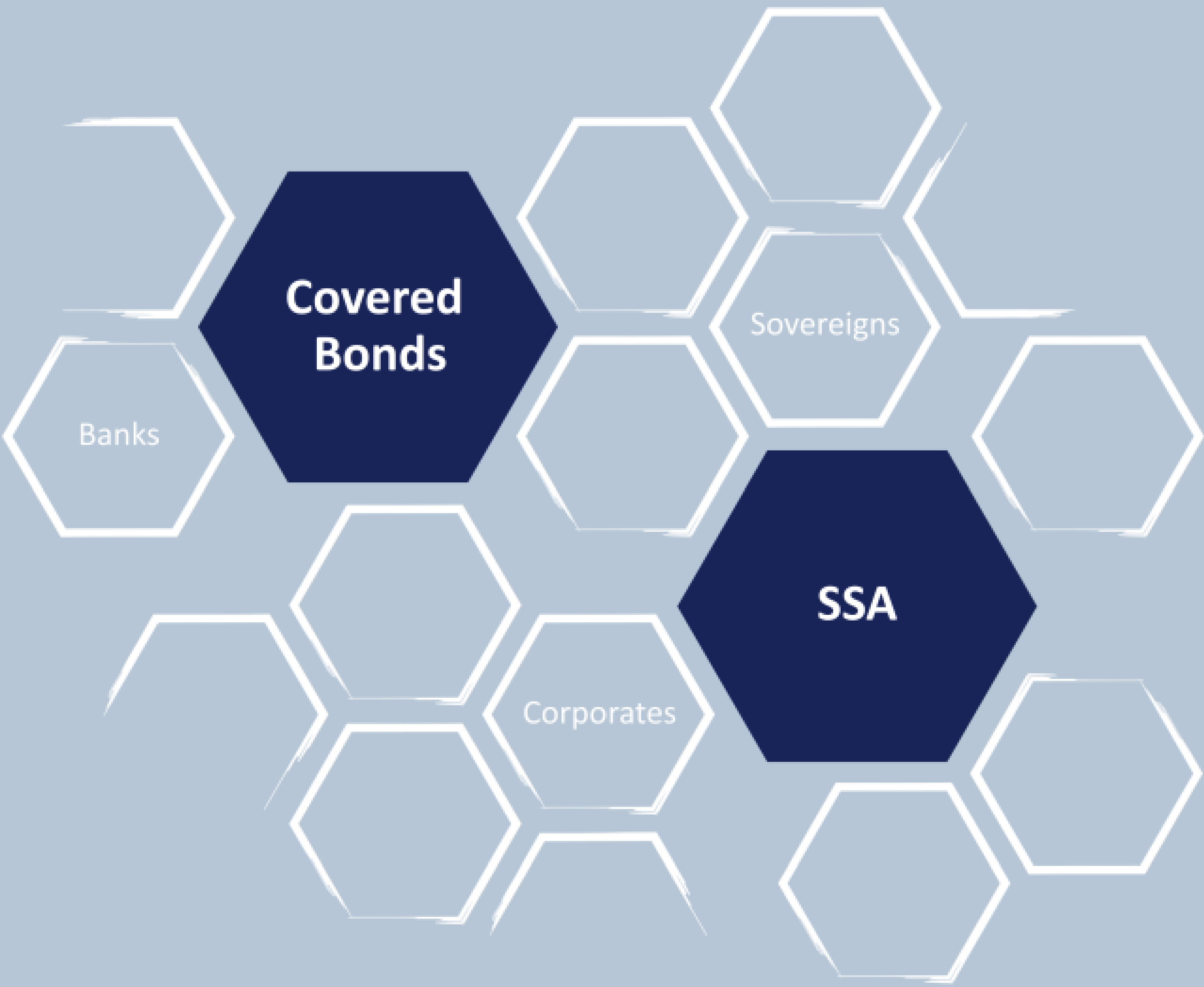


Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

16 March 2022 ♦ 10/2022

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

Agenda

Floor analysts:

