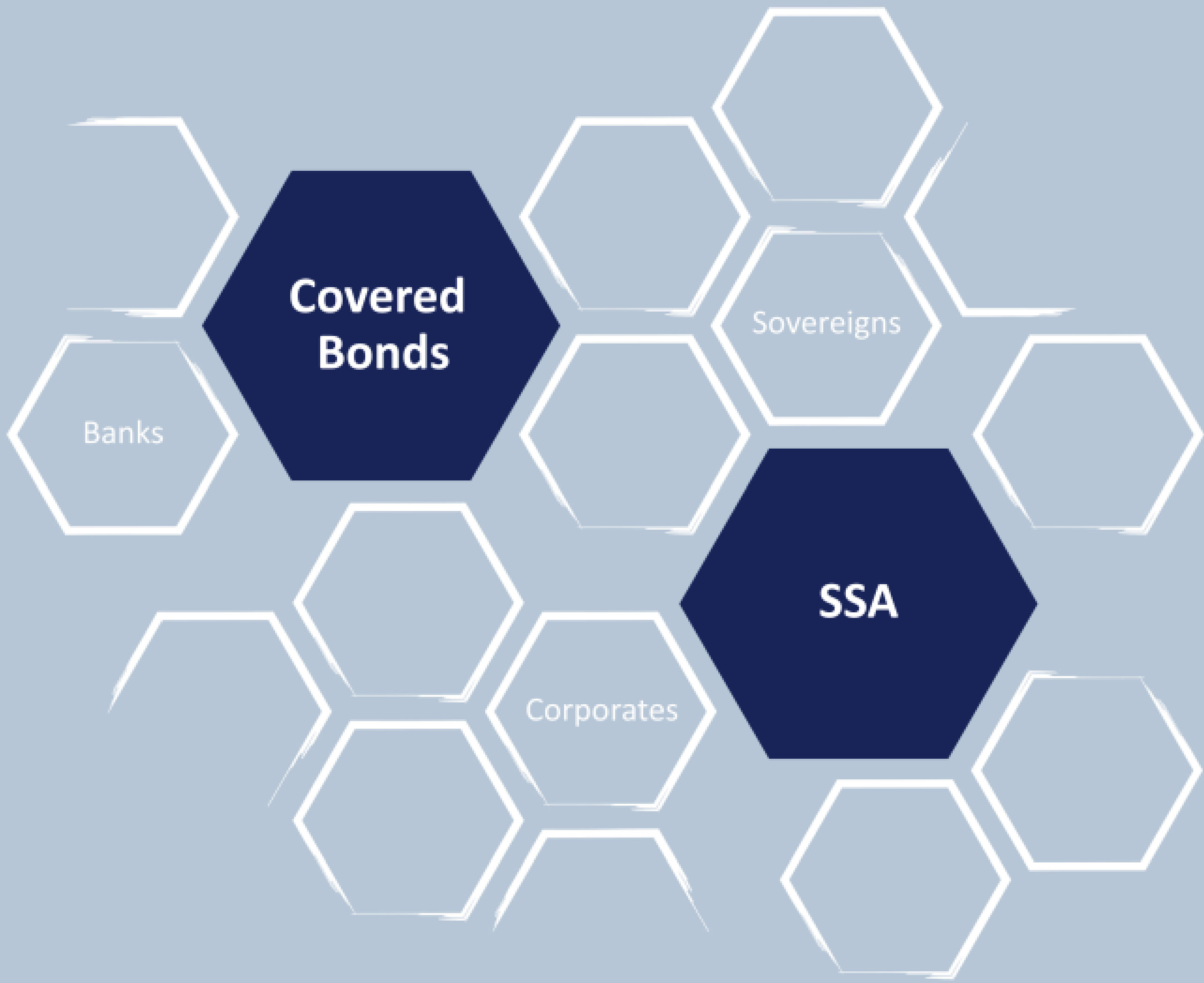

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

9 February 2022 ♦ 05/2022

Investment strategy recommendation and marketing communication
(see disclaimer on the last pages)

Agenda

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Market overview
Covered Bonds

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Primary market: ECB course could see new issue premiums climb moving forwards

Over the past five trading days, not a single issuer was present on the primary market with EUR benchmark activity. In this context, increased volatility on the financial markets following the most recent ECB meeting must also be seen as a potential explanation for this. In actual fact, we have now entered a phase of uncertainty with regard to the future monetary policy direction of the eurozone. We have outlined potential scenarios in relation to the future course of the ECB purchase programmes as part of our Cross Asset focus article in this week's publication. For example, on the covered bond primary market, a dynamic reduction in net purchases could in particular lead to a primary market order share on the part of the Eurosystem falling to well below 40% for CBPP3-eligible deals. For this reason, we see an increasing likelihood of rising new issue premiums – especially in the maturity segment of more than ten years. The ECB strategy with regard to the specific reinvestment of maturities under the CBPP3 could also become more important. As at year-end 2021, the total programme volume amounted to EUR 298.7bn, before falling slightly to its present level of EUR 295.1bn (decline over the past four weeks equals EUR -3.6bn in net terms). In this context, the ECB could keep its proverbial powder dry not only in terms of covered bonds, but also in connection with activities in other asset classes too. In the case of the latter, this would indicate lower demand for covered bonds and a certain degree of support from spreads.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG

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

Green covered bonds: inaugural deal from Spain

At the start of the new trading week, we were delighted to hear about the first ESG deal of 2022. The issuer in question here was Caja Rural de Navarra (CRUNAV), whose green covered bond offered the prospect of the first green EUR benchmark from Spain (EUR 500m; WNG; 7y). The four bonds falling within the ESG universe from Spain so far have either been social bonds (1x deal from Kutxabank) or sustainability bonds (2x CRUNAV, 1x Eurocaja Rural). This inaugural green covered bond, based on the Sustainability Bond Framework updated in December 2021, was preceded by corresponding investment meetings for which CRUNAV had mandated a consortium of banks. The Second Party Opinion provided by Sustainalytics confirms that the framework aligns with sustainability efforts of its own institution as well as with the seven UN Sustainable Development Goals (SDGs) that it seeks to address. Moreover, Sustainalytics believes that the four core components of the ICMA Green Bond Principles (2021) and Social Bond Principles (2021) have been satisfied. With regard to the EU taxonomy and the EU Green Bond Standard (EU GBS), the selection of suitable assets is carried out in accordance with the Technical Screening Criteria (TSC) of the taxonomy and in accordance with the current version of the EU GBS. At present, CRUNAV has three outstanding EUR benchmarks with a total volume of EUR 1.6bn, whereby the next maturity is set to fall due on 16 March 2022 (CRUNAV 0 1/2 03/16/22; EUR 500m).

Fitch offers Pfandbriefe assessment

Fitch Ratings recently published an assessment on the market for Pfandbriefe. In particular, the rating agency's comments on 3 February focused on potential developments on the property market and the corresponding implications for mortgage Pfandbriefe. Accordingly, the scenario of a pronounced fall in property prices or a price correction would not have a major impact on mortgage Pfandbriefe. As justification for this stance, Fitch cites the conservative standards with regard to determining mortgage lending values as well as the diversified structure of the cover pools. The varying maturity structures selected for cover pool financings so far also contribute to risk diversification in this regard. In terms of the measures adopted for the implementation of the covered bond directive, Fitch summarizes that these have also led to significant improvements in connection with the parameters relevant to the rating agency. This also applies, for example, as a result of the newly introduced option to postpone Pfandbriefe maturities defined in the PfandBG.

European Mortgage Federation: further growth in volume of mortgage loans across Europe in Q3 2021

It was only at the end of January that the European Mortgage Federation (EMF) presented its latest Quarterly Review covering the developments on European mortgage markets. In the Quarterly Review for the third quarter of 2021, the high growth dynamic on European markets for residential mortgages was once again confirmed. This applies to both the volume of outstanding mortgage loans (+6.6% Y/Y) and in relation to gross lending (+17% Y/Y). In our view, the EMF data basis offers the added value of broad coverage for both the European property financing markets and the residential property market as a whole. For example, according to the EMF, its statistics include 95% of the outstanding volume of mortgage loans in the EU27 plus the UK. In summary, the EMF experts conclude that in terms of the dynamics in play on the European housing markets, price increases can be observed for all jurisdictions included in the coverage. While growth on the supply side was seen in some European economies, significant shortages continue to be observed in other countries.

Moody's: Focus on the Canadian property finance markets

As part of a recent Sector Profile covering the Canadian property markets, the rating agency Moody's also outlined a direct link to the country's covered bond programmes. As a result of low or declining mortgage rates in 2021, borrowers tended to enter into longer fixed interest rate agreements. At the same time, rising property prices had a positive impact on the LTV ratios derived on the basis of current market prices. For the cover pools of Canadian programmes, declining average loan interest rates and rising average maturities can accordingly be observed across 2021. As a consequence of the price development seen on Canadian property markets, the indexed LTV ratios show a downward trend on average in the cover pools, whereas the original LTV ratios remained constant. The latter aspect can also be regarded as a consequence of prudent lending standards. Overall, this information is consistent with the high credit quality of Canadian covered bonds. In the EUR benchmark segment, Canadian issuers stood out with a spate of activity early on in the new year. As such, Canada accounts for a total of EUR 7.75bn of the volume of EUR 28.50bn issued in the form of EUR benchmarks so far in 2022.

Canada: EUR sub-benchmark segment issuer Equitable Bank seeks growth on domestic market

In August of last year, Equitable Bank from Canada enhanced the EUR sub-benchmark segment by becoming the first issuer from this jurisdiction to tap this market and successfully issued a covered bond worth EUR 350m (EQBCN 0.01 09/16/24). At the start of this trading week, the Canadian bank then publicly communicated that it was pursuing a takeover deal of Concentra Bank. The transaction is set to be finalised in the second half of 2022 and is still subject to the usual approvals required from the relevant authorities. According to information from Equitable Bank, this merger will lead to an overall expansion in the range of services offered in addition to boosting the financial power of the newly formed bank. Following the merger, Equitable Bank is likely, according to information from the bank itself, to become the seventh-largest independent Canadian bank by assets in addition to serving more than 5 million domestic customers on both a direct and indirect basis. In terms of its own funding, the bank has also identified opportunities related to an expansion of covered bond refinancing activities. Although a benchmark-size deal in EUR might not necessarily be the direct result here, for us this does at least represent confirmation of the path taken by Equitable Bank in the EUR sub-benchmark segment so far.

Moody's: New mortgage loan business for 2021 at major Swedish banks below respective market shares in percentage terms

The rating agency Moody's analysed developments in mortgage lending on the Swedish banking market as part of a Sector Comment published at the end of January. In this analysis, Moody's determined that the share of new mortgage lending attributable to the top Swedish banks has recently declined versus the share for their non-bank competitors. Sweden's "big four" banks – Swedbank, Handelsbanken, SEB and Nordea – accounted for a joint share of 64% of net new mortgage lending in 2021. Compared with their market share of 73% in the overall outstanding volume of mortgage loans in Sweden in the previous year, this represents a significant decline. However, net new mortgage lending as a whole has increased in comparison with 2020, when the "big four" claimed a joint share of just 61%. Moody's also takes the view that the market share for the major banks will continue to shrink in the future, with competition in the shape of medium-sized banks, mortgage banks and alternative investment funds set to become even fiercer, although the rating agency does expect this process to be gradual. While the net new lending volume attributable to SEB and Nordea in 2021 slightly exceeded their respective shares of the outstanding total loan volume in the prior year, the values for Swedbank and Handelsbanken lagged well behind. It was a similar story at Danske Bank. Conversely, impressive growth of +43% year on year was recorded in the loan books for mortgage banks and alternative investment funds. At present, it is still too early to make out a distinct trend for covered bonds from this situation, although we also take the view that these developments could influence covered bond issuance activity over the medium to long term. At the moment, our coverage includes five issuers: LF Bank/LF Hypotek, SBAB/SCBC, SEB, Svenska Handelsbanken, Stadshypotek and Swedbank. In 2021, a total of three Swedish issuers – Stadshypotek, LF Hypotek and SCBC – approached investors in the EUR benchmark segment (volume: EUR 2.5bn). For 2022, we are anticipating primary market supply of EUR 3bn from this Nordic jurisdiction. However, this volume will be offset by maturities in the amount of EUR 5bn, in turn producing a negative net supply in the order of EUR -2bn overall.

Market overview SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

Our take on last week's ECB meeting

As expected, the ECB did not make any concrete changes to its monetary policy direction at the first meeting of 2022. In December, the ECB resolved to end the emergency PEPP programme in March, while at the same time announcing a temporary increase in the monthly purchase amount under the APP for Q2 and Q3 2022. There were no adjustments to this, and the key interest rates as well as the forward guidance also remained unchanged. According to our chief economist, the main focus of financial market participants was on how the ECB views the ongoing inflationary pressure in the Eurozone. Contrary to expectations, the annual HICP rate climbed to a record 5.1% Y/Y in January. Although this was largely due to the massive energy price shock, the significant rebound in the core rate that was actually expected did not materialise due to favourable base effects. Moreover, the risk of second-round effects should not be underestimated. Furthermore, the key arguments put forward by the doves on the ECB's Governing Council (e.g. the effect of the German value added tax), which have also been used in recent months to drive the narrative of a transitory inflationary spike, have now gone. ECB President Christine Lagarde said at the press conference that inflation data for January had provided another upside surprise. She said that there had been unanimous concern around the table of the Governing Council about inflation numbers, and that the Council sees the risks on the upside. Nevertheless, there had also been reservations at the meeting about proceeding too quickly. This points to the importance of the March meeting, which we would now even describe as crucial, when new inflation projections by Eurosystem experts will also be published. Above all, the forecast for 2022 is again likely to be revised upwards significantly, as it was in December. In light of this, even the most stubborn doves on the ECB's Governing Council will find it increasingly difficult to maintain the previous narrative of a transitory surge in inflation. The ECB will adjust its communication in March and set the stage for a rate hike more quickly. Thus, prior to an initial interest rate hike, all net bond purchases must first be discontinued (sequencing), which brings the end of net APP purchases into focus as the next logical step. The originally planned long flanking phase for the PEPP phase-out will therefore certainly not be sustainable. Perhaps the most important message of the meeting lay not in what the ECB President said, but rather in what she didn't say. Despite several requests, she did not repeat her previous mantra, according to which a rate hike was still very unlikely in 2022, instead focusing clearly on acting in accordance with the data. In doing so, she has ultimately opened the door for an initial rate hike before the end of the year, and the markets are pricing this in. After the PEPP, the next logical step should be to end net APP purchases. It is precisely this topic that we want to address in today's Cross Asset article with a scenario analysis of how and whether the ECB can still come out of this verbally clumsy preparation for a rate hike without losing face. After so many years of dealing with crises, the ECB appears to have forgotten how to communicate.

KfW business volume no longer record-breaking, but still exceptional

According to a press release, KfW's promotional business volume of EUR 107bn in 2021 remained at a high level (record year 2020: EUR 135.3bn; 2019: EUR 77.3bn), but was down on the crisis year 2020 (-21%). Weakened demand for coronavirus aid due to the end of the lockdown caused the decrease in commitments compared with the prior-year period. "KfW had an exceptional promotional year in 2021. We are seeing strong demand in the areas of climate change and the environment and, fortunately, a decline in demand for coronavirus aid. However, the evolution and impact of the pandemic are still associated with risks. This is why KfW will continue to support the economy and society in this area too," said Stefan Wintels, Chief Executive Officer of KfW Group. In Germany alone, KfW made around 1.3m individual commitments for a volume of EUR 82.9bn (2020: EUR 106.4bn; 2019: EUR 43.4bn), which made a major contribution to stabilising the German economy. Commitments for domestic coronavirus aid programmes stood at EUR 10.1bn, well below the level of EUR 46.9bn recorded in the crisis year 2020. For us, KfW's "Financial Markets" business unit is naturally of greatest interest. It supported climate change mitigation and environmental protection by investing EUR 527m in green bonds. For 2022, KfW is again planning to make a new investment of EUR 400m in connection with its green bond portfolio. To fund its promotional business, KfW raised funds of EUR 82.6bn in the international capital markets in 2021. In comparison with the prior year, KfW issued around EUR 3bn more in euros (share in funding mix: 55%). With a share of 26%, the US dollar was the second most important currency and continued to play an important role for KfW. There was a total of 211 transactions in 15 different currencies. A total of 37 green bonds contributed EUR 16.2bn, accounting for roughly 20% of the refinancing – more than ever before. In this context, we see a confirmation of a trend rather than a one-off effect with regard to ESG issues. To fund KfW's special programme to support the German economy in the context of the coronavirus crisis, funds in the amount of EUR 3bn were raised through the Economic Stabilisation Fund (WSF) in the 2021 financial year. This brings the total amount of WSF funds raised since the beginning of the pandemic to EUR 42bn. The currently outstanding volume of refinancing funds is around EUR 35bn. At the beginning of December 2021, the Federal Government and KfW extended the deadline for applications under the KfW special programme until 30 April 2022. As we have already reported, long-term borrowing via the capital markets of EUR 80 to 85bn is planned for 2022. At least EUR 10bn of this amount is to be raised by issuing large-volume green bonds in various currencies. According to KfW, the diversification of products and currencies guarantees continuity and flexibility to achieve the best possible refinancing results in KfW's promotional business. At the time of the press release, the funding volume had already exceeded EUR 20bn last week for the year to-date. At EUR 34.5bn, the high demand for financing for energy-efficient housing continued to play a key role in the high domestic business volume (2020: EUR 26.8bn). The enormous influx of applications in recent weeks completely depleted the budgetary funds made available by the German Federal Government for the Federal Funding for Efficient Buildings (BEG) and resulted in the programme being suspended on 24 January 2022. In addition, the priority area of energy efficiency and renewables in the SME Bank segment has also increased significantly to EUR 11.8bn (2020: EUR 7.4bn). Commitments by KfW Capital for start-ups and young, innovative technology companies in Germany amounted to a total of EUR 502m in 2021.

Rentenbank reports further growth in core areas

According to a press release, 2021 was another good year for the promotional lending business of Landwirtschaftliche Rentenbank. New lending in the Agriculture and Renewable Energy segments increased sharply. In the former, this increase was especially driven by the Agriculture Investment Programme of the German Federal Ministry of Food and Agriculture (BMEL), whereas the increase in the Renewable Energy segment was driven by strong demand for wind power financing. Due to the uncertainty surrounding long-term investments in the sector, there was a slight decrease in the overall volume of new, low-interest special promotional loans, which came to EUR 5.6bn (2020: EUR 6.0bn). Again in 2021, the Agriculture segment accounted for the largest share of new special promotional loans granted. New lending increased by +18.3% to EUR 2.5bn (2020: EUR 2.1bn). "We are very pleased with the strong demand because it shows the great willingness of agricultural enterprises to make a positive contribution to the protection of climate, environment and nature. We still see enormous potential in this area," said Nikola Steinbock, Spokeswoman for Rentenbank's Management Board since the beginning of this year. The Renewable Energy segment also saw dynamic growth, increasing by 21.4% to EUR 1.1bn (2020: EUR 0.9bn), thanks to strong demand for wind power financing. Of course, we are also very interested in how the bank performed on the capital market: To fund its promotional lending business, Rentenbank raised EUR 10.7bn in medium and long-term funds on the capital market in the 2021 financial year under its RENTEN ticker (2020: EUR 11.4bn). At 62% of total issues, the euro was the most important issuance currency (2020: 41%), followed by the US dollar at 25% (2020: 47%). The most important investor groups are still commercial banks and central banks, together accounting for 74% (2020: 79%) of the total volume placed. It is also worth taking a look at the improved capital ratios: at the end of 2021, Rentenbank improved the capital ratios calculated on the basis of the EU Capital Requirements Regulation (CRR). The CET1 ratio rose slightly to 31.8% (2020: 31.0%). The total capital ratio also rose slightly to 32.0% (2020: 31.5%). Both capital ratios are well above the regulatory requirements applicable to Rentenbank. The cost-income ratio stood at 32.9% (2020: 28.2%).

