the EUR sub-benchmark segment Export Development Canada – spotlight on EDC
06/2025 ♦ 12 February	<ul style="list-style-type: none"> Development of the German property market (vdi index) Occitania – spotlight on OCCTNE
05/2025 ♦ 05 February	<ul style="list-style-type: none"> Crelan Home Loan plans return to the covered bond market SSA January recap: record start to 2025
04/2025 ♦ 29 January	<ul style="list-style-type: none"> Cross Asset – ESG pilot project: First EU Green Bond in our coverage
03/2025 ♦ 22 January	<ul style="list-style-type: none"> Focus on the banking sector: EBA Risk Dashboard in Q3/2024 30th meeting of the Stability Council (December 2024)
02/2025 ♦ 15 January	<ul style="list-style-type: none"> The Moody's covered bond universe – an overview Review: EUR-ESG benchmarks 2024 in the SSA segment
01/2025 ♦ 08 January	<ul style="list-style-type: none"> Annual review of 2024 – Covered Bonds SSA: Annual review of 2024
42/2024 ♦ 18 December	<ul style="list-style-type: none"> A regulatory look at the iBoxx EUR Covered Teaser: Beyond Bundeslaender – Belgium
41/2024 ♦ 11 December	<ul style="list-style-type: none"> Focus on France: Covered bond view of Groupe CCF Teaser: Issuer Guide – French Agencies 2024
40/2024 ♦ 04 December	<ul style="list-style-type: none"> Our outlook for the covered bond market in 2025 SSA Outlook 2025: Risk premiums are back in town
39/2024 ♦ 27 November	<ul style="list-style-type: none"> What's going on outside of the EUR benchmark segment? Teaser: Issuer Guide – Down Under 2024
38/2024 ♦ 20 November	<ul style="list-style-type: none"> Transparency requirements §28 PfandBG Q3/2024 ECB repo collateral rules and their implications for Suprationals & Agencies
37/2024 ♦ 13 November	<ul style="list-style-type: none"> Development of German property market (vdp index) Auvergne-Rhône-Alpes Region – spotlight on REGRHO
36/2024 ♦ 06 November	<ul style="list-style-type: none"> ESG covered bonds: Benchmark segment on a growth trajectory Current LCR classification for our SSA coverage
35/2024 ♦ 30 October	<ul style="list-style-type: none"> Maturities the future driver in the primary market? German-speaking Community of Belgium – spotlight on DGBE
34/2024 ♦ 23 October	<ul style="list-style-type: none"> A relative value investigation of covered bonds Current risk weight of suprationals & agencies

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 2024](#)

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

[Transparency requirements §28 PfandBG Q4/2024](#) (quarterly update)

[Transparency requirements §28 PfandBG Q4/2024 Sparkassen](#) (quarterly update)

SSA/Public Issuers:

[Issuer Guide – German Laender 2024](#)

[Issuer Guide – Canadian Provinces & Territories 2024](#)

[Issuer Guide – Down Under 2024](#)

[Issuer Guide – European Supranationals 2024](#)

[Issuer Guide – Non-European Supranationals \(MDBs\) 2024](#)

[Issuer Guide – German Agencies 2024](#)

[Issuer Guide – French Agencies 2024](#)

[Issuer Guide – Nordic Agencies 2024](#)

[Issuer Guide – Dutch Agencies 2024](#)

[Issuer Guide – Austrian Agencies 2024](#)

[Beyond Bundeslaender: Belgium](#)

[Beyond Bundeslaender: Greater Paris \(IDF/VDP\)](#)

[Beyond Bundeslaender: Spanish regions](#)

Fixed Income Specials:

[ESG-Update 2024](#)

[ECB interest rate cut in the wake of Rambo-Zambo bond packages](#)

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



Alexander Grenner

Covered Bonds/Banks

+49 157 851 65070

alexander.grenner@nordlb.de



Dr Norman Rudschuck, ClIA

SSA/Public Issuers

+49 152 090 24094

norman.rudschuck@nordlb.de



Lukas-Finn Frese

SSA/Public Issuers

+49 176 152 89759

lukas-finn.frese@nordlb.de



Tobias Cordes

SSA/Public Issuers

+49 162 760 6673

tobias.cordes@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

Origination & Syndicate

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

Treasury

Liquidity Management/Repos	+49 511 9818-9620
	+49 511 9818-9650

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

Sales Wholesale Customers

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

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 Finanzdienstleistungsaufsicht; 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: 12 March 2025 (08:53)