Covered Bonds/Banks

Dr Frederik Kunze
frederik.kunze@nordlb.de

Melanie Kiene, CIIA
melanie.kiene@nordlb.de

SSA/Public Issuers

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

Jan-Phillipp Hensing
jan-phillipp.hensing@nordlb.de

Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

Primary market: Issuers take full advantage of deal window

Over the past five trading days, the group of active jurisdictions on the primary market in the year so far was extended with the addition of deals from Singapore, Slovakia, South Korea and New Zealand. On Wednesday, United Overseas Bank (UOB) approached investors with a benchmark deal denominated in EUR. In so doing, it selected a short term of just three years that is now not so unusual on the market. The EUR 1.5bn bond attracted orders of EUR 1.7bn and was placed on the market at ms +7bp (guidance: ms +11bp area). This deal is the largest EUR benchmark from Singapore to date. Also from the APAC region, National Australia Bank (NAB) made an appearance on the market on the same trading day by placing a covered bond worth EUR 1.5bn at ms +12bp, which was also at the level of the initial guidance. As already discussed in our Covered Bond & SSA View from a fortnight ago, the Italian Banco BPM had already been lining up its first green covered bond for a few days. The bank used the issuance window on Wednesday to place its deal with a final size of EUR 750m (5y). The initial target had been for a volume of at least EUR 500m. However, owing to the order situation, the deal size was revised upwards, despite the challenging market environment. Following initial guidance in the area of ms +25bp, the final spread settled at ms +23bp. With this transaction, our understanding is that BPM has been able to significantly expand its own investor basis. After the primary market went into standby mode while the ECB meeting took place, issuers waited until the start of the new week before making moves in the market again. AXA Home Loan SFH from France (cf. NORD/LB Issuer View) successfully used this opportunity to market a benchmark worth EUR 500m (WNG; 4.6y). The bond was eventually priced at ms +5bp and therefore tightened by four basis points versus initial guidance. The order book in the amount of EUR 1.4bn (bid-to-cover ratio: 2.8x) reflected the high level of demand. The first market appearance in 2022 from New Zealand came from ANZ New Zealand (ANZ NZ), which offered a bond with a volume of EUR 750m (3y) at ms +15bp (guidance: ms +17bp area). Orders totalling EUR 930m therefore produced a bid-to-cover ratio of 1.3x. The EUR benchmark issued by the Korea Housing Finance Corporation (KHFC) also stood out on Monday. This was another benchmark-size deal from the APAC region and second ESG issue seen over the past five trading days. The issuer placed its social bond worth EUR 600m (maturity: 3y; order book: EUR 660m) with a re-offer spread of ms +18bp (guidance: ms +20bp area). We were also pleased to see the Slovakian bank Vseobecna Uverova Banka (VUB) on the market. Its benchmark for EUR 500m (5y) was issued at ms +18bp and generated orders in the amount of EUR 600m. The issuance window remained open yesterday (15.03.), meaning that two further deals could be processed during the day's trading. HSBC France SFH offered an additional deal from France to investors. The bond was eventually priced at EUR 1.5bn (5y) at ms +10bp (guidance: ms +13bp area) and attracted orders of EUR 1.55bn. For its part, Royal Bank of Canada (RBC) selected a term to maturity of four years for its benchmark. During the marketing phase, the deal started out in the area of ms +12bp before ultimately being priced at ms +9bp with a volume of EUR 2bn (order book: EUR 2.13bn),

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Royal Bank of Canada	CA	15.03.	XS2460043743	4.0y	2.00bn	ms +9bp	AAA/Aaa/-	-
HSBC SFH France	FR	15.03.	FR00140099G0	5.0y	1.25bn	ms +10bp	-/Aaa/AAA	-
VUB	SK	14.03.	SK4000020491	5.0y	0.50bn	ms +18bp	-/Aa1/-	-
KHFC	KR	14.03.	XS2442748971	3.0y	0.60bn	ms +18bp	-/-/AAA	X
ANZ NZ	NZ	14.03.	XS2459053943	5.0y	0.75bn	ms +15bp	AAA/Aaa/-	-
AXA Home Loan SFH	FR	14.03.	FR00140098T5	4.6y	0.50bn	ms +5bp	AAA/ - /AAA	-
Banco BPM	IT	09.03.	IT0005489932	5.0y	0.75bn	ms +23bp	-/Aa3/-	X
UOB	SG	09.03.	XS2456884746	3.0y	1.50bn	ms +7bp	-/Aaa/AAA	-
NAB	AU	09.03.	XS2450391581	5.0y	1.50bn	ms +12bp	AAA/Aaa/-	-

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

Implications of the last five trading days

The issuance volume over the past five trading days totals EUR 9.35bn. The aggregated order book volumes amount to EUR 12.36bn overall, which would tend to imply a lower level of calculated demand in comparison with the start of the year. This view of the situation is also reflected in the metrics we regularly review in this publication. The average bid-to-cover ratio for these latest nine deals (1.4x) as well as the average new issue premium applied (last nine deals: 5.0bp; average YTD: 2.5bp) are striking. The eye is also drawn to the maturities selected. At the beginning of the year, we did not necessarily expect such a large number of deals to be accumulated in the maturity segment of less than five years. In terms of the secondary market performance, we remain somewhat sceptical - especially in relation to the informative value of screen prices. Nevertheless, we would summarize that the primary market levels are gradually arriving on the secondary market as well, even if one or the other NIP may have been a bit too generous.