The role of Île-de-France Mobilités as a green bond issuer

Île-de-France Mobilités (ticker: IDFMOB) is the authority responsible for planning and providing public transport in the Paris metropolitan area. Until 2017, the IDFMOB operated under the name *Syndicat des transports d'Île-de-France* (STIF). The legal name change was completed in 2020. In our opinion, IDFMOB is to be considered a public issuer and has already been purchased by the central banks under the PSPP and PEPP. The rating agency Moody's assigns a rating of Aa3 with a stable outlook. In total, IDFMOB has bonds amounting to EUR 4.2bn outstanding at the present moment. The role of the IDFMOB in the fight against global warming, however, should not be underestimated: for example, a total of 75% of buses in operation are to be converted to methanol by 2030, and other transport options are also to operate more sustainably overall. The capital requirements arising from this are to be covered, among other things, by issuing green bonds. For this purpose, the IDFMOB envisages annual deals of between EUR 1.1bn and EUR 1.5bn through to 2025. From a regulatory point of view, we consider the planned green bonds to have a risk weighting of 20% and to be Level 2a in accordance with the LCR. We provide details of a fresh dual tranche issued in the current trading week on the following page.

Primary market

With the upcoming ECB meeting last week, issuers venturing onto the trading floor were thin on the ground. One of these few issuers was Lower Saxony (ticker: NIESA): we already announced this upcoming deal in our previous edition. For the seven-year benchmark bond (EUR 500m WNG), guidance of ms -10bp was initially given before being revised to ms -11bp. In the pricing process, spread narrowing of a further basis point was observed, resulting in a final spread of ms -12bp. The book was oversubscribed almost fourfold with a volume of EUR 1.975bn. This week, Île-de-France Mobilités (ticker: IDFMOB) then ushered in the trading week in our SSA segment. The mandate for this was already in place last week. Two green issues raised a volume of EUR 1.3bn, with EUR 700m envisaged for the 10yr bond and EUR 600m for the 20y bond. The guidance for these bonds was OAT +32bp area (10y) and OAT +33bp area (20y). In the course of pricing, the 10y bond narrowed by one basis point to OAT +31bp. According to our calculations, the spread thus amounts to ms +21bp (10y) and ms +46bp (20y). The order books totalled EUR 940m (10y) and EUR 620m (20y) respectively. For the next deal, we turn to our well-known "mega issuer": Yesterday, the EU – which is also its ticker – raised a total of EUR 7.2bn on the capital market in two deals. The first transaction provided for a new issue of a EUR 2.2bn (WNG) bond to refinance the European Financial Stabilisation Mechanism (EFSM) with a maturity of 4.7 years. Yes, that's right. Your eyes are not deceiving you: not a NextGenerationEU issue, but a transaction on behalf of the EFSM. The books were bulging with orders in the amount of EUR 19.0bn. This led to narrowing of two basis points to ms -23bp after guidance in the area of ms -21bp. The second deal provided for the EUR 5.0bn tap of the sixth NGEU bond (EU 0.7% 07/06/2051). At the time of the original guidance, there was still talk of a tap of EUR 4.0bn in the area of ms +32bp, but this was revised the next day to a volume of EUR 5.0bn for which the guidance stood in the area of ms +30bp. The tap was eventually priced at ms +29bp with a corresponding order book of EUR 60.0bn. Besides the EU, two other issuers in our coverage took advantage of the market environment for taps: firstly, Berlin increased BERGER 0.01% 10/26/28 by EUR 500m at ms -12bp (guidance: ms -11bp area), and secondly, Rentenbank, which also opted for EUR 500m (RENTEN 0.05% 01/31/31 at ms -11bp). Last but not least, CADES mandated a social deal (7y). We expect that pricing for this deal will be finalised after the editorial deadline. As such, we shall provide further details here as usual in our next issue.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
EU	SNAT	08.02.	EU000A3K4DA4	4.7y	2.20bn	ms -23bp	AAA / Aaa / AA	-
IDFMOB	FR	07.02.	FR0014008CP1	20.0y	0.60bn	ms +46bp	- / Aa3 / -	X
IDFMOB	FR	07.02.	FR0014008CQ9	10.0y	0.70bn	ms +21bp	- / Aa3 / -	X
NIESA	DE	02.02.	DE000A3MQA98	7.2y	0.50bn	ms -12bp	AAA / - / -	-

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

Cross Asset
ECB: full speed, throttling, U-turn – or wrong turn?

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

ECB meeting: things always happen when you least expect them
Last Thursday (3 February), the ECB held its first regular meeting of the year. Formally speaking, our forecast regarding the specific facts and above all new decisions was 100% accurate. In her opening statement, Christine Lagarde stuck by all the comprehensive decisions taken back in mid-December 2021. Nevertheless, the further course of the press conference overshadowed this statement and came as a real surprise to many market observers. A striking indication of a much more “hawkish” ECB was above all reflected in what was not said or achieved. For example, Lagarde neither reiterated that interest rate hikes in 2022 were “very unlikely”, nor was she able to convince market participants that price trends were not causing a headache for the Council. Everything now hinges on March and possible adjustments by the ECB, although the framework for 2022 actually would already seem to have been established and (in principle) still applies: PEPP to end on 31 March 2022, moderate pace of purchases until then and, according to our calculations, the envelope of EUR 1,850bn will not be used in full, adjustment of the APP in 2022 with staggered pace of purchases (booster), no decisions on TLTRO IV or tiering, a rate hike only after the currently open-ended APP is brought to a close. Yet, how sustainable are these decisions when the market and market observers – in the wake of this particular press conference at the latest – are now pricing in at least one interest hike in 2022, possibly even two? We shall now discuss this topic in today's Cross Asset article as part of a scenario analysis, focusing on the possible paths for quantitative easing (APP) moving forwards.

So far: increased APP, unused envelope of PEPP and reinvestment until the end of 2024
While an end to the pandemic purchase programme at least gives us hope that purely monetary policy issues (keyword: inflation mandate) will again dominate market events in 2022, serious doubts are now being raised regarding the APP in its adopted form. The focus increasingly turned to the ECB’s inflation target and the current development of the HCPI, especially in the Q&A session after the opening statement. In March, we can expect new HCPI projections for 2023 and 2024. Despite the rising inflation rates, it is not out of the question that the unutilised portion of the “PEPP envelope” could be used for other purposes, since the programme entails more freedom in purchasing than the APP (key word: Greece). Explicit mention is once again made of Greece, in particular, in the ECB’s statement. The ECB will also continue to reinvest the maturities of the PEPP until the end of 2024 at least, and could again display a significant degree of flexibility here. The ECB’s (still valid) baseline scenario envisages no increase in the APP in Q1 (i.e. EUR 20bn per month as before), then a doubling of monthly net purchases to EUR 40bn in Q2, a reduction to EUR 30bn per month in Q3 and a return to the initial level (EUR 20bn per month) in Q4. In the APP, this corresponds to an additional purchase volume of EUR +90bn in 2022 versus 2021 and a total volume in 2022 of EUR 330bn. It is also worth repeating that the APP currently still has no defined end date, with interest rate hikes only to be implemented once this purchase programme is brought to a close (sequencing).

Doves or hawks: Who spoke last Thursday?

Although the ECB statement was almost identical to the statement in December 2021 and could thus be regarded as "dovish", the mood changed to "hawkish" during the press conference, as we mentioned before. When considering interest rate hikes, but also with regard to the further course of the APP, the focus is now increasingly on the "when and how". Since Thursday afternoon, we also no longer believe in the postulated quarterly course that first envisages a booster of the APP programme before gradually scaling back purchases. However, sequencing in this context also means: first end the purchases under the APP, then dare an initial rate hike. We still firmly believe in this sequencing scenario. While a fresh EUR 330bn was previously expected for 2022 under the APP, we foresee possible reductions to EUR 150-240bn under our three scenarios. This would have a significant impact on the SSA segment as well as covered bonds.

ECB purchase programme: conceivable paths and announcements

Current path

- By end of Q1: Discontinuation of PEPP, EUR 1,850bn not exhausted
- Q1 2022: APP is at EUR 20bn per month
- Q2 2022: APP doubles to EUR 40bn per month
- Q3 2022: APP is reduced to EUR 30bn per month
- Q4 2022: APP returns to current level (EUR 20bn)
- H1 2023: First interest rate hike by 25 basis points

Total volume of APP for 2022: **EUR 330bn**

Conceivable new path: Scenario 1

- By end of Q1: Discontinuation of PEPP, EUR 1,850bn not exhausted
- Q1 2022: APP is at EUR 20bn per month
- *April/May: APP doubles to EUR 40bn per month*
- *June/July: APP is reduced to EUR 30bn per month*
- *August/September: APP back at EUR 20bn and expires*
- *Q4 2022: First interest rate hike by 25 basis points*

Total volume of APP for 2022: **EUR 240bn**

…Scenario 2

- By end of Q1: Discontinuation of PEPP, EUR 1,850bn not exhausted
- Q1 2022: APP is at EUR 20bn per month
- *Q2 2022: APP remains EUR 20bn per month*
- *Q3 2022: APP is reduced to EUR 10bn per month*
- *Q4 2022: First interest rate hike by 25 basis points*

Total volume of APP for 2022: **EUR 150bn**

…Scenario 3

- By end of Q1: Discontinuation of PEPP, EUR 1,850bn not exhausted
- Q1 2022: APP is at EUR 20bn per month
- *Q2 2022: APP is lowered to EUR 15bn per month*
- *Q3 2022: APP is reduced to EUR 10bn per month*
- *Q4 2022: APP is reduced for the last time to EUR 5bn per month*
- *Q1 2023: First interest rate hike by 25 basis points*

Total volume of APP for 2022: **EUR 150bn**

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

ECB calendar: it's all a question of timing – ECB Governing Council meetings in 2022

The ECB regularly publishes non-binding calendars for the Eurosystem's regular tender operations and reserve maintenance periods, as well as its meeting dates for the current year. Based on the scenarios shown, this schedule also suggests that the ECB would have a maximum of two meetings at the end of 2022 to satisfy the rate hike expectations on the part of market players. In this case, 27 October and 15 December stand out. Should one of the scenarios outlined above actually materialise, an end to the APP in September 2022 would mean that there would still be a maximum of two Council meetings to implement a rate hike in Q4.

- 10 March (new ECB projections)
- 14 April
- 9 June (new ECB projections)
- 21 July
- 8 September (new ECB projections)
- 27 October
- 15 December (new ECB projections, first time for 2025)

Necessary adjustments to the projected APP trajectory: What are the arguments in favour of the scenario analysis in the context of ECB tapering?

In outlining the three scenarios, we have been guided in particular by the possible implications for market participants and have also taken into account what the ECB Governing Council might have in mind. To some extent, a much more rapid reduction in the pace of purchases is the result of a what-if analysis based on the ECB calendar, with arguments both for a starting point (in April) at the level still announced in December (scenario #1) and for maintaining or reducing the actual APP volume per month at the start. Among other aspects, the idea that the Council wants to fulfil the announcements made in December 2021 and February 2022, as well as the idea of a more gradual reduction of the purchasing dynamic, are arguments in favour of scenario #1. As such, with the discontinuation of the PEPP, a massive part of the accommodative monetary policy will be lost. Accordingly, the ECB Governing Council could mitigate impending dangers or conceivable cliff-edge effects by briefly increasing the APP to EUR 40bn per month. A more "hawkish" ECB with a stronger focus on withdrawing the stimulus would tend to opt for either scenarios #2 or #3, whereby the latter would be seen as a makeshift solution with a slower pace of purchases but with no "brought forward" rate hike.

"Key rates" also as a benchmark for unconventional monetary policy

The deposit facility rate is the interest rate at which commercial banks can deposit their money with the ECB overnight. This is currently at -0.50% and has been of increasing concern to us for some time due to the resulting consequences of the various TLTROs (targeted longer-term refinancing operations) and the possible tiering in 2022. In contrast, there is also the marginal lending facility, i.e. the interest rate at which commercial banks can borrow money from the ECB on a short-term basis ("overnight"). This is in positive territory at 0.25%. The main refinancing operations (MRO) rate, on the other hand, is the interest rate at which commercial banks can borrow money from the ECB. This is generally considered to be **the** key interest rate and has been at 0.00% for some time. Normally, or in times of no crisis, the gap between the main refinancing rate and the other rates is an identical value upwards and downwards. This has not been the case for some time. Here, the symmetry of monetary policy used to apply with regard to overnight transactions, but that is a topic for another day.

New TLTROs and/or tiering were expected for 2022 – but is that still the case now?
The negative deposit rate weighs heavily on the earnings situation of European banks. Therefore, in recent months, we have been of the opinion that there would either have to be a new round of TLTROs and/or relief for the commercial banks through a raised tiering factor. Given the current discussion about one or two interest rate hikes by the ECB in 2022, this seems to becoming (increasingly) superfluous. If the ECB were to change the key interest rate, i.e. the main refinancing rate, then the other rates could hardly remain at their current levels at the same time. Provided that these hikes amount to a quarter of a percentage point each, the negative interest rate for banks would soon be a thing of the past. This effect should certainly not be underestimated in the current debate. This, in turn, would possibly boost the supply of fresh bonds, should the banks no longer be able to raise money cheaply via TLTROs in the future. In this situation, the ECB could well feel compelled to adjust the tiering factor. In some respects, this could then also be described as a transitory measure on the way out of unconventional monetary policy measures. In the long run, the relevance of the graduated interest rate will finally be eliminated by an end to the negative interest rate environment, but also through a less pronounced expansionary impetus in the form of asset purchases on excess liquidity.

What has been heard from the ECB since last Thursday?
Christine Lagarde recently addressed the European Parliament's Economic and Monetary Affairs Committee in a video conference and reiterated the need for the central bank to retain its capacity to act flexibly. She also pointed out that the ECB's monetary policy was always data-driven and that this was particularly true for the current environment. In addition, the president of the European Central Bank made it clear that sequencing would be maintained and that any adjustment of its own policy would be "gradual". The day before, more hawkish tones were heard from Klaas Knot, who expressed his expectations of an initial rate hike in Q4 2022. Francois Villeroy de Galhau, for his part, urged against jumping to conclusions about the timetable, while Robert Holzmann even took the (rather maverick) position that a rate hike before the expiry of the purchase programmes was definitely an option.

Conclusion and comments
We don't want to rant about the half-life of monetary policy decisions, as the situation at the ECB has not yet changed at all in formal and factual terms. However, it was not to be expected that the monetary policy cards which had only been on the table since mid-December would already be past their sell by date in February. The decisions on the APP are still effective, but the rise in interest rates since then must be seen in a close temporal context. In fact, there is disagreement about this even in the Governing Council. The focus is all the more on the meeting in March. The ECB would like to continue to hold the reins as much as possible while still retaining the greatest possible degree of flexibility. This will not be in the spirit of the designated hawks in the Council. President Lagarde will present the new inflation forecasts in March and, as so often, will have to answer many questions. Most will revolve around the issue of inflation, and she would do well to provide a new path in writing as early as 1:45pm ahead of the 2:30pm press conference then to dampen speculation on the market. There will only be a rate hike when the APP ends. For this to happen, the outlined course of the boosted APP would either have to be revoked or scaled back. In March, the end of the APP does not have to be declared by any means, but a reliable path in line with inflation developments would certainly be appropriate here.

Covered Bonds
Insurance companies as covered bond investors: the bank-insurer nexus

Author: Melanie Kiene

Banks and insurance companies – a connection on which the supervisory authority's attention is focused

The asset class of covered bonds plays a significant part in the investment universe of insurance companies. As covered bond investors, insurers in recent years have faced and continue to face major challenges, which make covered bonds less attractive – at least in relative terms. In addition to the current interest rate level and the ECB's purchase programme (CBPP3), the changed regulatory requirements applicable to banks (e.g. capital requirements, resolution regime, liquidity ratios and ratings) must be mentioned. For banks, insurance companies represent an important group of investors. This additionally highlights the interdependency of banks and insurance companies, i.e. the bank-insurer nexus. The Single Resolution Board (SRB), Europe's resolution authority, and the European Insurance and Occupational Pensions Authority (EIOPA) together have tackled this matter. In this article, we first take a look at the evaluation of the nexus between banks and insurance companies as well as the SRB's assessment of contagion risk and then analyse the current EIOPA statistics for the insurance industry as a whole, supplemented by the regulatory categorisation of covered bonds under Solvency II.

SRB – evaluation of contagion risk between banks and insurance companies

The SRB regularly reviews its own approach to bank resolution, always assessing the public interest. At the core of this issue is the question as to whether a failing bank can be subject to bank resolution or wound up as part of insolvency proceedings. The focus of its annual assessment, which is carried out for all banks under the supervision of the SRB, is on any impact on specific market players and immediate counterparties as well as sector contagion risk – including with regard to the insurance industry. The assessment of the public interest constitutes a key pillar of confidence regarding the protective measures taken in bank resolution, in order to both guarantee financial stability and protect the taxpayer. This is where the focus shifts to the bank-insurer nexus in particular. After all, the insurance sector holds a considerable share of the assets issued by the banks which are under SRB supervision. Furthermore, the SRB also is the supervisory authority of some bank-insurance conglomerates with intra-group links, which impact significantly on potential contagion and should therefore be traceable. In its assessments, the SRB cooperates with the EIOPA when testing and evaluating a method for assessing the contagion risk resulting from the failure of a bank. For the first time, a complex bank-insurer network was used on the basis of Solvency II reporting data and insolvency categories. In addition, write-downs on instruments were simulated in accordance with the national insolvency ranking.

Initial findings published on the evaluation of contagion risk

The EIOPA published initial results of these tests in its Financial Stability Report in December 2021. In the report, it becomes apparent that the insurance sector has considerable exposure to the banking sector. At the same time, the alert level regarding the contagion risk resulting from a bank's failure was slightly lowered. From the "what if" analysis, it therefore emerges that the direct contagion risk and the risk arising from the idiosyncratic failure of a bank under SRB supervision are limited. At this point, we essentially want to take a closer look at the distribution of assets on the books of insurers to quantify the relevance of both unsecured and covered bank bonds.

SRB methodology uses Solvency II data

First with regard to the data basis, the Solvency II data of all individual insurance companies in the European Economic Area which hold instruments from banks that fall under the area of responsibility of the SRB was incorporated in the analysis – 1,388 insurance companies in total. Of these, 38 are bank-insurer combinations with holdings in excess of EUR 1bn and 614 insurers have holdings of more than EUR 100m. The distribution of assets at insurance companies varies. The total assets issued by banks under SRB supervision and held by insurance companies amounted to around EUR 350bn as at the analysis cut-off date (end of 2020), which accounts for only 4% of total insurer investments. This means that the analysis covers approximately 30% of all bank instruments held by EEA insurers. It is evident that bank bonds represent the most important asset class regarding banks in which insurance companies invest. Senior bonds are the dominant asset class, although covered bonds account for a combined total of 14%. However, the methodology characteristically categorises these as lower risk. The methodology could be expanded in that Solvency II data includes no distinction in terms of holdings of non-preferred senior bonds.

EIOPA/SRB analysis: Portfolio compilation of insurance companies analysed

Bank liability	Insurer assets	Sample share of insurers' bank assets
Equity	Equity	1%
Subordinated	Convertible bonds, hybrid bonds, subordinated bonds	13%
Senior non-preferred	Share of corporate bonds*	11%
Senior unsecured	Share of corporate bonds*, commercial paper, money market instruments, uncollateralized loans, other mortgage and loans	47%
Deposits	Transferable deposits, other deposits	14%
Secured	***Covered bonds, collateralized loans***	***14%***

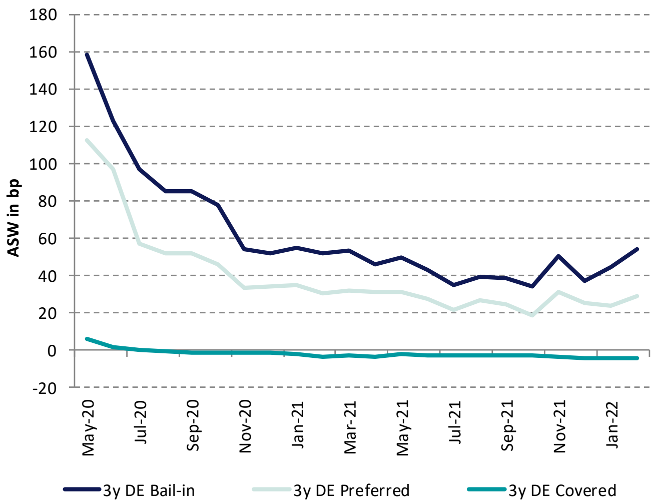
*the split of corporate bonds between the two categories has been defined based on bank liability structure

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

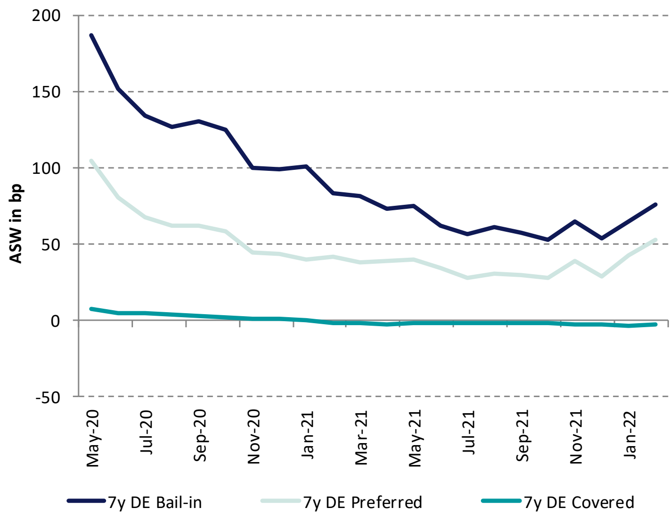
Insurance sector as a whole is resilient

As the EIOPA indicates, the insurance industry as a whole is robust. Only the failure of a few specific banks in the worst market scenario could result in problems and a spillover effect to individual insurance companies. In particular, the diversification of insurers' portfolios and the high share of covered bonds play a fundamental role – including in our assessment.

Spread trend for EUR BMK 3y



Spread trend for EUR BMK 7y



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

Spread trend confirms lower risk of covered bonds

The above-mentioned reason provided by the regulatory authorities that covered bonds represent a significantly lower risk compared with senior unsecured bonds in the event of a crisis is a well-known fact and is illustrated by the above spread trend charts. While the gap between the highest and lowest ASW for covered bonds (example used: 3y & 7y Pfandbriefe) was “only” around 20bp in the past 36 months, it was approx. 130bp for preferred bonds (also from German banks) and as much as up to 230bp for non-preferred bonds in the 7y maturity range (7y DE bail-in). With regard to the investor group analysed here, i.e. the insurance industry, covered bonds represent a relatively stable investment option, including in times of crisis, compared with senior bonds. However, the higher risk of senior unsecured bonds also provides yield advantages, which underlines the importance of both asset classes for insurance companies. Yet, regulatory restrictions apply to both asset classes in terms of investing, as explained in detail in the following.

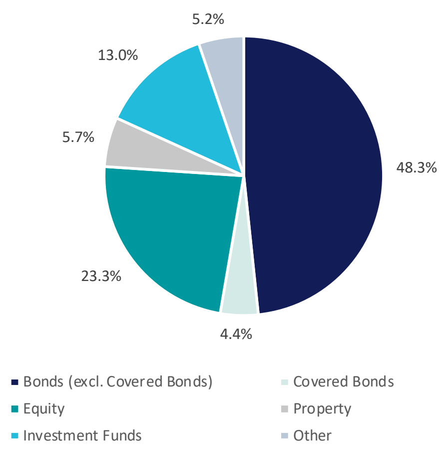
EIOPA statistics – covered bonds account for a 4.2% share of total assets

We have already discussed the high level of relevance of insurance firms in respect of covered bond issues for banks supervised by the SRB. Covered bonds are equally important in relation to the overall insurance market. In our view, this is evident from the relevant figures in the EIOPA statistics for insurers as a whole. In the following, we analyse the official EIOPA data for the third quarter of 2021 with regard to covered bonds. The information is based on the statistics supplied as per the Solvency II reporting requirements (cf. EIOPA insurance statistics). For the third quarter of 2021, a covered bond volume of EUR 403bn, or 4.2%, is deduced (Q1 2020: EUR 460bn, or 5.07%), measured in relation to the total asset exposure (EUR 9,606.7bn). This means that the downward trend of recent years has continued for covered bonds. For the purposes of comparison, it should be stated that the statistics go back as far as the fourth quarter of 2017. An asset exposure of EUR 8,213bn as at year-end 2017 (first data collection based on the current taxonomy) and investments in covered bonds totalling EUR 515bn mean that the percentage share of covered bonds amounted to 6.27%.

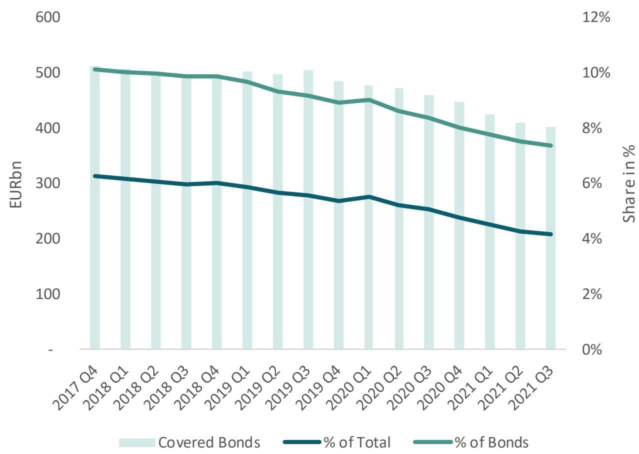
EIOPA statistics – growth evident in equity and property categories

Compared with covered bonds, an opposite trend was observed for the equity and property categories. With regard to equity investments, the volume of assets climbed to EUR 2,145bn (Q3 2021), which represents considerable growth on the fourth quarter of 2017 (EUR 1,537bn). Positions in the category of property rose from EUR 552bn to EUR 740bn in the same period. With regard to bond investments, the share of covered bond issues decreased. In the latest reporting period, covered bonds only accounted for a share of 7.42% (Q4 2017: 10.13%). Although the share of bonds (excl. covered bonds) also rose compared with Q4 2017, it decreased for the third quarter in a row and currently totals EUR 5,032bn. This is likely to be the result of the negative net supply trend for covered bonds, which has been ongoing for several years, as well as the ECB's role as major investor. Both factors tend to reduce yields via falling ASW spreads. On 20 October 2014, the ECB purchased covered bonds for the first time. At present, the CBPP3 purchase programme totals EUR 295.1bn.

EIOPA asset exposure categories



EIOPA asset exposure categories

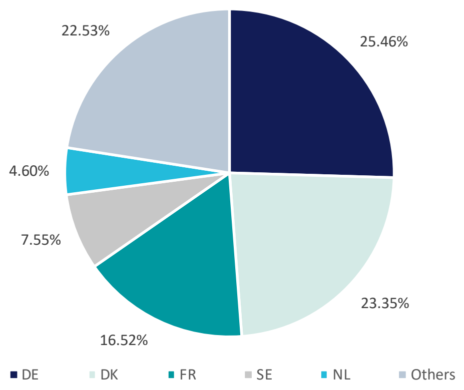


Source: EIOPA, NORD/LB Markets Strategy & Floor Research

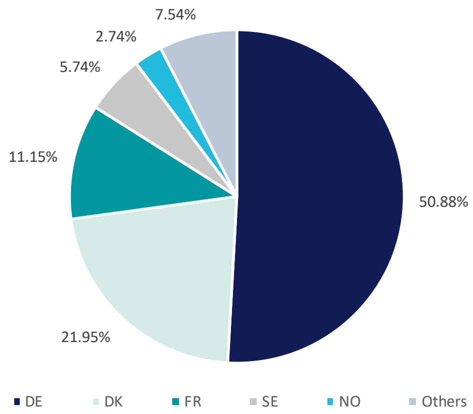
EIOPA statistics – country overview

Nonetheless, these trends in the shares of covered bonds should by no means give rise to a view of the asset class as being marginalised in terms of its relevance to insurance companies. Accordingly, it seems expedient to highlight the regional characteristics of the EIOPA data. With regard to the distribution of covered bond investments, the highest share was attributable to assets located in Germany at 25.46%, followed by Denmark (23.35%) and France (16.52%). With regard to the reporting country of the relevant insurance companies, the size of the covered bond markets in Germany, Denmark and France explains the high shares attributable to these countries. Furthermore, a detailed analysis of the data revealed a significant home bias. Accordingly, demand from insurance companies for covered bonds from their own country often is disproportionately high.

EIOPA covered bond exposures – target country



EIOPA covered bond exposures – reporting country



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

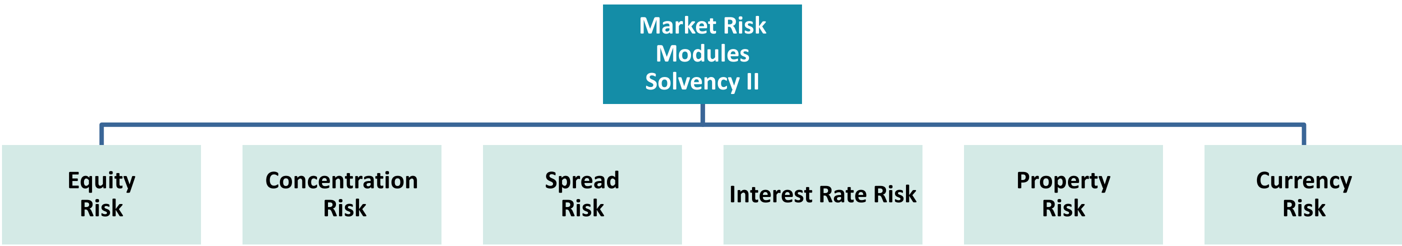
Solvency capital requirement (SCR) in Solvency II

In the following, we briefly explain the regulatory treatment of covered bonds under Solvency II and refer to Covered Bond & SSA View 33/2021, where this regulatory aspect was explained in more detail. Overall, it can be stated that the relevance of covered bonds as an asset class for insurance companies partly results from their preferential regulatory treatment. Capital requirements for insurance companies are generally regulated in pillar 1 (quantitative requirements) of Solvency II, with a distinction made between two levels of capital requirements. The minimum capital requirement (MCR) marks the regulatory lower limit of solvency capital to be maintained and is calibrated with a confidence level of 85%. In contrast, the second level of capital requirements, the solvency capital requirement (SCR), represents the capital resources required with the aim of ensuring that the financial institution in each case will be able to meet its payment obligations in the coming twelve months with a 99.5% probability. The provisions for determining the SCR, which are also relevant to covered bonds, are based on EU Directive 2009/138/EC of 25 November 2009 and the Commission Delegated Regulation (EU) 2015/35 published on 17 January 2015. In Germany, they were transposed in national law with effect from 1 January 2016 in the form of the Gesetz zur Modernisierung der Finanzaufsicht über Versicherungen (VAG, Act to modernise the financial supervision of insurance undertakings).

The Solvency II standard model

As part of Solvency II and in the Commission Delegated Regulation (EU) 2015/35, theoretically, three approaches for calculating solvency capital requirements are specified: i) simplified calculation models, ii) the SCR standard model as well as iii) internal models. This article focuses on the SCR standard approach, or standard model, which is module-based (cf. chart below, Solvency II – market risk modules). Capital requirements are calculated at the level of risk models and risk sub-modules respectively, which comprise the SCRnon-life (non-life assurance technical risk module), SCRmarket (market risk module), SCRdefault (counterparty default risk module), SCRhealth (health insurance technical risk module) and SCRlife (life assurance technical risk module) and are aggregated for the purpose of determining the basic solvency capital requirement (BSCR).

Solvency II – market risk modules



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

Market risk model relevant to covered bonds

With regard to covered bonds, the SCR module on market risk (SCRmarket) is particularly relevant. The market risk module comprises the following categories: equity, concentration, spread, interest rate, property and currency risk. Covered bond positions are only indirectly linked to currency and interest rate risks. However, spread and concentration risks are far more important. In terms of the method used, a stress scenario is assumed for spread risk as well as other types of risk when calculating the SCR, which triggers a decline in prices. In the spread risk, this risk factor is a function of the rating from an external credit assessment institution (ECAI) and the modified duration of the bond.

Preferential treatment of covered bonds under Solvency II

In view of the high share attributable to bond positions as part of asset allocation at insurance companies, the spread risk is particularly important when calculating the SCR. The spread risk essentially depends on the rating and duration of an investment. Weaker ratings and a longer capital commitment duration result in higher capital requirements for the insurance firm. Nevertheless, with regard to a duration of more than five years, the increase in capital requirement is smaller. Part of the reason for this is to take into account the investment strategy of life assurance companies, which is based on matching maturities. For covered bonds (i.e. currently for bonds within the meaning of Article 52 (4) of Directive 2009/65/EC), specific requirements apply to capital backing pursuant to Solvency II and the VAG respectively, which result in preferential regulatory treatment compared with other interest rate instruments (e.g. corporate bonds and asset backed securities (ABS)).

Spread risk as part of determining the SCR for covered bonds

As part of the Solvency II framework, it is assumed that covered bonds with a high rating are covered by a diversified pool of assets and that this cover pool collateralises the major part of the value of the relevant bond in the event of default. As per the formulae indicated, the strain on capital resulting from the SCR for spread risk is lower for covered bonds with the relevant high ratings compared with corporate bonds. For covered bonds of CQS 2 or lower, the applicable risk factor as part of determining the SCR is not lower. This means that when calculating the strain on capital, the formulae for CQS 2 covered bonds match the formulae applicable to corporate bonds.

Sovereign bonds of EU member states as well as bonds with rating levels 0 and 1 and zero risk factor

However, the preferential treatment of covered bonds when calculating the SCR (relatively speaking) must be put into perspective in view of the treatment of sovereign bonds. Bonds from EU member states (irrespective of the CQS and/or rating) as well as from countries with credit quality steps 0 and 1 benefit from a risk factor of 0% in a stress scenario, making them more attractive. Although the process of asset allocation must not be reduced solely to the regulatory capital commitment, we would say that, in view of their regulatory capital commitment, these bonds are more attractive than covered bonds.

Solvency II – SCR calculation for covered bonds, sovereign bonds, corporate bonds and asset backed securities

Assets	CQS	≤5y	5y to ≤10y	10y to ≤15y	15y to ≤20y	>20y
Covered Bonds	CQS 0	0.7%*D	3.5%+0.5%*(D-5)	6.0%+0.5%*(D-10)	8.5%+0.5%*(D-15)	11.0%+0.5%*(D-20)
	CQS 1	0.9%*D	4.5%+0.5%*(D-5)	7.0%+0.5%*(D-10)	9.5%+0.5%*(D-15)	12.0%+0.5%*(D-20)
	CQS 2	1.4%*D	7.0%+0.7%*(D-5)	10.5%+0.5%*(D-10)	13.0%+0.5%*(D-15)	15.5%+0.5%*(D-20)
	CQS 3	2.5%*D	12.5%+1.5%*(D-5)	20.0%+1.0%*(D-10)	25.0%+1.0%*(D-15)	30.0%+0.5%*(D-20)
	CQS 4	4.5%*D	22.5%+2.5%*(D-5)	35.0%+1.8%*(D-10)	44.0%+0.5%*(D-15)	46.6%+0.5%*(D-20)
	Not rated	3.0%*D	15.0%+1.7%*(D-5)	23.5%+1.2%*(D-10)	29.5%+1.2%*(D-15)	35.5%+0.5%*(D-20)
Sovereign EU[1]	not relevant	0.0%	0.0%	0.0%	0.0%	0.0%
Sovereign	CQS 0	0.0%	0.0%	0.0%	0.0%	0.0%
	CQS 1	0.0%	0.0%	0.0%	0.0%	0.0%
	CQS 2	1.1%*D	5.5%+0.6%*(D-5)	8.4%+0.5%*(D-10)	10.9%+0.5%*(D-15)	13.4%+0.5%*(D-20)
	CQS 3	1.4%*D	7.0%+0.7%*(D-5)	10.5%+0.5%*(D-10)	13.0%+0.5%*(D-15)	15.5%+0.5%*(D-20)
	CQS 4	2.5%*D	12.5%+1.5%*(D-5)	20.0%+1.0%*(D-10)	25.0%+1.0%*(D-15)	30.0%+0.5%*(D-20)
Corporate Bonds	CQS 0	0.9%*D	4.5%+0.5%*(D-5)	7.0%+0.5%*(D-10)	9.7%+0.5%*(D-15)	12.0%+0.5%*(D-20)
	CQS 1	1.1%*D	5.5%+0.6%*(D-5)	8.4%+0.5%*(D-10)	10.9%+0.5%*(D-15)	13.4%+0.5%*(D-20)
	CQS 2	1.4%*D	7.0%+0.7%*(D-5)	10.5%+0.5%*(D-10)	13.0%+0.5%*(D-15)	15.5%+0.5%*(D-20)
	CQS 3	2.5%*D	12.5%+1.5%*(D-5)	20.0%+1.0%*(D-10)	25.0%+1.0%*(D-15)	30.0%+0.5%*(D-20)
	CQS 4	4.5%*D	22.5%+2.5%*(D-5)	35.0%+1.8%*(D-10)	44.0%+0.5%*(D-15)	46.6%+0.5%*(D-20)
Asset Backed Securities	CQS 0	2.1%*D (for type 1); 12.5%*D (for type 2); 33.0%*D (for re-securitisation)				
	CQS 1	3.0%*D (for type 1); 13.4%*D (for type 2); 40.0%*D (for re-securitisation)				
	CQS 2	3.0%*D (for type 1); 16.6%*D (for type 2); 51.0%*D (for re-securitisation)				
	CQS 3	3.0%*D (for type 1); 19.7%*D (for type 2); 91.0%*D (for re-securitisation)				
	CQS 4	82.0%*D (for type 2); 100.0%*D (for re-securitisation)				

Source: EIOPA, NORD/LB Markets Strategy & Floor Research, D = modified duration;

[1] direct central government exposure / guaranteed by EU member central governments

Solvency II – thresholds relevant to the SCR concentration risk

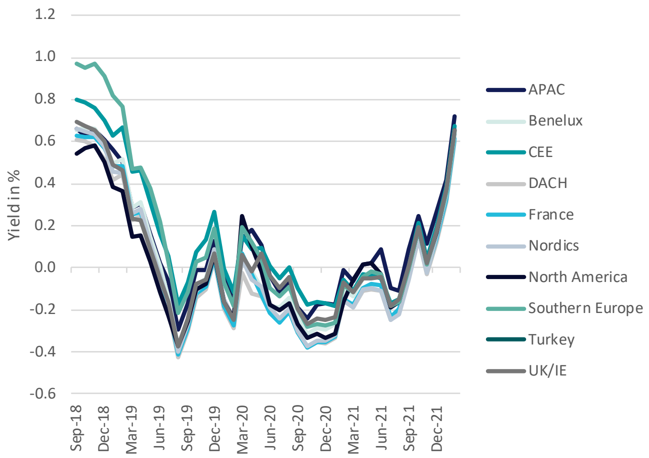
Bond type	ECAI Rating	Concentration threshold
Corporate Bonds	AAA - AA	3.0%
	A	3.0%
	BBB	1.5%
	BB or lower	1.5%
Covered Bonds	AAA - AA	15.0%
Exposure to EEA state, European Central Bank (ECB), multilateral development banks (MDB), international organisations (IO)	Not relevant	none

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

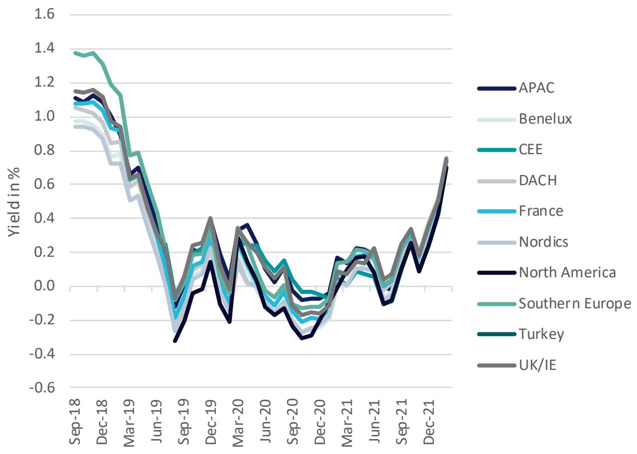
Concentration risk – separate treatment of covered bonds
Too much of a focus on a single issuer is additionally taken into account as part of the SCR market risk sub-module on market risk concentration. As soon as the amount of debt in the event of counterparty default exceeds a specified concentration threshold (or concentration risk threshold), it becomes necessary to calculate the relevant SCR for concentration risk. The concentration threshold is to be interpreted as a percentage of the assets – that is essentially the value of all assets held by an insurance or reinsurance company. The general rule applies that the weighted average rating of the risk exposure to a single issuer is decisive for deriving the concentration threshold. For ratings of 0, 1 and 2, the applicable threshold is 3%. For ratings of 3 to 6, the threshold is 1.5%. Within the scope of the sub-module on market risk concentration, an increased concentration threshold of 15% must be applied to covered bonds with a rating of 0 or 1. This means that a significantly higher threshold applies to covered bonds with particularly high ratings than, for example, to corporate bonds and ABS. Overall, this results in a lower SCR. Nevertheless, it should also be noted in this respect that debt vis-à-vis EU member states and multilateral development banks is subject to preferential treatment compared with covered bonds, because of a general exemption regarding the SCR calculation for concentration risk.