S&P: Increased transparency from ESG credit indicators

As the rating agency S&P Global Ratings announced last week, it is planning to gradually start publishing ESG credit indicators from this quarter onwards for covered bond programmes as well. The rating agency explicitly points out that these are certainly not sustainability ratings and that the ESG credit indicators will not have any impact on existing credit ratings. Rather, the question would be to what extent ESG credit indicators have an exposure to the ESG factors that can influence creditworthiness. They therefore serve to reflect the way in which ESG factors feed into the credit analyses carried out by S&P. The introduction of ESG credit indicators is an attempt by S&P to satisfy increasing demand from investors for ESG criteria. These criteria have already been implemented in the ratings for companies, infrastructure, banks and insurance firms. This expands the descriptive part of the previous rating analysis with the addition of clearly understandable and easily comparable factors (see table below). The system used by S&P is based on separate credit indicators for the E, S and G constituent parts, which each range from one to five (e.g. E-1 through to E-5) and indicate the extent and direction of the influence on the credit analysis. The assessment is not about providing an evaluation of how the company ranks in relation to its own ESG performance. Instead, they reflect a qualitative assessment of whether there is a negative, positive, or neutral impact on the key components of the rating analysis. For example, a neutral ESG indicator does not necessarily mean that ESG criteria play no part, but rather that at present this does not have a material impact on the rating.

Influence on credit rating analysis	Environmental indicator	Social indicator	Governance indicator
Positive	E-1	S-1	G-1
Neutral	E-2	S-2	G-2
Moderately negative	E-3	S-3	G-3
Negative	E-4	S-4	G-4
Very negative	E-5	S-5	G-5

Source: S&P Global Ratings, NORD/LB Markets Strategy & Floor Research

DBRS takes stock: Impact of COVID-19 on the European covered bond market

The rating agency DBRS recently discussed the influence of the COVID-19 pandemic on European covered bonds as part of a comment piece. Overall, DBRS assesses the downside risks arising from the COVID-19 pandemic for the 26 DBRS-rated European covered bond programmes to be manageable. Theoretically, downgrades could have been caused by deteriorating sovereign ratings for the respective domestic market or declining credit quality of the underlying cover pool and the credit quality of the issuer. Based on the macroeconomic environment, DBRS takes the view that negative consequences for covered bond ratings due to changes at the level of sovereign ratings are unlikely. The OC ratios of the cover pools also indicate that covered bond ratings should remain stable and do not imply that there is any downwards pressure in the area of asset quality. While DBRS expects the greatest pressure to come from issuer ratings and issuer credit quality, the downside risk remains limited here as well due to existing OC levels. Nevertheless, DBRS does see risks to economic activity in connection with the Russian invasion of Ukraine, which from the rating agency's perspective could place ratings under pressure. We share the assessment of DBRS that the impact of COVID-19 on covered bond credit quality remains limited. In addition, the withdrawal of the extensive support measures should therefore not result in any collateral damage.

Market overview
SSA/Public Issuers

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

Teaser: Digital ESG event (German only)

As an exception, we are not starting with the ECB meeting for once but would like to give you the option of becoming more familiar with Moody's approach to ESG assessments tomorrow, at 3.00pm (CET) on 17 March.

Agenda:

- Moody's & ESG: Overview of business segments and products
- Insight into ESG assessments
- Taking account of ESG risks in credit ratings
- Assessments of green / social / sustainable bonds

The event will take place via Microsoft Teams and will be conducted in German (only). We look forward to your joining us and a lively discussion in the subsequent hot button session. Should you still not have received your invitation, please contact us – we will be happy to hear from you (event-markets@nordlb.de).

Face-saving ECB decision: Hawks have won – for now

At last Thursday's meeting of the Governing Council, the ECB was faced with some difficult issues in view of the war in Ukraine and fears about its macroeconomic impact. In the light of the significant increase in inflationary pressures even before the war started, the monetary authorities have, however, made a few changes to their monetary policy focus. In particular, these will affect the course of the APP purchase programme and forward guidance concerning interest rates. However, key interest rates naturally remained unchanged. According to our Chief Economist, the ECB referred to the fact that in addition to depressing economic activity, the war in Ukraine also posed the significant risk of even higher inflation. The new forecasts reflect this: the inflation forecast for 2022 was raised sharply once more from 3.2% to 5.1%, while growth in GDP is only expected to be slightly weaker, at 3.7%, this year. From our perspective, this is still a relatively optimistic scenario. The ECB transmitted a few generally hawkish signals with its new resolutions: in response to inflation being higher than expected, the Governing Council amended the course of the APP's purchases; having originally planned to run the programme until the end of the year to provide support as purchases were discontinued under the PEPP, the ECB currently plans to increase purchases and then reduce them up to the end of June. This is an appropriate and important step on the path to normalising monetary policy. The easing bias was also dropped in the forward guidance concerning key interest rates. The phase of favourable rates for TLTRO III operations is to end as planned. However, since future developments in Ukraine and the macroeconomic implications are very uncertain, the Governing Council is initially proceeding cautiously and at the same time attaching great importance to flexibility. Prior decisions reaching far into the future would also not be very helpful in the "fog of war". However, the ECB is prepared to wind down net purchases under the APP entirely in Q3 unless economic framework conditions preclude this.

Previous path of the ECB

- 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 APP 2022: **EUR 330bn**

New path (our interpretation)

- By end of Q1: Discontinuation of PEPP, EUR 1,850bn not exhausted
- Q1 2022: APP is at EUR 20bn per month
- *April: APP doubles to EUR 40bn*
- *May: APP is reduced to EUR 30bn*
- *June: APP back at EUR 20bn (no end date)*
- *Further reduction in Q3, potentially in steps of EUR 5bn each*
- *Q4 2022: First interest rate hike by 25 basis points*

Total APP 2022: **EUR 150-180bn**

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

ECB still keeping all its options open and will be guided more by data from Q3

The crisis also means that financial market stability and liquidity have, as expected, come to the fore for the monetary authorities and will be addressed by, among other things, extending the liquidity lines with central banks outside the Eurozone until the beginning of 2023. Ultimately, the ECB's message was not uniform in that it did apply the brakes somewhat with regard to the possible course of interest rates once net bond purchases end. Firstly, the close link between the timing of an initial rate hike and the end of APP net purchases was eased and, secondly, the ECB will adopt a gradual and increasingly data-dependent approach to adjusting key interest rates. At the press conference, ECB President Christine Lagarde stressed that this was not a case of tightening monetary policy strongly but rather of normalising it. However, the ECB is ready to adjust all instruments if necessary to ensure price stability. We also expect inflation forecasts to be revised upwards once more and lower forecasts for this year's economic growth in three months (June meeting). We are also counting incorrigibly on a rapid easing of the geopolitical situation. After that, our thoughts will be increasingly focused on monetary policy again.

Two things concerning us at present: COVID-19 …

As a result of unprecedented infection figures and the absences from work associated therewith, the Omicron wave is a new factor depressing the economy, the extent of which has been estimated by the KfW in a current study. Infections and quarantine arrangements are likely to prevent around 1.2% of the workforce from working during the current quarter. If these figures are extrapolated, the days lost total approximately 33 million days. The economic output reported in GDP is far less significantly affected by COVID-19. However, Russia's war of aggression has emerged as an additional concerning issue. "A recession is becoming ever more likely. The war in Ukraine and the sanctions against Russia are impairing Germany's economic outlook quite significantly. Plummeting economic expectations are accompanied by expectations of soaring inflation," commented Professor Achim Wambach, President of the ZEW, regarding yesterday's economic expectations, which had fallen by 93.6 points (!) in the current March survey: more than ever before.

… and the wave of refugees from Ukraine

More and more people who are fleeing from the war in Ukraine are arriving in Germany. This is why the KfW is providing immediate assistance to cities and municipalities in creating, modernising and equipping facilities for refugees. According to a press release from 11 March, the KfW has launched the "Special Refugees Facilities Programme" for municipalities and will provide EUR 250m from its own funds for this purpose. The special programme for municipalities will run through the established IKK Investment Loans for Municipalities programme and bears a signal interest rate of -0.75%. The term of the special loan is currently limited to 12 December 2022. In principle, the maximum loan amounts to EUR 25m per municipality, which is why we believe that the framework set could be increased one way or another. With this offer, the KfW is picking up on the "Special Funding for Refugees Accommodation" from 2015, for which demand was very strong, and which promised aid of around EUR 1.5bn for municipalities. Against this backdrop, the KfW is complementing the current efforts of the German government and Laender with a specific, attractive and rapidly accessible offer to finance the short-term investment required to deal with the anticipated rising numbers of refugees. Municipal enterprises and charitable organisations are the primary focus of programmes of this kind. They can use the operating resources variant of the "IKU – Investment Loan for Municipal and Social Enterprises" programme for measures to help refugees.

Our ESG 2022 update is in the starting blocks

While still in March, we want to take up the current Zeitgeist and publish an ESG update to last year's study. In doing so, we shall of course dwell on current market developments in addition to the EU Taxonomy and the rating agencies. The European Union as an issuer often serves as an example here: to finance SURE (Support to mitigate Unemployment Risks in an Emergency), the European Commission will issue social bonds worth up to EUR 100bn in total. As a result, the Commission – in the name of the EU – has become the world's largest issuer of social bonds in a very short period. In October 2020, the European Commission started activities in the primary market, once the underlying Social Bond Framework was formally accepted, which is in turn based on the Social Bond Principles of the ICMA. The first SURE transaction totalling EUR 17bn (dual tranche) already broke records, closing with accumulated order books of EUR 233bn, which is one of the largest order volumes in the history of the global bond markets. The resulting bid-to-cover ratio of 14x also reflected immense interest on the market. The European Commission issued seven further issues of social bonds totalling EUR 89.6bn between October 2020 and May 2021. At the suggestion of the European Commission, the Governing Council approved additional financial aid of EUR 3.7bn for six Member States (Belgium, Greece, Latvia, Lithuania, Malta and Cyprus) in March 2021. Member States can continue to make applications for funding under SURE as the volume totals up to EUR 100bn (more details are provided in the "Primary market" section on the next page). From the information provided by the European Commission, we gather that of the funds disbursed to date of EUR 89.6bn, the majority is attributable to Italy (EUR 27.4bn) and Spain (EUR 21.3bn), well ahead of the other EU States.