Yield pick-up on covered bonds make them more attractive
As mentioned above, monetary policy has had a significant impact on the investment behaviour of insurance companies. We would definitely interpret the yield pick-up observed for covered bonds, if viewed in isolation, as an indication that covered bonds are more attractive in absolute terms. However, from a relative value perspective, alternative investments in public sector bonds that enjoy preferential regulatory treatment compared with covered bonds and corporate bonds with higher yields, where applicable, should also be considered. The imminent interest rate hike expected in the USA and harbingers of more stringent ECB monetary policy resulted in a further upward trend in yields in recent weeks. However, from the perspective of insurance companies, we see a stronger focus on covered bonds as an asset class returning, especially in a market environment that is characterised by the higher pricing of risk.

Trend in covered bond yields (7Y)

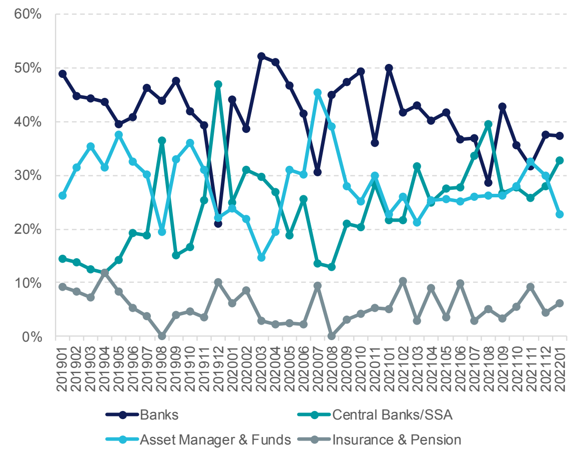


Trend in covered bond yields (10Y)

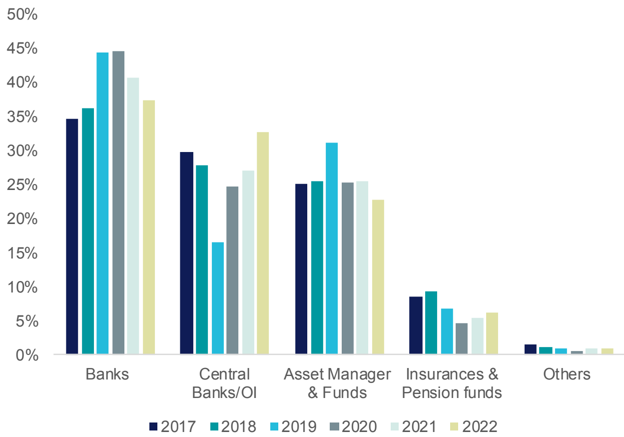


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

EUR benchmark – investor structure (monthly)



EUR benchmark – investor structure (annual)



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

Investor structure – share of insurance companies at a low level

The crowding-out of insurance companies in terms of the shares of primary market issues in the EUR benchmark bond segment is certainly evident in the investor structure based on deal reviews. The shares of the insurances & pension funds category indicate the relevant decreases in both the monthly and annual view up to the end of 2020. In the past year, demand from the sector started to increase again. Although we are still in the early stages of 2022, a higher level of demand from the insurance & pension funds sector for new covered bond issues launched this year is evident.

Conclusion

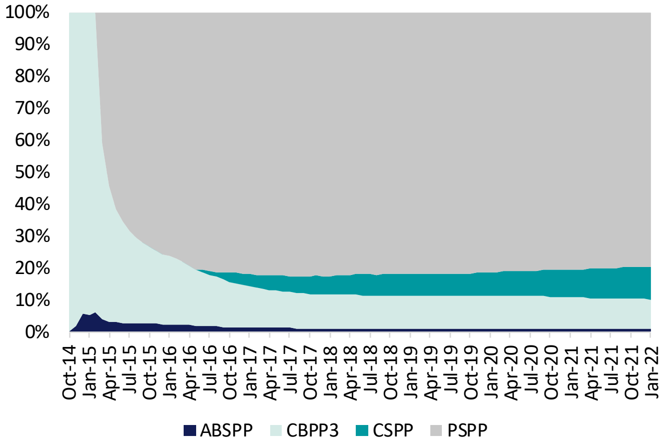
On the basis of the current EIOPA data, a continuation of the downward trend with regard to the absolute volume of covered bonds can be deduced. In relative terms, the share of covered bonds has also continued to decrease. With regard to insurance companies, the attractiveness of this asset class is subject to market conditions, which are mainly brought about by monetary policy. Pursuant to Solvency II, covered bonds benefit from preferential treatment when determining capital requirements compared with corporate bonds and ABS. With regard to the spread risk and the concentration risk, specific risk parameters are stipulated for covered bonds, depending on the rating level. This is to take account of the fact that covered bonds are collateralised by a cover pool comprising assets with a high asset quality. This assessment is shared by the EIOPA and SRB. Nevertheless, it must be noted that risk positions vis-à-vis EMU countries entail less of a strain on capital under Solvency II compared with covered bonds. In a different market environment in which the pricing of risk also plays a more important role, in relative terms, covered bonds may become more attractive in the long run. With regard to the overall view of the bank-insurer nexus, it can be stated that, although such a connection exists, it is manageable in risk terms because the portfolios of insurers are relatively heterogeneous. In addition, compared with the time before and during the financial market crisis, the capital structure of financial institutions overall currently is significantly more robust both in quantitative terms and in terms of higher quality. This also has a positive impact on the asset quality of covered bonds.

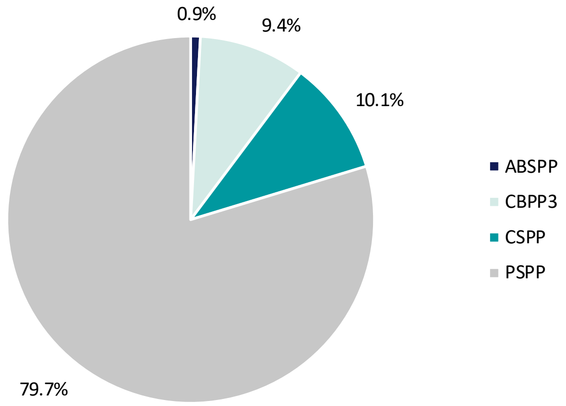
ECB tracker

Asset Purchase Programme (APP)

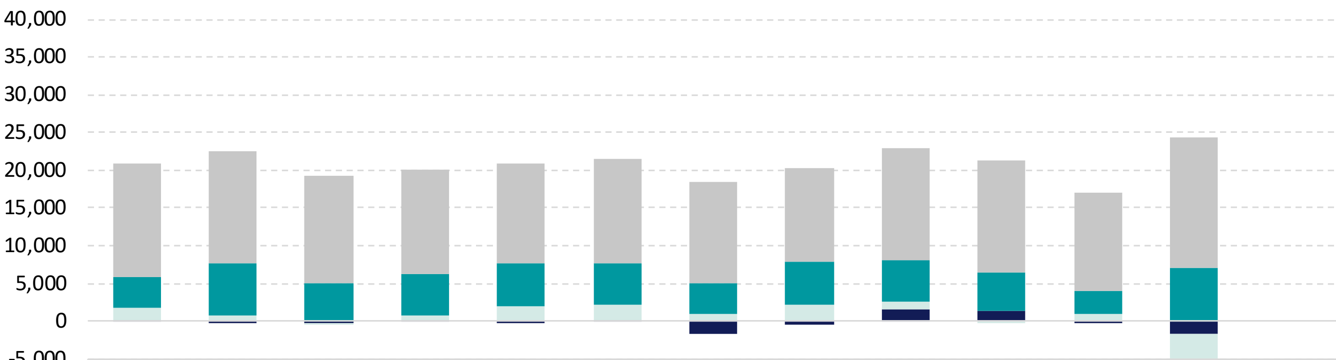
	ABSPP	CBPP3	CSPP	PSPP	APP
Dec-21	28,403	298,167	309,676	2,487,136	3,123,382
Jan-22	26,740	294,407	316,646	2,504,428	3,142,221
Δ	-1,663	-3,761	+6,970	+17,292	+18,838

Portfolio structure





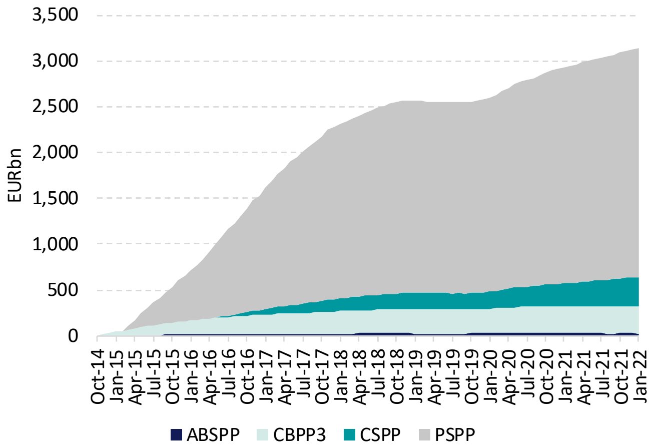
Monthly net purchases (in EURm)



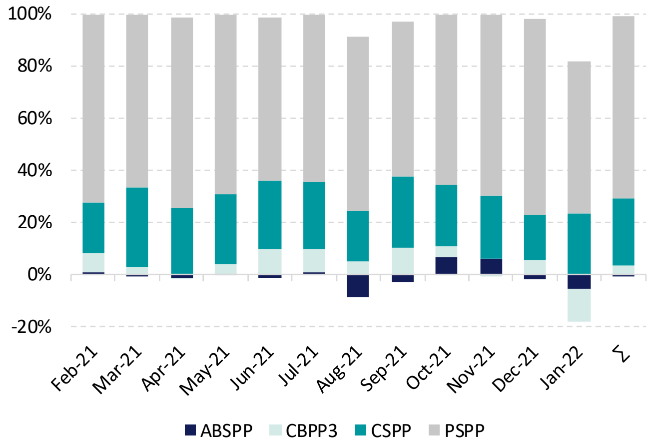
	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831
PSPP	15,129	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	171,626
CSPP	4,064	6,929	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	6,970	62,632
CBPP3	1,539	684	-5	686	2,037	2,011	999	2,184	1,008	-12	942	-3,761	8,312
ABSPP	183	-7	-278	88	-319	141	-1,749	-538	1,490	1,255	-342	-1,663	-1,739

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

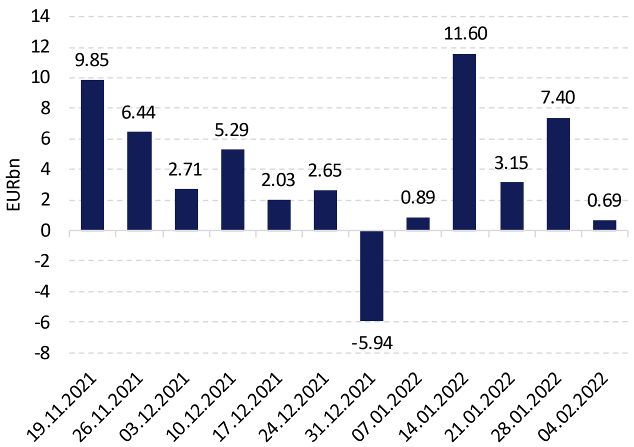
Portfolio development



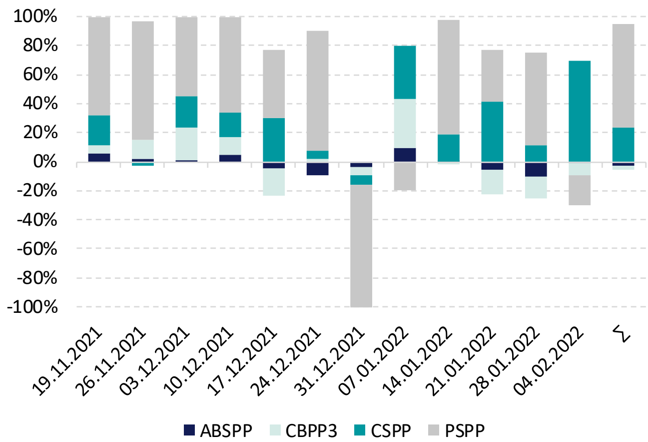
Distribution of monthly purchases



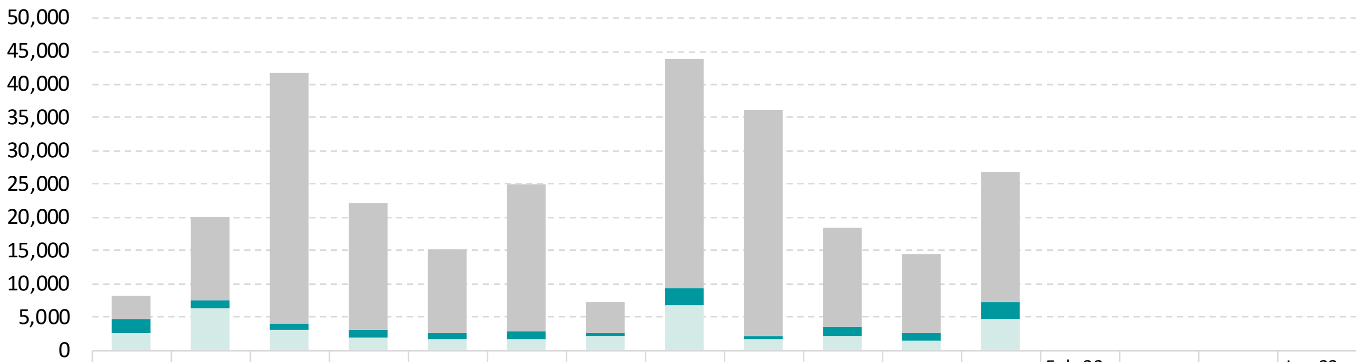
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

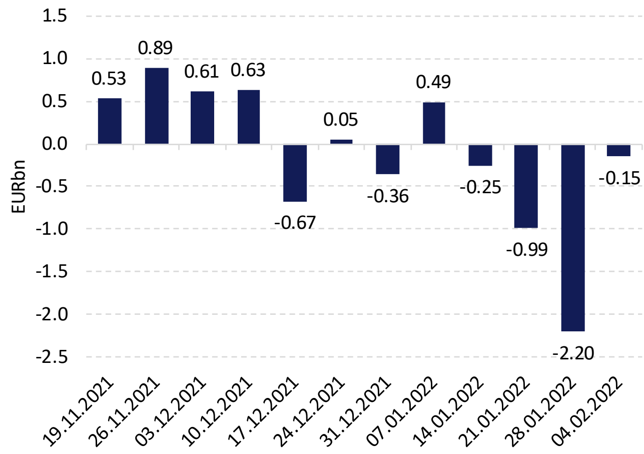


	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-22 - Jan-23	2021	2022	Jan-23 - Jan-23
APP	8,242	20,052	41,644	22,115	15,237	25,034	7,348	43,851	36,197	18,442	14,580	26,734	279,476	235,771	285,454	296,544
PSPP	3,625	12,603	37,532	18,999	12,638	22,218	4,841	34,554	34,003	14,945	12,016	19,469	227,443	188,494	228,880	228,880
CSPP	2,093	1,030	1,093	1,250	1,017	1,198	280	2,431	549	1,332	1,156	2,482	15,911	17,134	15,435	15,435
CBPP3	2,524	6,419	3,019	1,866	1,582	1,618	2,227	6,866	1,645	2,165	1,408	4,783	36,122	30,143	41,139	41,139
ABSPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,090

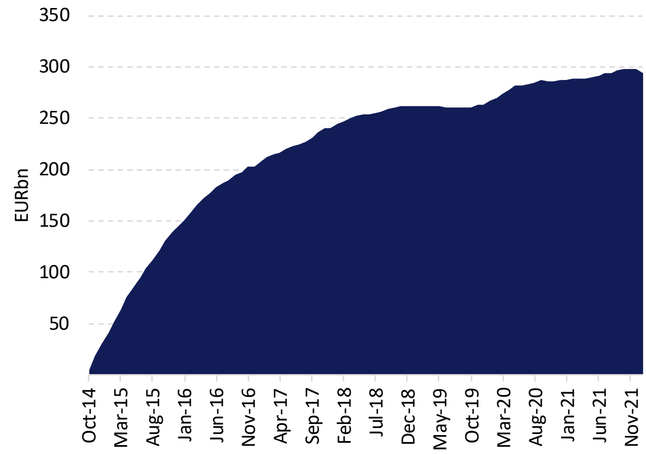
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

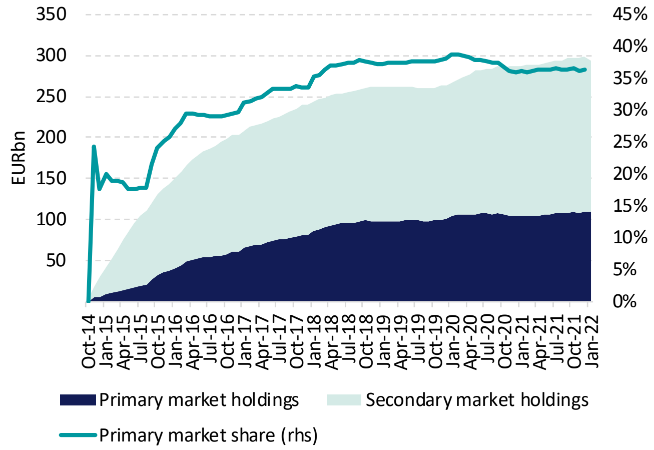
Weekly purchases



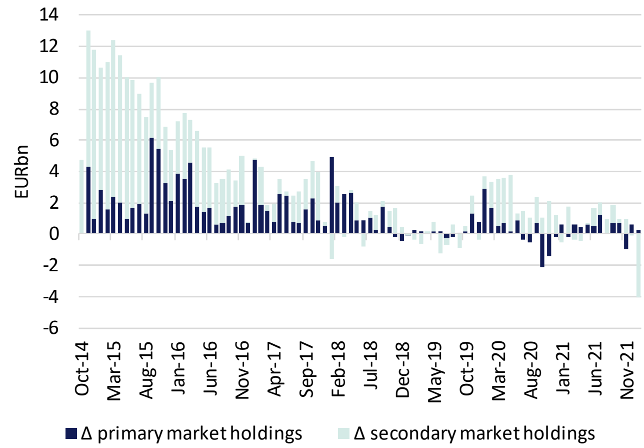
Development of CBPP3 volume



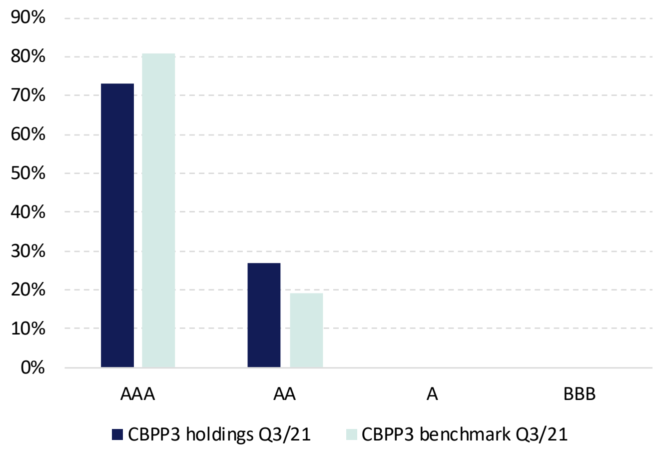
Primary and secondary market holdings



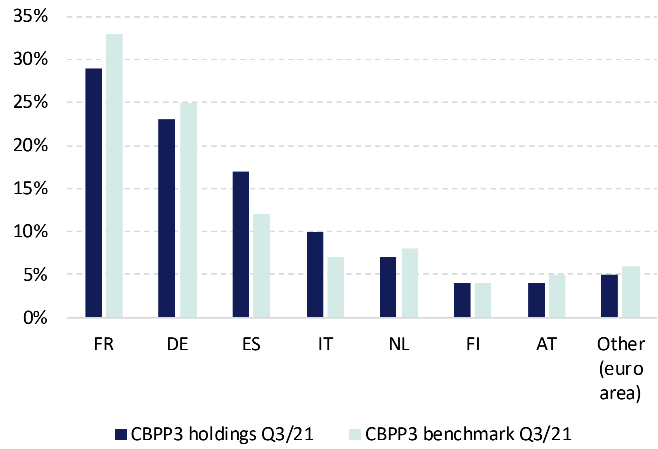
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