EUROFIMA postpones its planned green bond tap

It is rare for issuers to postpone a deal after the final spread has been announced. We would therefore like to have a closer look at the planned tap of a green bond issued by EUROFIMA (ticker: EUROF): on Monday, the guidance for the planned EUR 160m (WNG) increase in the green bond EUROF 0.5% 04/23/41 appeared on market participants' screens at ms +25bp area. The spread was confirmed shortly afterwards in the form of the final terms announcement. However, the announcement on the same day that the deal was being postponed because of the volatile market environment was astonishing. Without wishing to mock, we are taking careful note of this and looking forward eagerly to the (imminent?) next attempt. The issuer's last EUR deal took place in June 2021. As a reminder, the task of the European Company for the Financing of Railroad Rolling Stock (EUROFIMA), which was created under an international treaty between 14 European countries (now 25), is to promote the development of rail transport in Europe. Having been originally limited to 50 years, an extension of its mandate until 2056 was resolved on 1 February 1984.

Primary market

The primary market in the SSA sector was largely dominated by German issuers in the last trading week. Both NRW.BANK and L-Bank saw opportunities in the market last Wednesday – i.e., a day before the regular upcoming ECB meeting: NRW.BANK (ticker: NRWBK) issued a five-year bond worth EUR 1bn (WNG) at ms -15bp (guidance: ms -15bp area). The coupon is 0.25% and the reoffer price 99.431%, meaning an issue yield of 0.365%. L-Bank (ticker: LBANK) issued a ten-year bond with a volume of EUR 1.25bn. The guidance started at ms -8bp area but was shortly afterwards revised to ms -9bp area in the course of the marketing phase. Ultimately, the order book amounted to EUR 1.7bn; there was no tightening in the final spread compared with the revised guidance. The bid-to-cover ratio consequently amounted to 1.36x. The bonds of NRW.BANK and L-Bank benefit from an explicit guarantee from their respective Bundeslaender – from the State of North Rhine-Westphalia for NRW.BANK – you probably suspected as much from the name, and from the State of Baden-Württemberg for L-Bank. An unusual issuer was also spotted this week: the African Development Bank (ticker: AFDB). The supranational development bank, which focuses on Africa, issued a EUR 1.25bn bond with a five-year maturity. With books of over EUR 2.25bn, the spread narrowed by two basis points from the initial guidance of ms -9bp area to ms -11bp. The State of Lower Saxony (ticker: NIESA) also appeared on the primary market again: a nine-year bond was offered to men (or women) at ms -12bp (guidance: ms -12bp area) yesterday (Tuesday). The volume of the bond amounts to EUR 500m (WNG); the order book amounted to EUR 675m, resulting in a bid-to-cover ratio of 1.35x. As in the previous week, we also have some information from the European Commission: the EU has sent selected banks a RfP, the reason being that new funding is required for the NGEU and SURE programme.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
NIESA	DE	14.03.	DE000A3MQY17	9.0y	0.50bn	ms -12bp	AAA / - / -	-
AFDB	SNAT	14.03.	XS2459747791	5.0y	1.25bn	ms -11bp	AAA / Aaa / AAA	-
LBANK	DE	09.03.	DE000A3MQPN4	10.0y	1.25bn	ms -9bp	- / Aaa / AA+	-
NRWBK	DE	09.03.	DE000NWB9080	5.0y	1.00bn	ms -15bp	AAA / - / AA	-

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

Covered Bonds
What does the recent ECB meeting mean for covered bonds?

Author: Dr Frederik Kunze

ECB decision of 10 March 2022 – what does it mean for covered bonds?

At its scheduled key rate meeting on 10 March 2022, the ECB's Governing Council outlined an adjusted schedule for asset purchasing after the end of the PEPP and provided further indications on the future course of its monetary policy. The ECB once again emphasised that its approach was based on the data. Overall, we see the central bank turning more hawkish (cf. NORD/LB Fixed Income Special – face-saving ECB decision: hawks have won - for now and Market overview SSA/Public Issuers). Geopolitical uncertainty has certainly continued and the rising energy prices, although not the only, remain a particular obstacle for real economic activity in the Eurozone. The upwards revision of the ECB's inflation projections, together with the slightly lowered forecast for growth prospects, are fuelling concerns about the risk of stagflation. As a matter of fact, we believe that the projections for growth in real GDP are too optimistic overall. The question as to which course the ECB will actually take in the remaining months of this year is therefore justified. In the following, we will give some thought to the implications which the ECB's course will have or may have for the covered bond market.