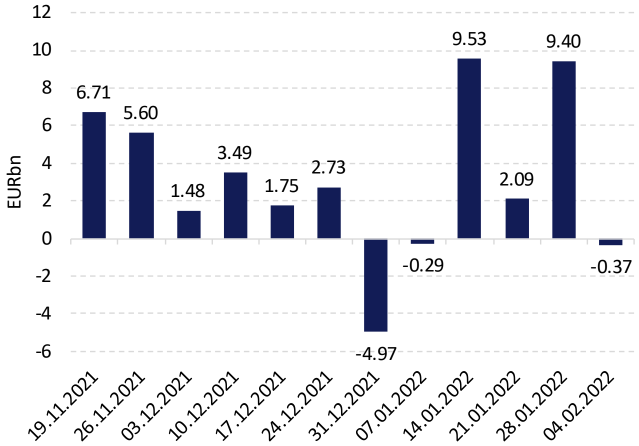
Distribution of CBPP3 by country of risk



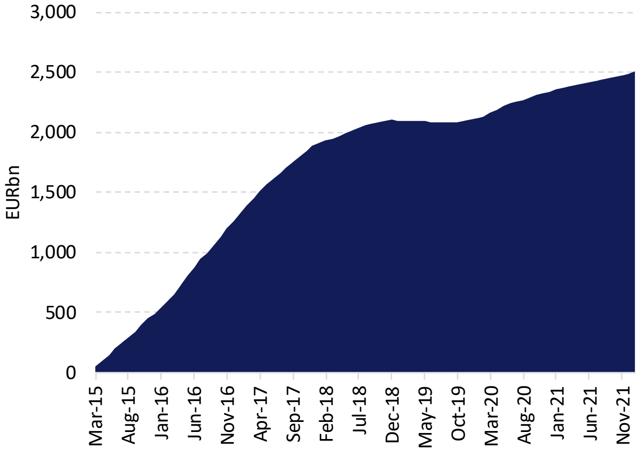
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



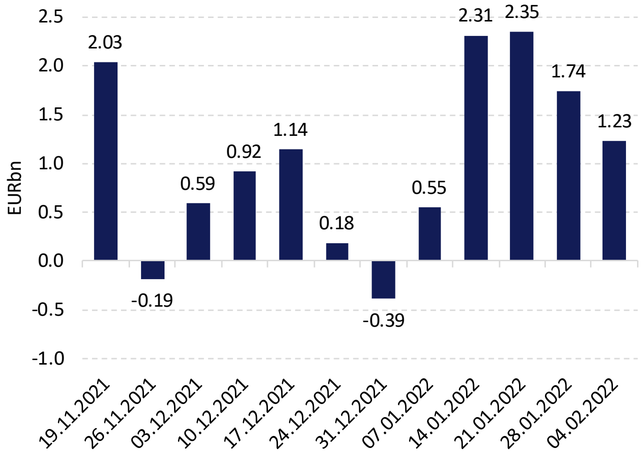
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Purchases (EURm)	Expected purchases (EURm)[2]	Difference (EURm)	Avg. time to maturity[3] (in years)	Market average[3] (in years)[3]	Difference (in years)
AT	2.7%	73,533	71,534	1,999	7.5	7.6	-0.1
BE	3.4%	92,162	89,041	3,121	8.0	10.2	-2.2
CY	0.2%	4,231	5,259	-1,028	9.9	8.8	1.1
DE	24.3%	636,820	644,277	-7,457	6.6	7.6	-1.0
EE	0.3%	412	6,885	-6,473	9.2	7.5	1.7
ES	11.0%	304,289	291,438	12,851	8.0	8.4	-0.4
FI	1.7%	42,029	44,893	-2,864	6.9	7.7	-0.8
FR	18.8%	522,717	499,173	23,544	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,707	41,386	321	8.5	10.1	-1.6
IT	15.7%	435,606	415,201	20,405	7.1	7.9	-0.8
LT	0.5%	5,595	14,145	-8,550	10.2	10.6	-0.4
LU	0.3%	3,900	8,051	-4,151	5.6	7.2	-1.7
LV	0.4%	3,386	9,523	-6,137	11.3	10.4	0.9
MT	0.1%	1,363	2,563	-1,200	9.5	9.2	0.3
NL	5.4%	123,586	143,229	-19,643	7.7	9.0	-1.4
PT	2.2%	51,757	57,202	-5,445	7.0	7.2	-0.2
SI	0.4%	10,474	11,768	-1,294	9.9	10.2	-0.3
SK	1.1%	17,208	27,990	-10,782	8.2	8.3	-0.1
SNAT	10.0%	277,625	264,840	12,785	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,648,399**	**2,648,399**	**0**	**7.3**	**8.2**	**-0.9**

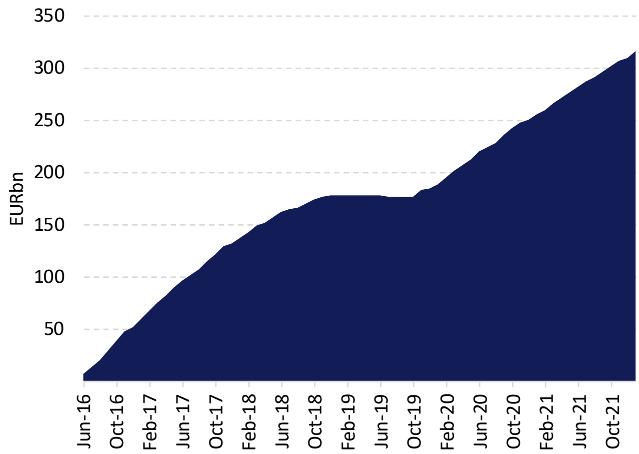
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor Research

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

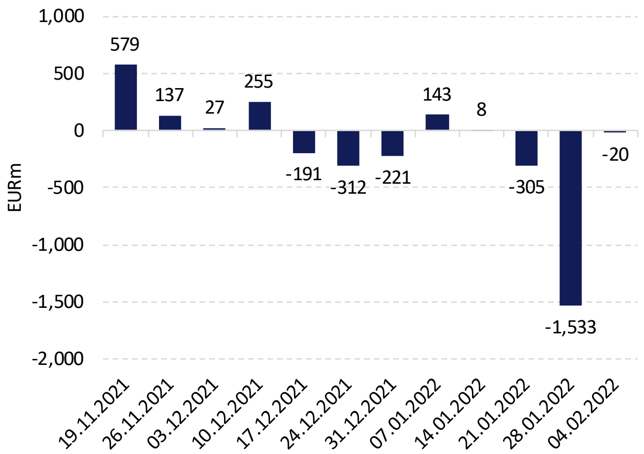


Development of CSPP volume

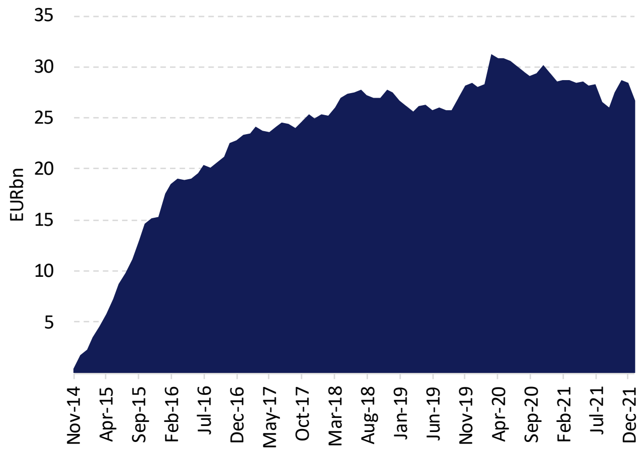


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



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

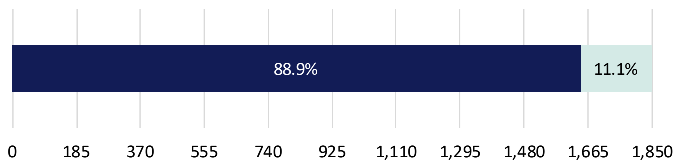
NORD/LB

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Dec-21	1,597,565
Jan-22	1,647,678
Δ	+50,113

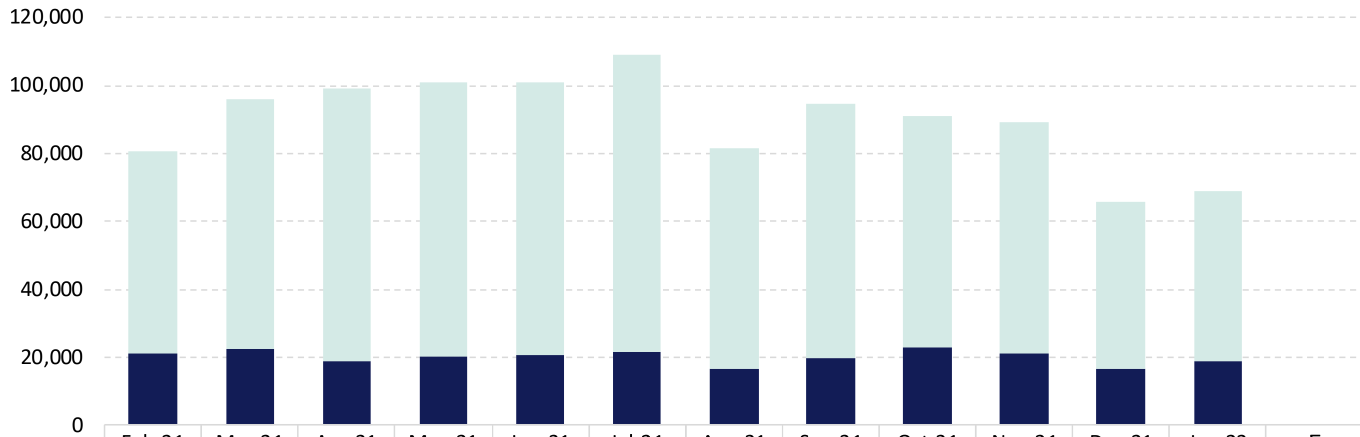
Volume already invested (in EURbn)



Estimated portfolio development

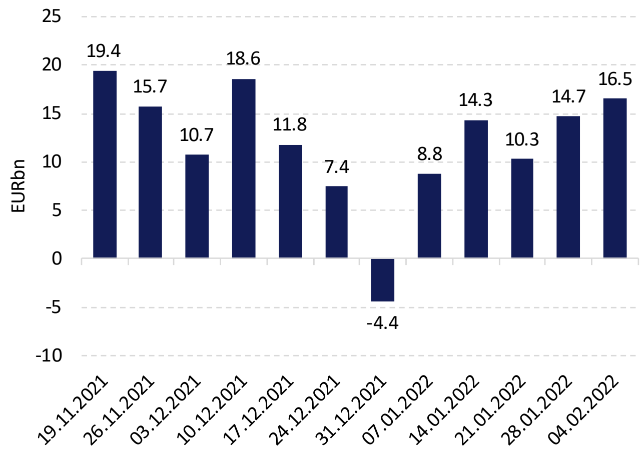
Assumed pace of purchases	Weekly net purchase volume	PEPP (theoretically) limit hit in …
Average weekly net purchase volume so far	EUR 17.0bn	12 weeks (29.04.2022)

Monthly net purchases (in EURm)

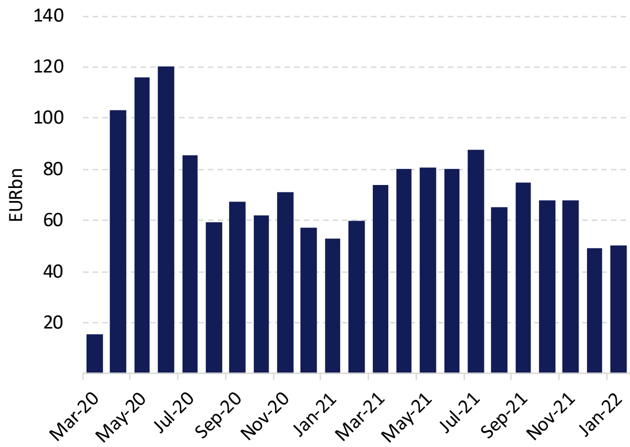


	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
∑	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	1,078,29
PEPP	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	837,467
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831

Weekly purchases



Development of PEPP volume

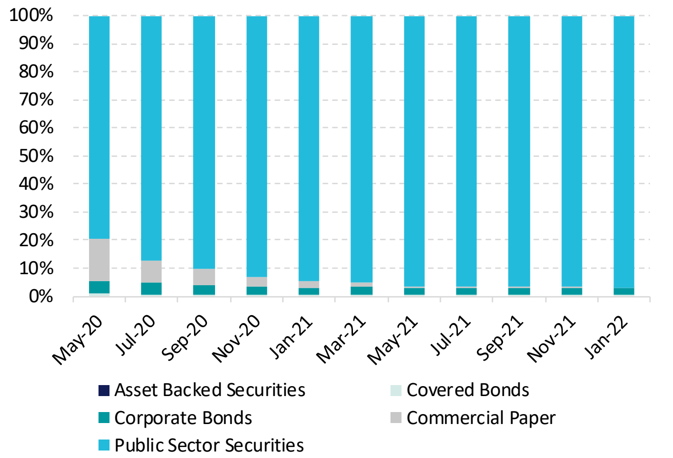


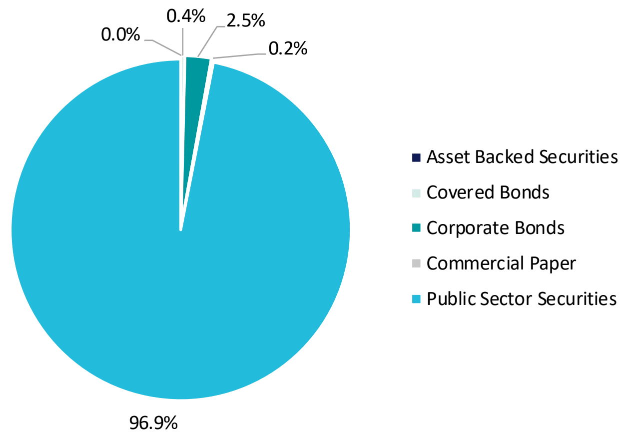
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

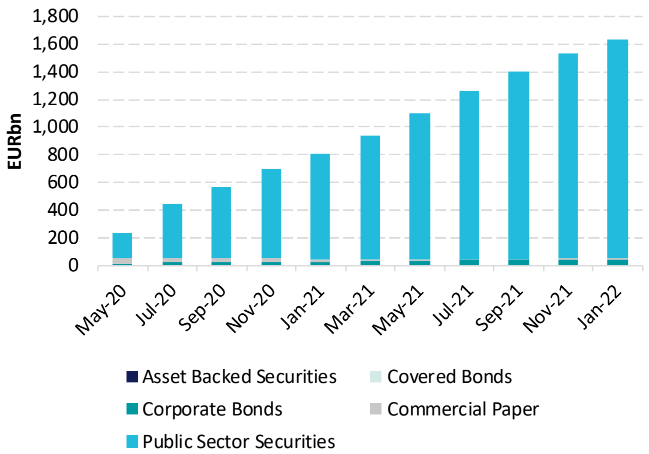
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Nov-21	0	6,079	39,871	4,032	1,485,526	1,535,508
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Δ	0	0	+467	-172	+99,193	+99,488

Portfolio structure

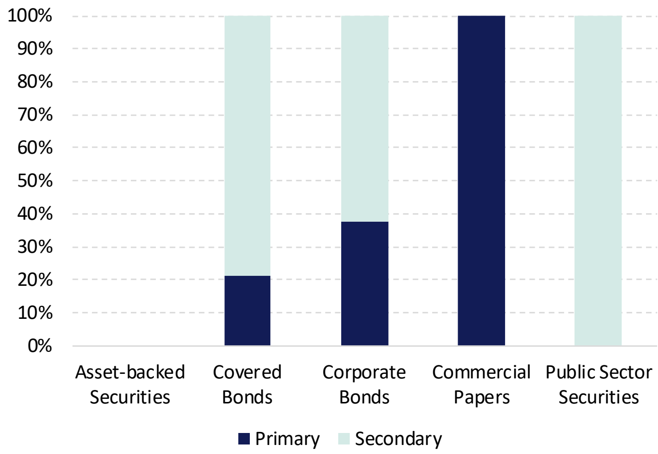




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

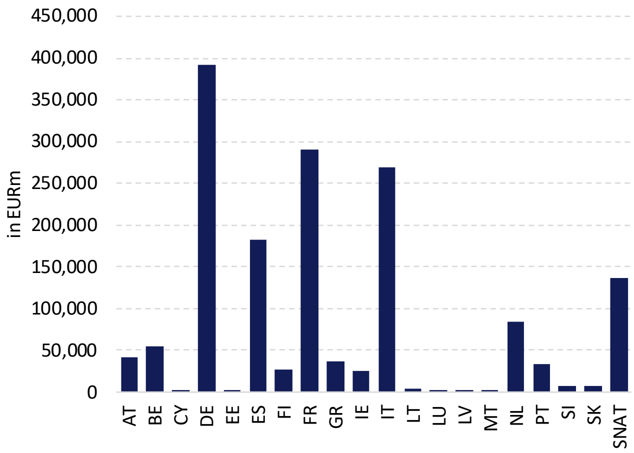
Jan-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,775	15,101	25,200	3,857	0
Share	0.0%	0.0%	21.4%	78.6%	37.5%	62.5%	100.0%	0.0%

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

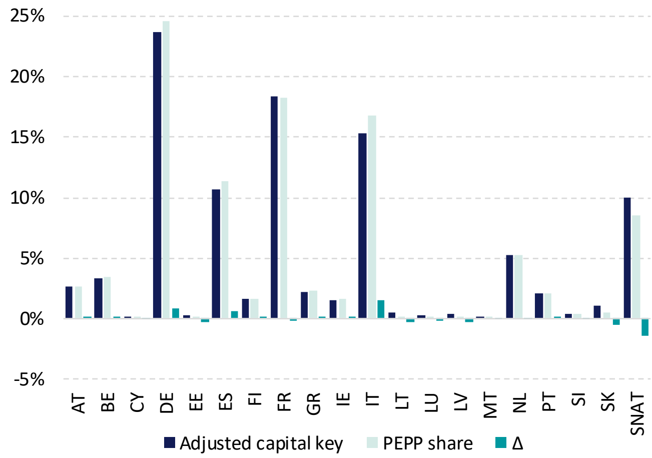
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	42,272	2.6%	2.6%	0.0%	8.2	7.0	1.2
BE	54,203	3.3%	3.4%	0.1%	6.6	9.2	-2.6
CY	2,514	0.2%	0.2%	0.0%	8.6	8.1	0.5
DE	392,570	23.7%	24.6%	0.9%	6.2	6.8	-0.6
EE	256	0.3%	0.0%	-0.2%	8.4	8.4	0.0
ES	181,624	10.7%	11.4%	0.6%	7.7	7.5	0.2
FI	26,807	1.7%	1.7%	0.0%	6.9	7.5	-0.7
FR	291,113	18.4%	18.2%	-0.2%	8.1	7.5	0.6
GR	36,876	2.2%	2.3%	0.1%	8.9	9.6	-0.7
IE	25,332	1.5%	1.6%	0.1%	8.9	9.5	-0.6
IT	268,405	15.3%	16.8%	1.5%	7.1	6.9	0.2
LT	3,129	0.5%	0.2%	-0.3%	10.5	10.1	0.4
LU	1,914	0.3%	0.1%	-0.2%	6.3	6.3	0.0
LV	1,710	0.4%	0.1%	-0.2%	9.3	9.2	0.0
MT	544	0.1%	0.0%	-0.1%	10.8	9.0	1.9
NL	83,893	5.3%	5.3%	0.0%	7.6	8.5	-0.9
PT	33,857	2.1%	2.1%	0.0%	6.9	7.3	-0.4
SI	6,311	0.4%	0.4%	0.0%	9.2	9.2	0.0
SK	7,605	1.0%	0.5%	-0.6%	9.2	8.4	0.8
SNAT	136,399	10.0%	8.5%	-1.5%	10.1	8.5	1.5
Total / Avg.	**1,597,334**	**100.0%**	**100.0%**	**0.0%**	**7.5**	**7.5**	**0.1**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



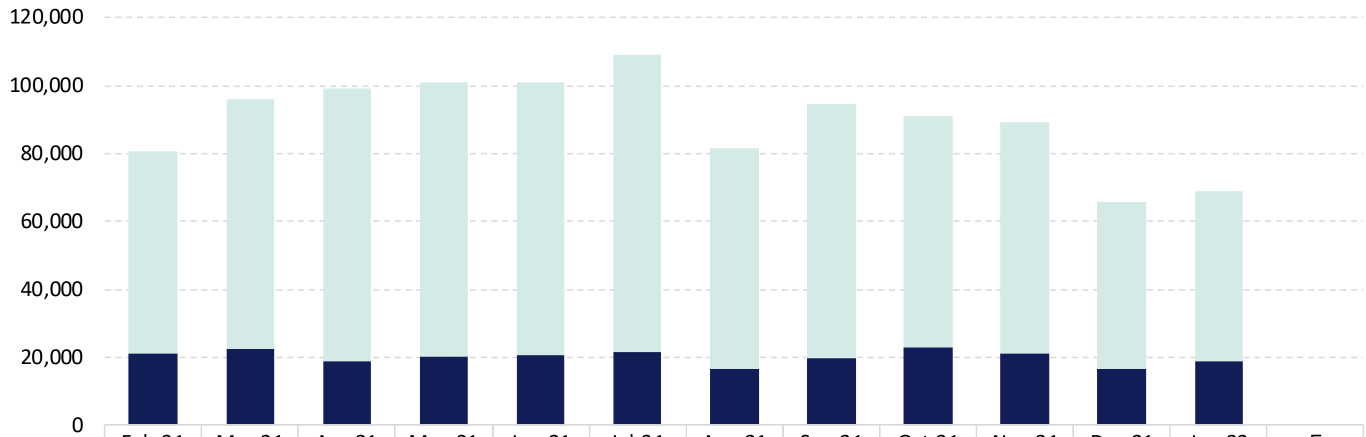
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

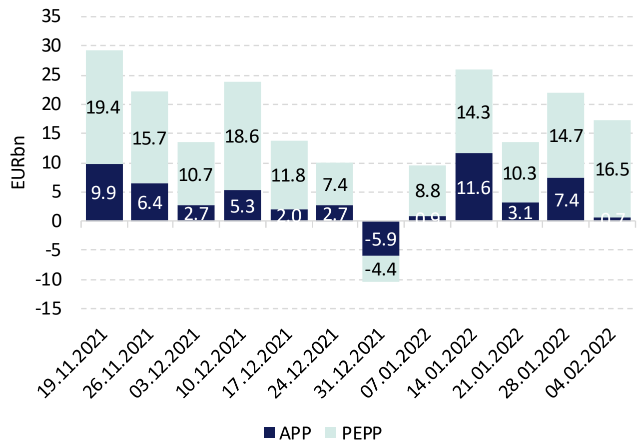
	APP	PEPP	APP & PEPP
Dec-21	3,123,382	1,597,565	4,720,947
Jan-22	3,142,221	1,647,678	4,789,899
Δ	+18,838	+50,113	+68,951

Monthly net purchases (in EURm)

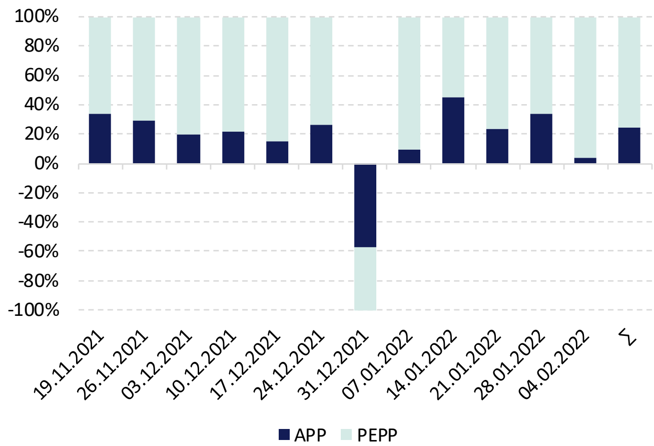


	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
∑	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	1,078,29
PEPP	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	837,467
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831

Weekly purchases



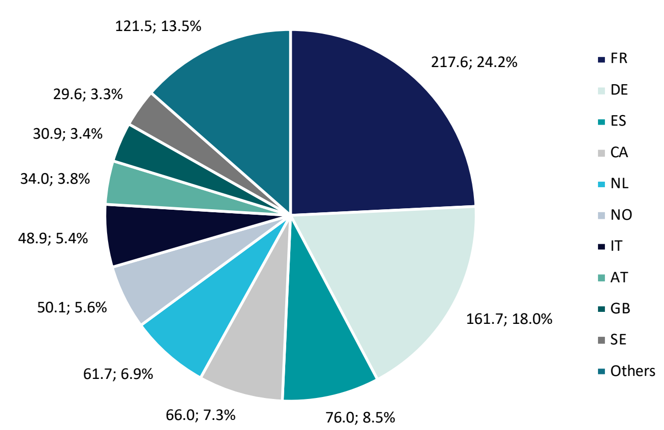
Distribution of weekly purchases



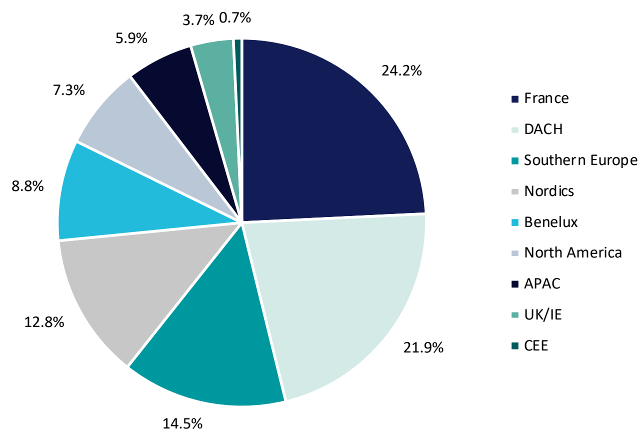
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



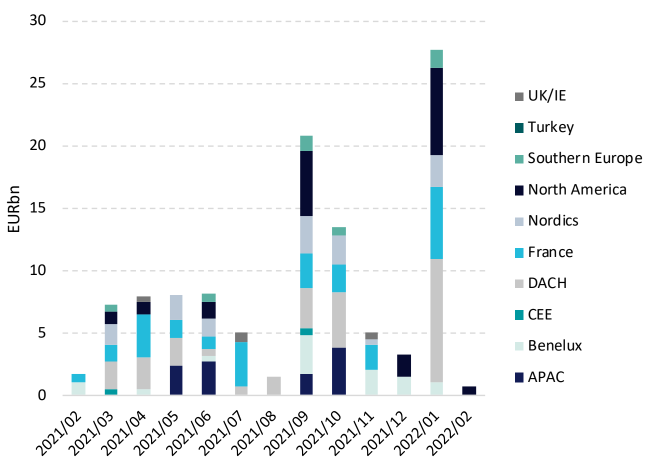
EUR benchmark volume by region (in EURbn)



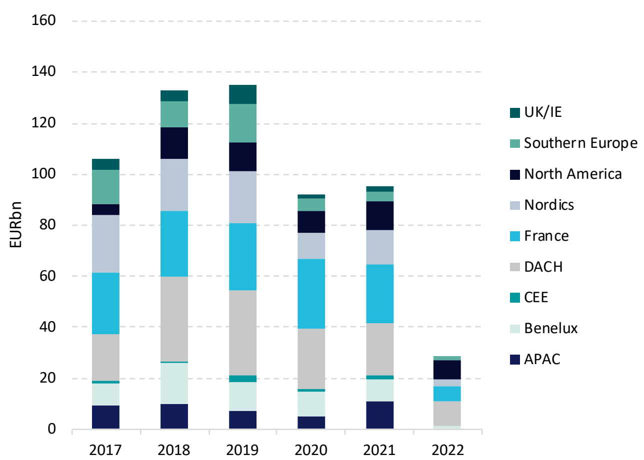
Top-10 jurisdictions

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	217.6	209	11	0.93	10.2	5.6	0.83
2	DE	161.7	238	16	0.62	8.4	4.6	0.41
3	ES	76.0	61	4	1.14	11.8	3.7	1.81
4	CA	66.0	55	0	1.16	6.0	3.3	0.21
5	NL	61.7	64	0	0.91	11.7	7.7	0.71
6	NO	50.1	58	9	0.86	7.4	4.0	0.38
7	IT	48.9	58	1	0.81	9.3	4.5	1.25
8	AT	34.0	63	2	0.54	9.9	6.3	0.53
9	GB	30.9	37	1	0.86	8.5	3.4	0.91
10	SE	29.6	36	0	0.82	7.6	3.4	0.41

EUR benchmark issue volume by month

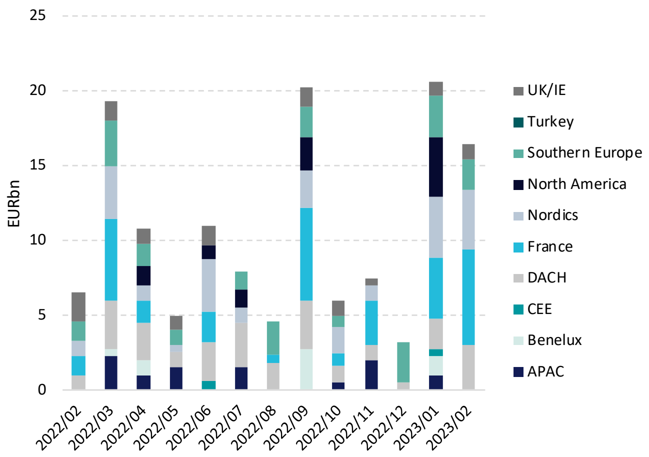


EUR benchmark issue volume by year

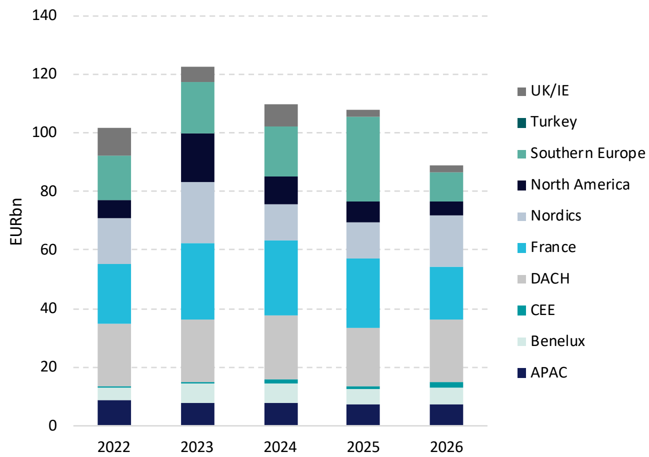


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

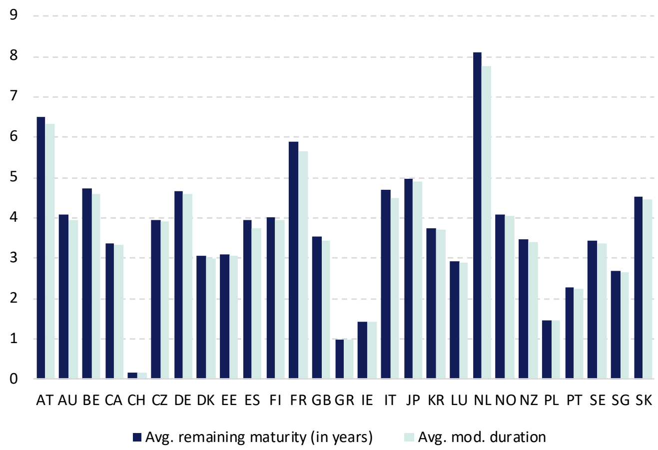
EUR benchmark maturities by month



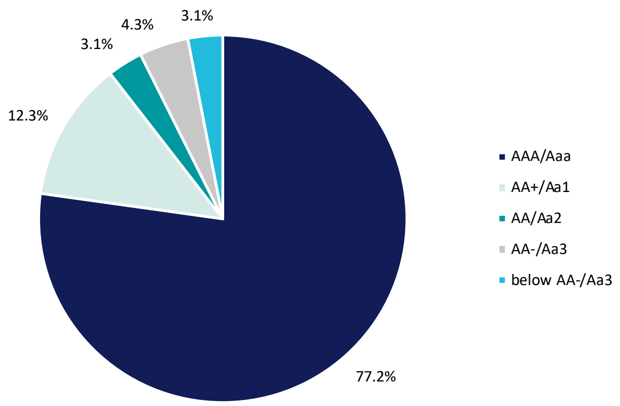
EUR benchmark maturities by year



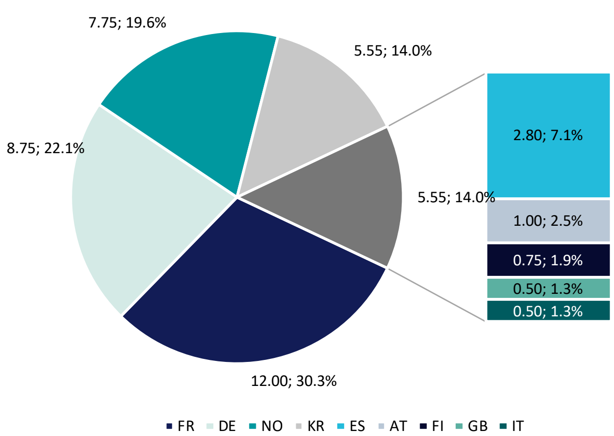
Modified duration and time to maturity by country



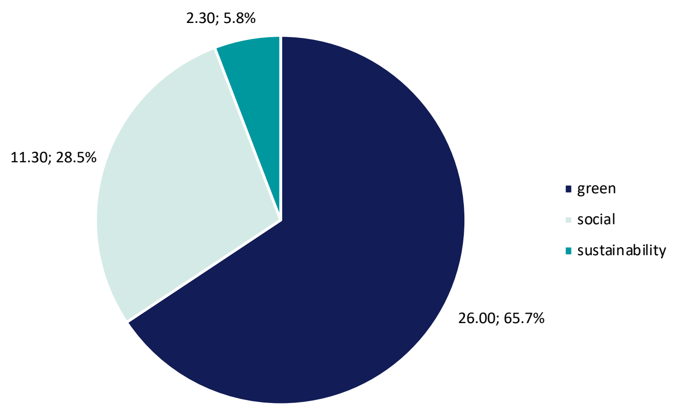
Rating distribution (volume weighted)



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

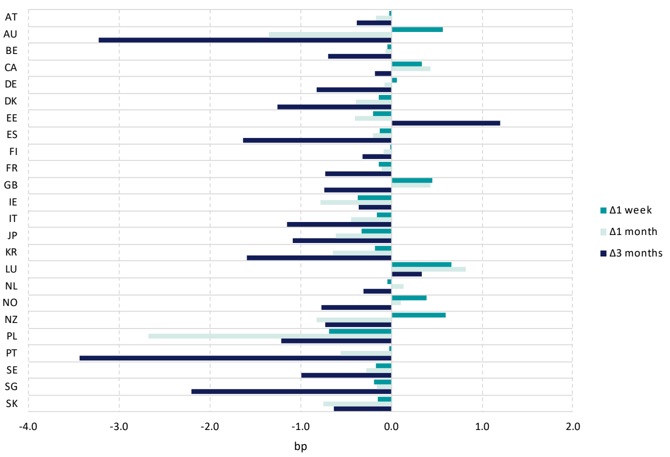


EUR benchmark volume (ESG) by type (in EURbn)

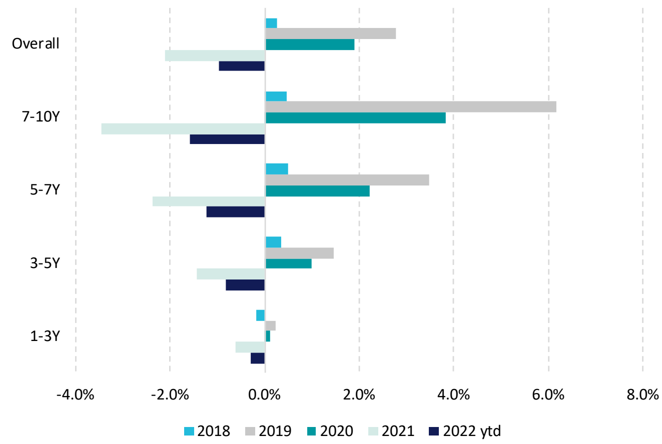


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

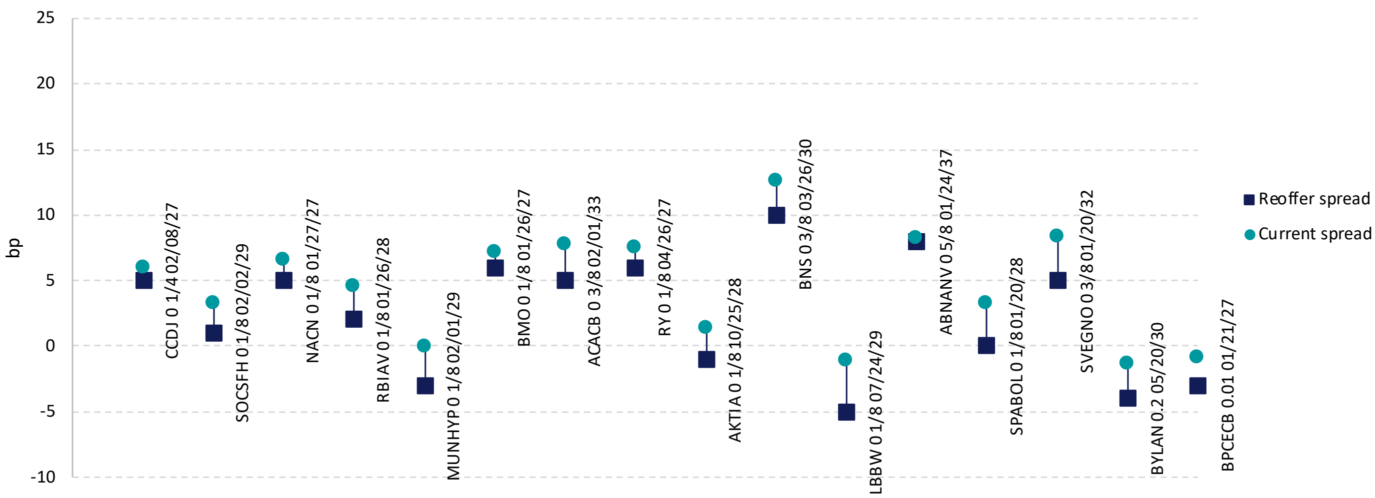
Spread development by country



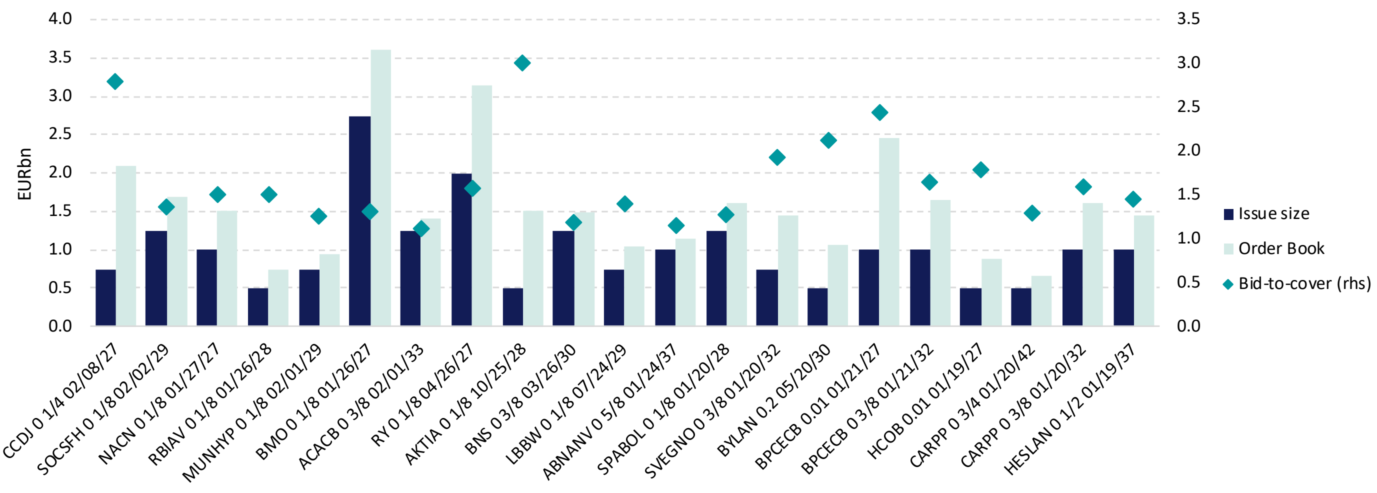
Covered bond performance (Total return)