Influence of the Eurosystem on the covered bond market – our basic assumptions

The Eurosystem's direct influence on the covered bond market was mainly exercised via two channels in the past months and years. While extensive net investing as part of CBPP3 and increasingly the reinvestment of maturing covered bonds represented a stimulus for demand in the primary and secondary markets, funding opportunities via TLTRO tenders have been responsible for pushing back the publicly available supply because covered bond issues were often retained and deposited as collateral with the Eurosystem. Subsequently, the ASW spreads on the covered bonds eligible (and, via second round effects, also the bond issues that were not directly eligible for purchase by the Eurosystem) reflected this shortage. The extent to which the influence of the ECB's monetary policy on the covered bond market outlined will change in the wake of adjustments to the ECB's course evidently largely depends on basic assumptions. First of all, we assume that the ECB will indeed take the path described of reducing asset purchases and will reduce these further in the third quarter of 2022, before making the first change in the interest rate in the fourth quarter of the year (cf. table in the Market overview SSA/Public Issuers). As we discuss in the following, our base scenario does not assume any further new TLTRO.

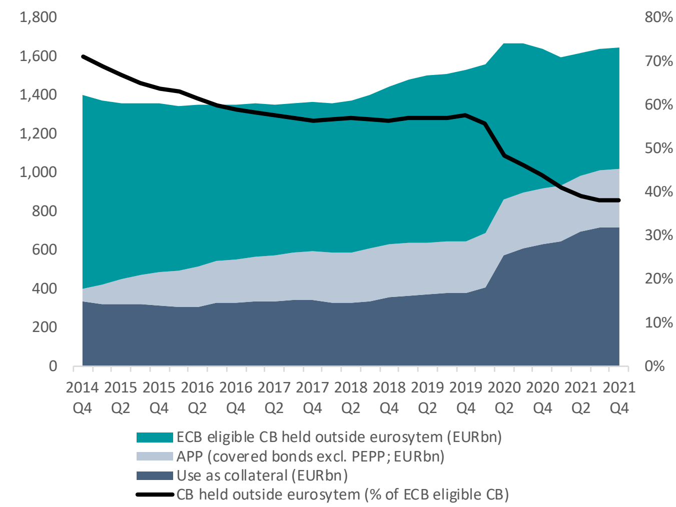
Considerations on the covered bond share of the "new" APP…

With a total volume of EUR 297bn, the CBPP3 share in the APP was 9.4% at the end of February 2022. This may lead to the conclusion that a temporary doubling of the APP would also result in higher covered bond purchases. This is not a view that we would share. After all, the share of net purchases by CBPP3 in the APP has been significantly below the long-term average of 9.4% in recent years (2021: 5.1%, 2020: 7.2%, 2019: 8.6%, 2018: 7.5%).

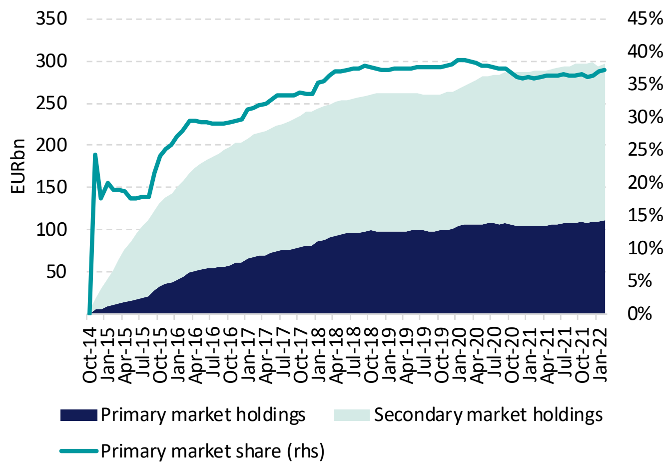
… and the "new" share of the ECB's order in primary market deals
The small share of CBPP3 in 2020 and 2021, in particular, must also be seen as a consequence of diminishing supply. The assumed order quota of the ECB in the covered bond primary market remained unchanged at a level of 40%, with actual allocation to the Eurosystem considerably lower. This share is also of importance to the covered bond segment, since the ECB order as an assumed certain share perceptibly minimises the execution risk of new issues for EMU deals. Accordingly, from the perspective of issuers and investors, a particular focus is on this rate, which is not publicly communicated. The share of covered bonds in the current CBPP3 portfolio that were purchased in the primary market amounts to 37.3% (EUR 111bn) and an increase in absolute terms of an impressive EUR 1.97bn was recorded in the reporting month of February 2022. In relation to monetary policy considerations regarding the transmission mechanism and the risk of a potential fragmentation of the common currency area, the covered bond market is not the focus for the ECB's decision-makers, in our opinion. To this extent, we do not therefore expect that greater attention will be paid to this sub-segment in relation to the APP. Following this train of thought, we do not anticipate notable shifts towards covered bonds in terms of net purchases under the APP. Consequently, the share of the ECB's primary market order is likely to remain constant initially, before being reduced significantly no later than in the course of the third quarter of 2022. We expect two to three steps ranging from 10 to 15 percentage points. As a stronger focus on the PSPP and CSPP cannot be ruled out, in our view, we would not entirely exclude the possibility of the Eurosystem already slightly reducing its own share in the primary market order during the second quarter of this year. The ECB will also continue to be a buyer in the primary market after the end of net purchases, for the purpose of reinvesting. A share of 10% seems realistic. The (expected) volume of bonds maturing under the CBPP3 in the period from January to December 2022 totals EUR 41.1bn, of which EUR 12.3bn has already occurred. For the period from April to June 2022, the expected volume of bonds maturing amounts to EUR 5.1bn, with a further EUR 15.9bn maturing in the second half of 2022. In our view, it should also be taken into account with regard to purchasing behaviour that reinvestment does not necessarily have to occur directly and not necessarily in CBPP3, although the Eurosystem, in principle, aims to reinvest in the relevant programmes according to its own statement on the technical parameters.

On the way to an adequate market mechanism?
The reduction of the share of the primary market order will happen unannounced, as has also been the case in the past. We assume that the ECB will proceed with caution. In the wake of the war in Ukraine and the associated phase of extremely increased uncertainty, the covered bond market, in particular, may contribute to something of a return to market activity. At this point, we would not want to underestimate knock-on effects for other subsegments that emanate from the covered bond segment (as well as the market for public issues). Nevertheless, a reduction of the ECB's share is inevitable, in view of the path of monetary tightening communicated by the ECB. In principle, we see this development as a necessary condition for an adequate market mechanism. The share of the covered bond market not held on the part of the Eurosystem (via CBPP3 or as collateral) decreased significantly again in 2020 and 2021. The ECB's withdrawal from the primary market may herald a welcome – if not quiet – trend reversal.

ECB shares in the covered bond market



ECB – CBPP3 volume



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

What about the TLTRO?

At the ECB's latest meeting, the topic of targeted longer-term refinancing operations (TLTRO) remained in the statement as a "transit item", but was not discussed further. The expiry of attractive terms in mid-year 2022 therefore remains a requirement. Furthermore, our base scenario includes the estimate that there will be no new TLTRO setup. Although we do not wish to trivialise current developments, the decisions on TLTRO III and the adjustment of terms were taken in a different kind of market environment. In addition, the picture in terms of inflation is completely different now. With this assessment regarding "TLTRO IV", the risk of a renewed distorting effect on the primary market will virtually be erased in future. Nonetheless, the influence of unconventional funding instruments remains in place to the extent that assumptions now have to be made about when, whether and how the (early) repayments of volumes raised will be refinanced. For example, we expect an upwards trend in the funding requirement, including via the covered bond market and especially around mid-year 2023. We see the volume of bonds maturing of EUR 1,126bn as a significant exaggeration of the actual funding requirement of commercial banks. Nevertheless, a substantial share of this volume should result in increased primary market activities around the middle of 2023.

Spread trend in 2022 and beyond…

With regard to the spread trend in the EUR benchmark segment, widening can be expected to be almost certain as a result of the ECB's announced monetary policy. Increasing supply in the long term (this already forms part of our supply forecast for 2022) will be met with demand in the primary and secondary market that, over time, will be less and less dominated by the Eurosystem. Although the new issue premiums paid in the primary market in the recent past initially exaggerated the extent of widening, in our opinion, the fundamental direction is right and the secondary market should follow suit.

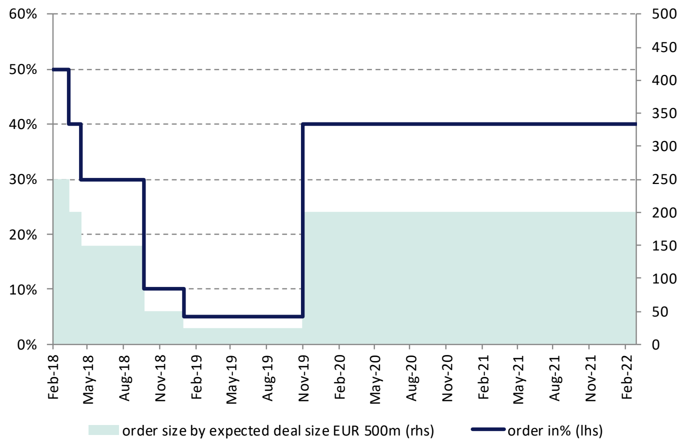
… determined by sentiment as well as technical market analysis

We see general sentiment to be an important unknown variable in the equation. Geopolitical upheaval and its possible knock-on effects are likely to have an impact. The further course of inflation also remains difficult to forecast. In this respect, the uncertainty regarding a stagflation scenario described above kicks in. Ultimately, this also makes it difficult to predict the further monetary policy. In our view, sentiment-driven widening would be a possible consequence. While this is more likely to be a one-off episode for now, the general technical market analysis suggests a sustained movement towards a new spread level, in our assessment.