Spread development (last 15 issues)



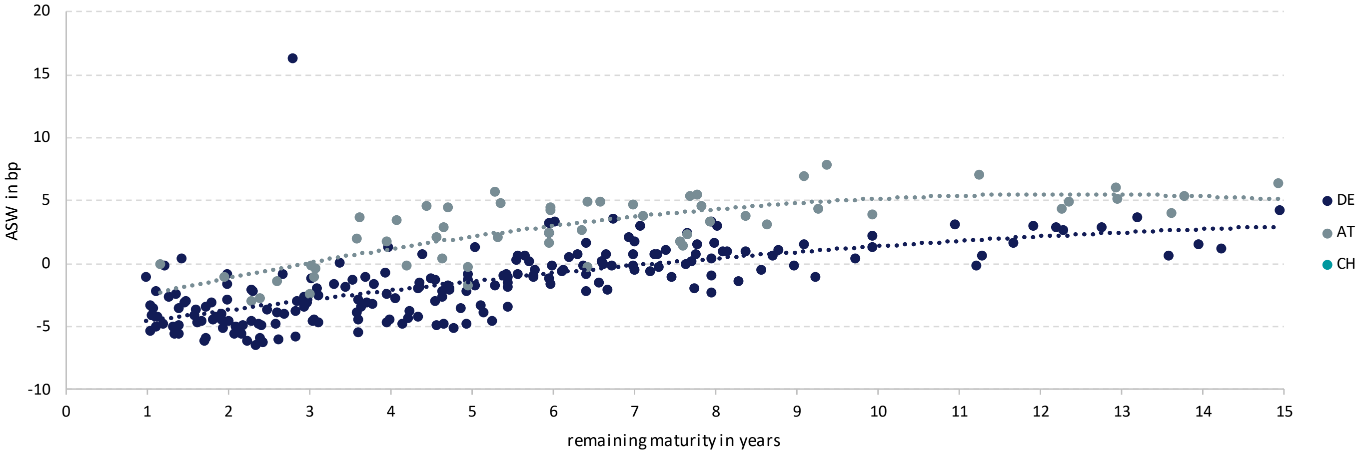
Order books (last 15 issues)



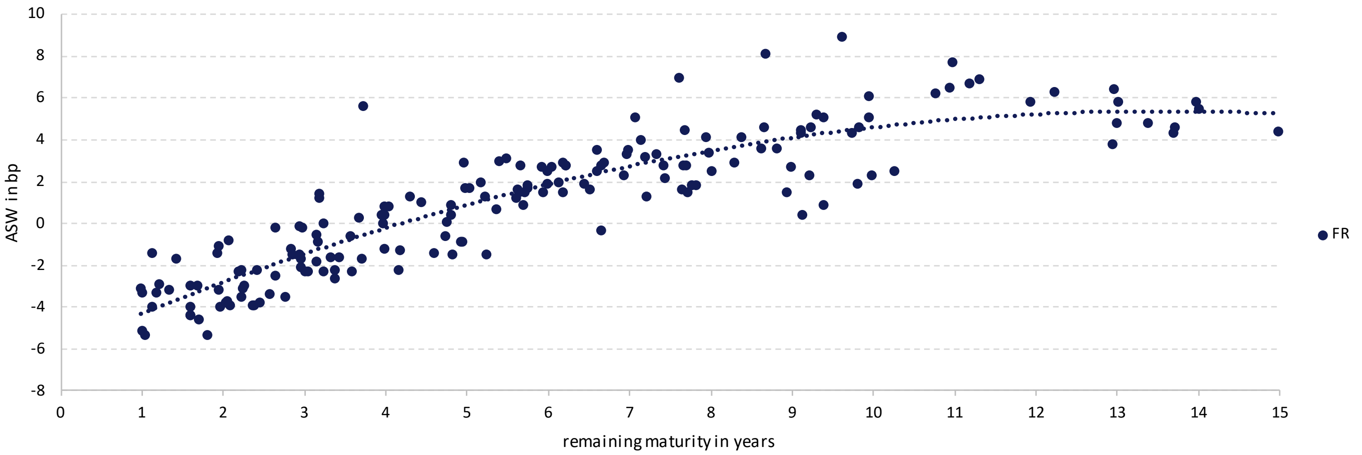
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

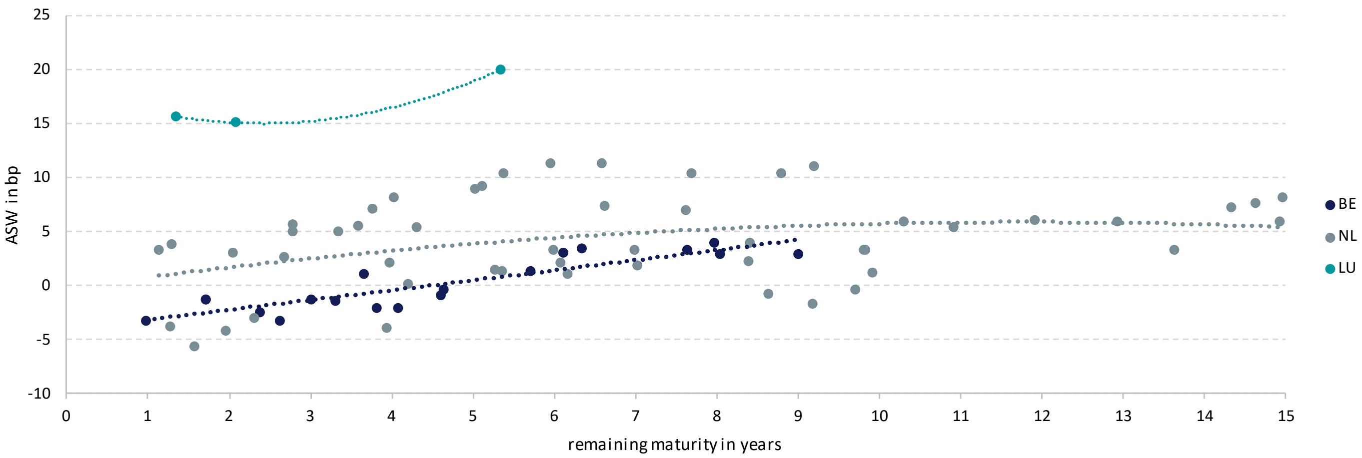
DACH



France



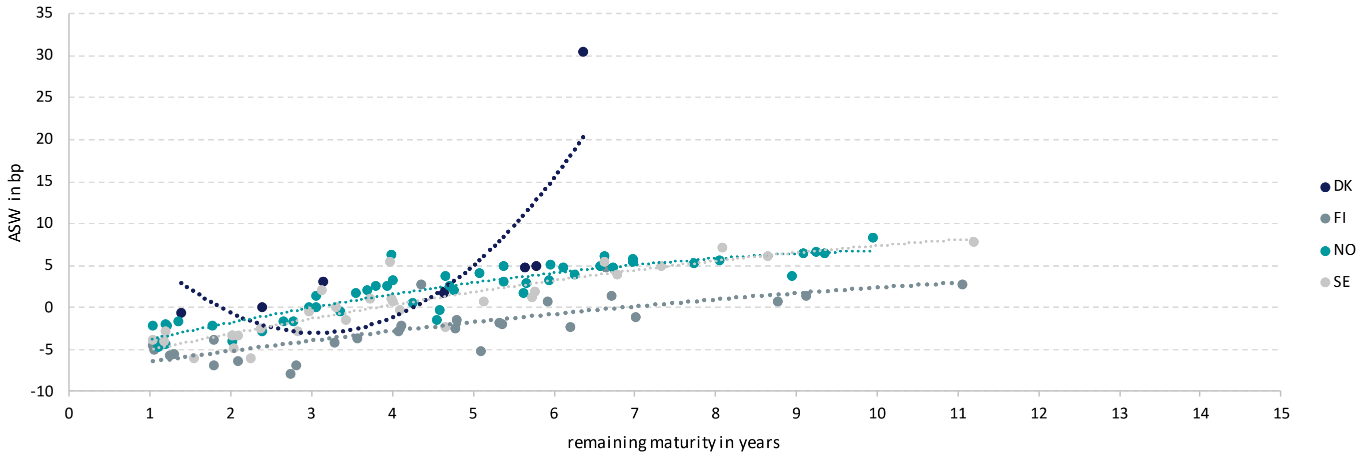
Benelux



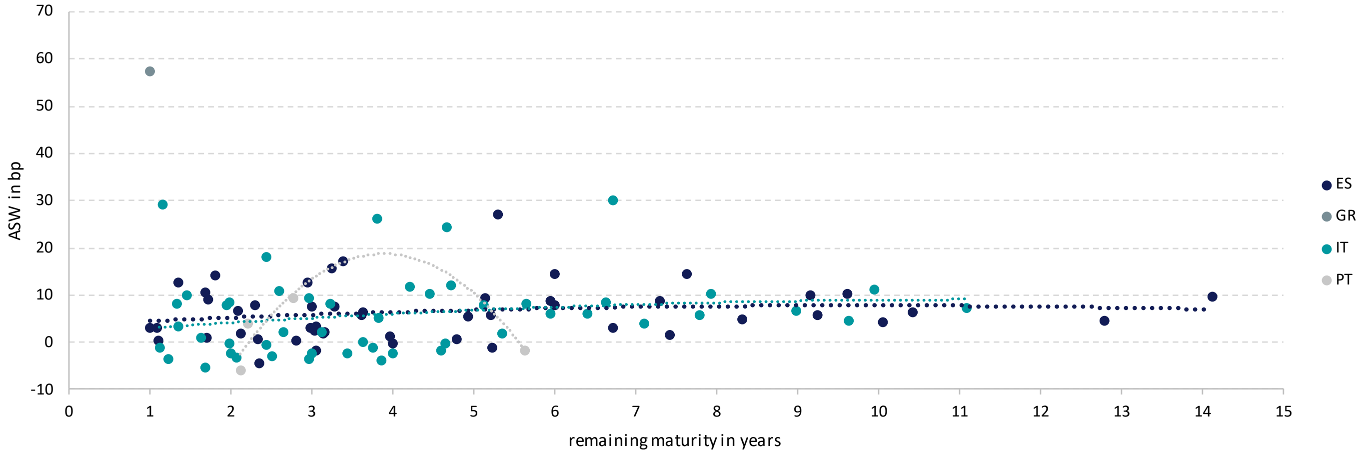
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

NORD/LB

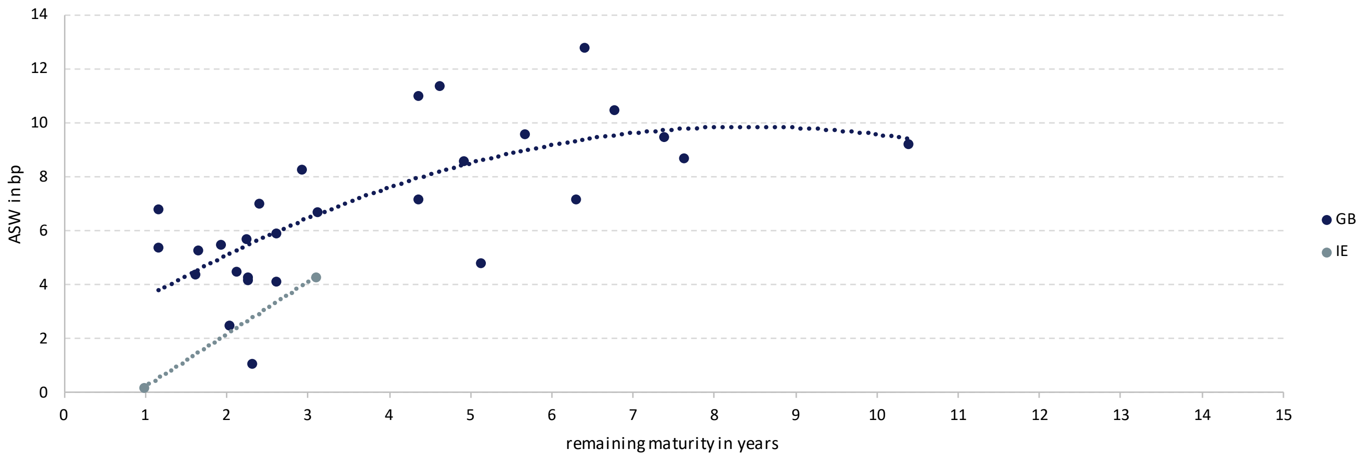
Nordics



Southern Europe

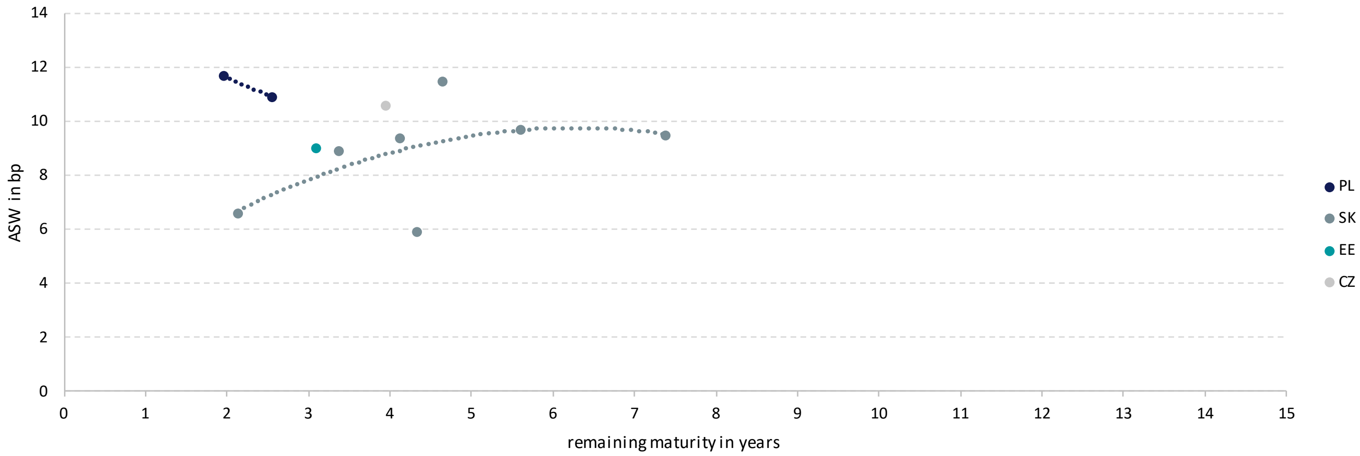


UK/IE

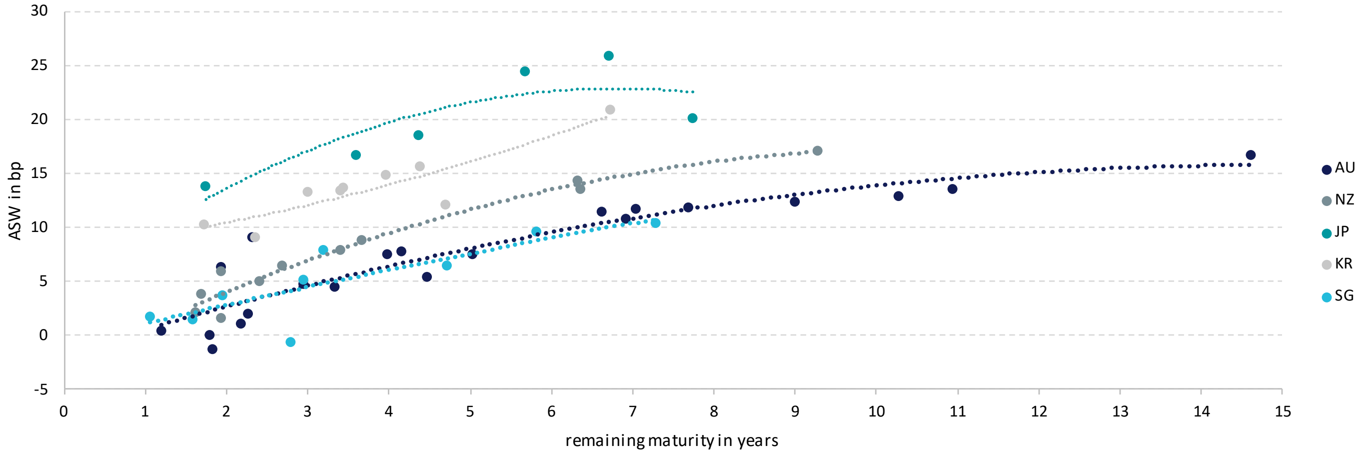


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

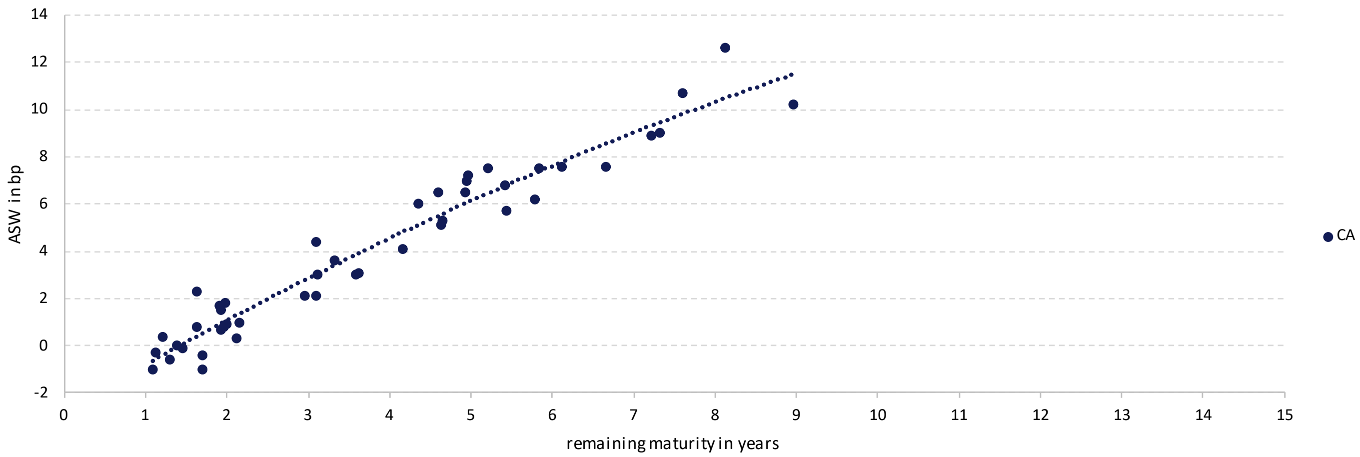
CEE



APAC



North America

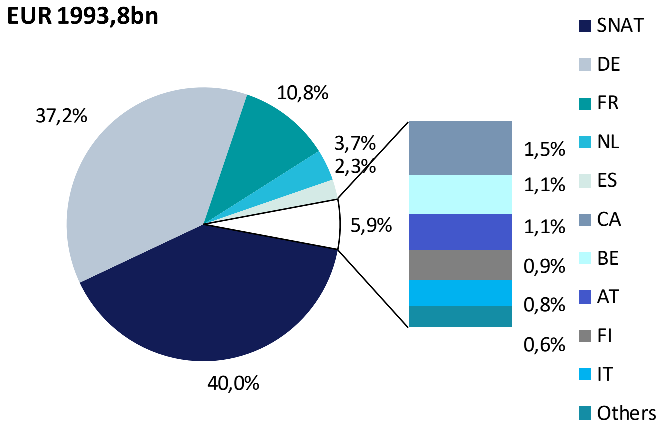


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Charts & Figures
SSA/Public Issuers

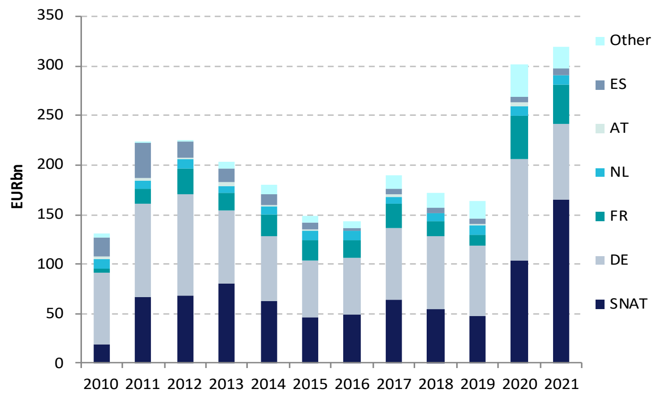
Outstanding volume (bmk)



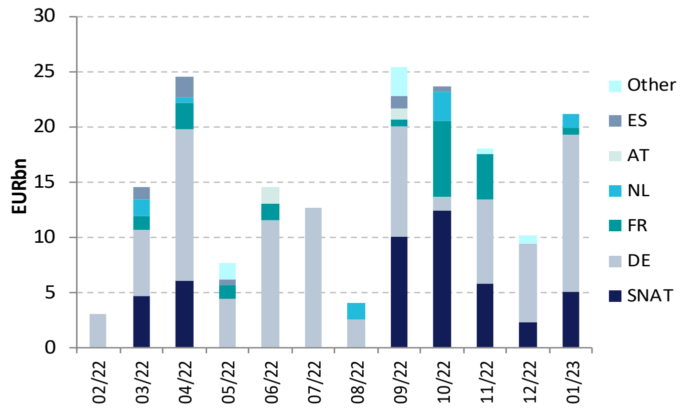
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	798,4	196	4,1	8,7
DE	741,7	574	1,3	6,8
FR	215,7	151	1,4	5,8
NL	73,7	69	1,1	6,7
ES	46,8	59	0,8	4,9
CA	30,7	21	1,5	5,4
BE	21,7	25	0,9	13,6
AT	21,2	23	0,9	4,8
FI	17,1	21	0,8	6,1
IT	15,0	19	0,8	5,4

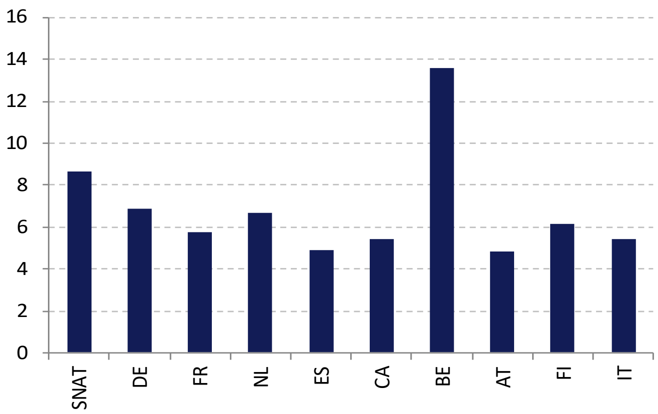
Issue volume by year (bmk)



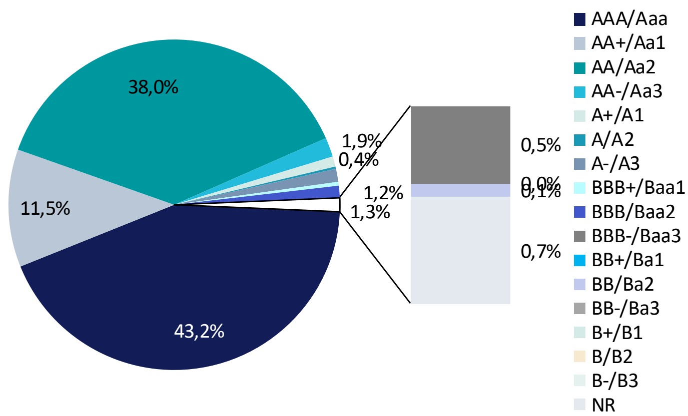
Maturities next 12 months (bmk)



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



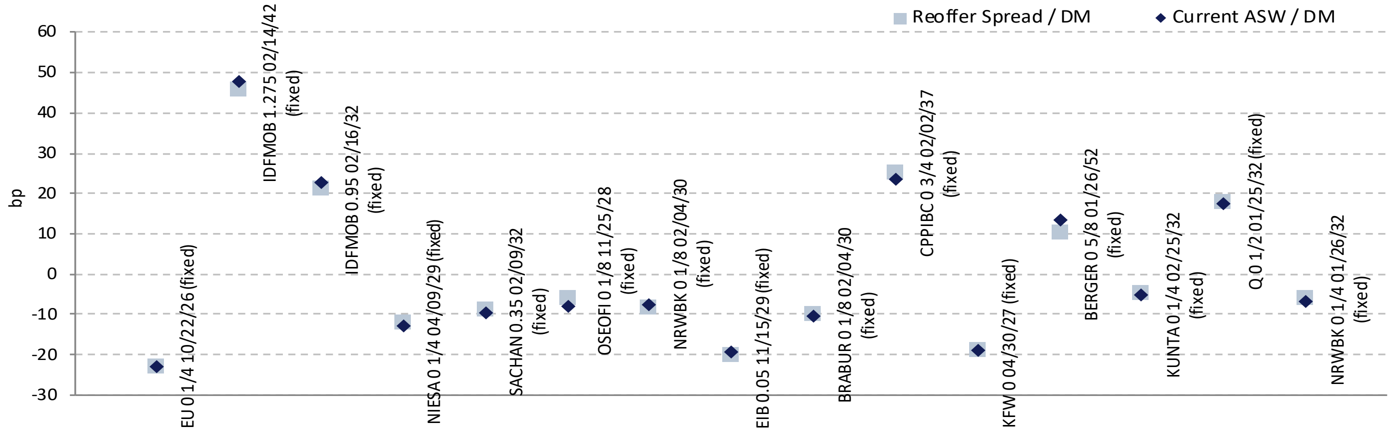
Rating distribution (vol. weighted)



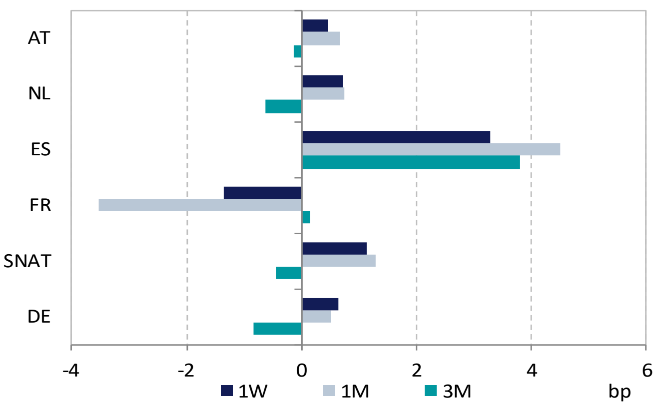
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

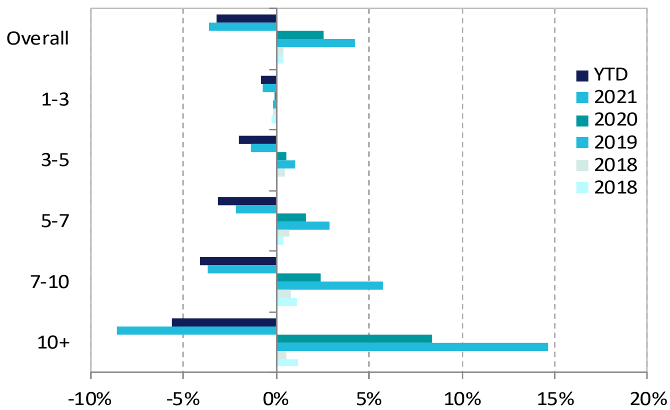
Spread development (last 15 issues)



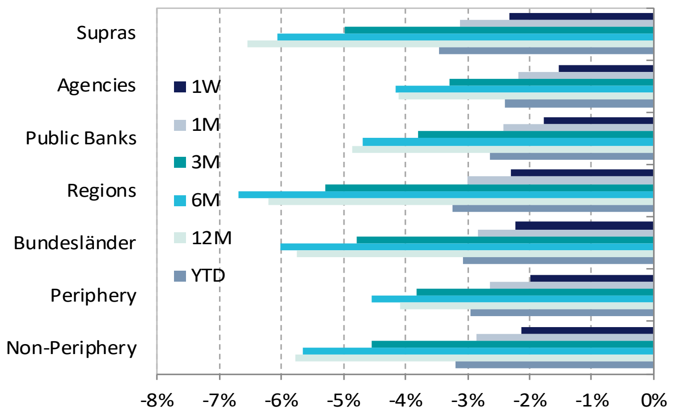
Spread development by country



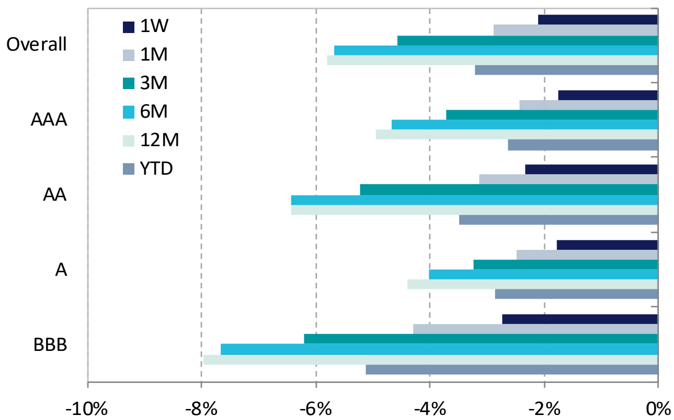
Performance (total return)



Performance (total return) by regions

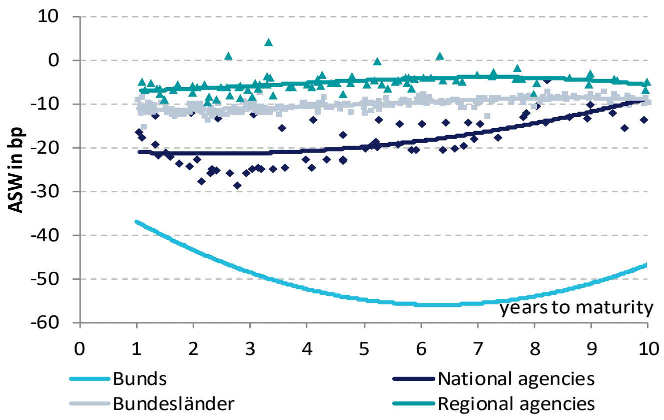


Performance (total return) by rating

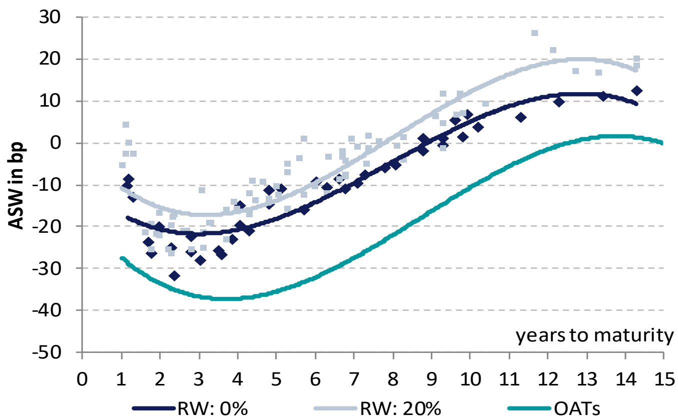


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

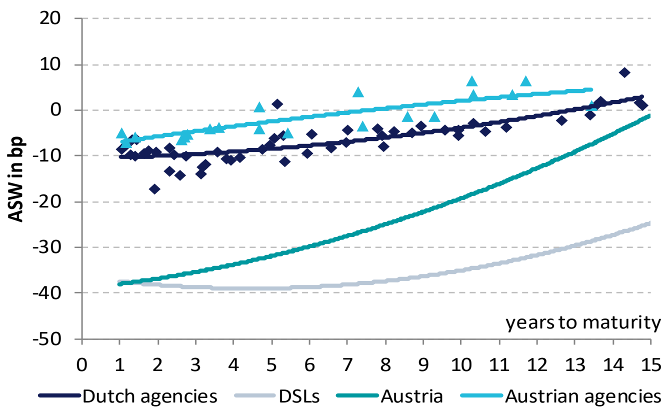
Germany (by segments)



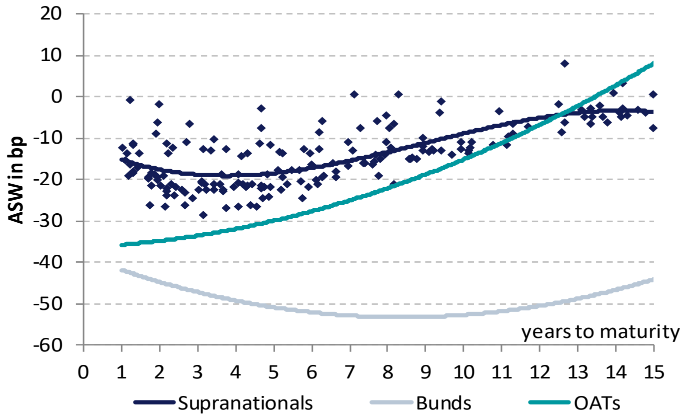
France (by risk weight)



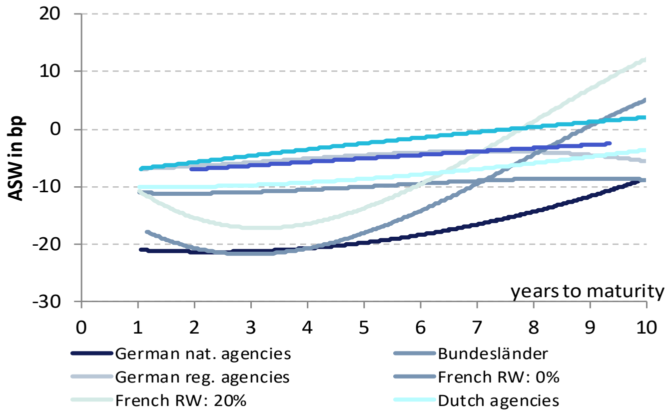
Netherlands & Austria



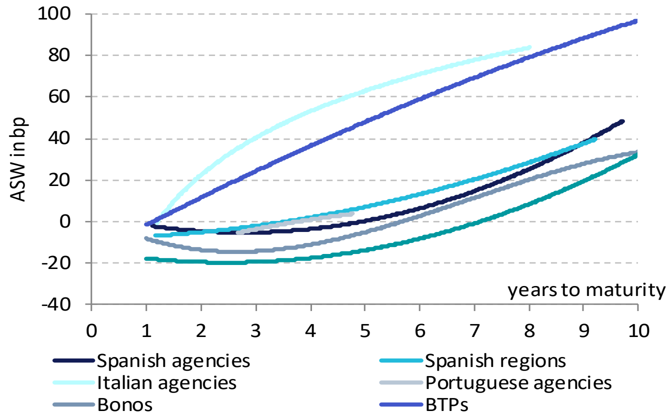
Supranationals



Core



Periphery



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

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
04/2022 ♦ 02 February	▪ Covered Bonds – Review of January 2022: a reversion to old patterns does not always have to be bad ▪ SSA – New year, new hope? Less oomph to kick off the new year
03/2022 ♦ 26 January	▪ ECB preview: 10y Bund spotted in positive terrain. What's next? ▪ EUR benchmark segment in Canada: our supply forecast already null and void
02/2022 ♦ 19 January	▪ Spotlight on the EUR benchmark segment: a look at the covered bond markets in Belgium and the Netherlands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody's covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record
40/2021 ♦ 15 December	▪ ECB preview: End of PEPP, booster for APP?! ▪ Our view of the covered bond market in 2022 ▪ SSA Outlook 2022: Public sector caught between ECB & COVID
39/2021 ♦ 08 December	▪ The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations ▪ The Moody's rating approach
38/2021 ♦ 01 December	▪ United Kingdom: Spotlight on the EUR benchmark segment ▪ Beyond Bundeslaender: Region Pays de la Loire (PDLL)
37/2021 ♦ 24 November	▪ Benchmark deals outside the euro: momentum has returned! ▪ Transparency regulations under Section 28 of the Pfandbriefgesetz (PfandBG - German Pfandbrief Act) Q3 2021 ▪ Beyond Bundeslaender: Auvergne-Rhône-Alpes Region (ARA)
36/2021 ♦ 17 November	▪ Primary market forecast 2022: time for a comeback? ▪ Development of the German property market ▪ Beyond Bundeslaender: Spotlight on Belgian regions
35/2021 ♦ 10 November	▪ PEPP approaching notional end – will the APP be pepped up? ▪ Spain's major move – will the amended covered bond legislation breathe new life into the market?
34/2021 ♦ 03 November	▪ Repayment structures on the covered bond market: EU harmonisation is already leaving its mark ▪ Beyond Bundeslaender: Spanish regions in the spotlight
33/2021 ♦ 27 October	▪ Insurance firms as covered bond investors: A look at Solvency II and EIOPA statistics ▪ The Scope rating approach
32/2021 ♦ 20 October	▪ ECB preview: interim step before a landmark December? ▪ ECBC publishes annual statistics for 2020 ▪ Covered bonds in the context of the ECB collateral framework
31/2021 ♦ 22 September	▪ Covered bond primary market: a September to remember ▪ Announcement: Issuer Guide German Laender 2021

NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

Risk weights and LCR levels of covered bonds

Transparency requirements §28 PfandBG

Transparenzvorschrift §28 PfandBG Sparkassen (German only)

SSA/Public Issuers:

Issuer Guide – German Bundeslaender 2021

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – Supranationals & Agencies 2019

Issuer Guide – Down Under 2019

Fixed Income:

ESG update

Analysis of ESG reporting

ECB decision: PEPP benched for now, APP comes in as Point Guard

ECB holds course, but ups the ante – PEPP running until 2022

ECB launches corona pandemic emergency

Appendix
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Sales Sparkassen & Regionalbanken	+49 511 9818-9400
Sales MM/FX	+49 511 9818-9460
Sales Europe	+352 452211-515

Trading

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

Origination & Syndicate

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

Sales Wholesale Customers

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

Treasury

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

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Additional information
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None

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Breakdown of recommendations (12 months)

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Issuer / security	Date	Recommendation	Bond type	Cause