Overview of TLTRO III tenders

Tender	Maturity	Allotted (EURbn)	Outstanding (EURbn)
TLTRO III.10	18.12.24	51.97	51.98
TLTRO III.9	25.09.24	97.57	97.49
TLTRO III.8	26.06.24	109.83	109.57
TLTRO III.7	27.03.24	330.50	330.08
TLTRO III.6	20.12.23	50.41	49.26
TLTRO III.5	27.09.23	174.46	161.73
TLTRO III.4	28.06.23	1308.43	1216.48
TLTRO III.3	29.03.23	114.98	95.19
TLTRO III.2	21.12.22	97.72	83.90
TLTRO III.1	28.09.22	3.40	1.96

Order behaviour of the Eurosystem



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

Conclusion

The ECB's new schedule should, if it is adhered to, bring about a change in supply and demand in the covered bond market. In our base scenario, we expect a gradual reduction of the share of the ECB's primary market order to a level that seems appropriate in respect of upcoming maturities. Conversely, the temporary increase of the APP to EUR 40bn in April this year should not prompt an increased order share. We expressly welcome the ECB's gradual withdrawal from the covered bond market and an increasing share in publicly available bond issues. A newly calibrated spread structure also should not be interpreted as an unwelcome development per se. After all, such a development may also make the EUR benchmark segment seem more attractive again to a growing number of real money investors.

SSA/Public Issuers
Credit authorisations of the German Laender for 2022

Author: Dr Norman Rudschuck, CIIA

Credit authorisations (gross) remain high at more than EUR 91bn

Most of the German subs-sovereigns concluded their credit planning for the current year “late” in 2022, as expected. Figures for the credit authorisations of all the Laender are therefore now available for 2022. The figures, the gross numbers for which can be viewed in the broadest sense as funding targets, provide a comparatively good indicator of how active these Bundeslaender are likely to be in the capital markets this year. The planning also includes SSD and private placements. The gross figure aggregated across all Laender for 2022 currently stands at EUR 91.2bn, which represents a decline versus the previous year’s figure, which was distorted by COVID-19 (2021: EUR 119.4bn). The 2022 budget for Hesse was only approved a short while ago. Furthermore, the Budget Act first needed to come into force. This certainly made another significant contribution towards lifting the total amount for all 16 sub-sovereigns above the EUR 90bn mark. In the years before the pandemic, credit authorisations were even lower at EUR 70.3bn (2020; pre-coronavirus and as a result of the debt brake) and EUR 66.8bn (2019). Until March 2020, the movement in these figures clearly reflected the growing focus on budget consolidation at Laender level. Now, none of the finance ministries are forecasting a balanced, let alone positive, Laender budget until 2023 at the earliest, as this is when the debt brake comes into force again. The year 2020 was dominated by several supplementary budgets, in some cases two per sub-sovereign. In 2021, it was somewhat quieter on this front. The planning basis is even more stable in 2022.

German Laender credit authorisations 2022 (EUR bn)*

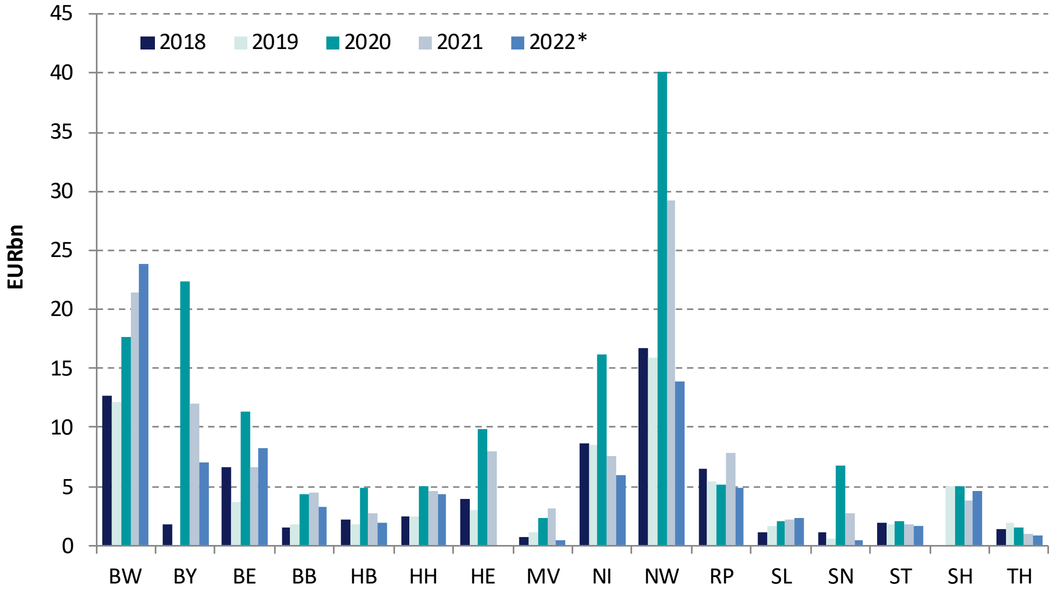
	Net	Gross
Baden-Wuerttemberg	-0.96	23.78
Bavaria	5.83	7.07
Berlin	0.75	8.20
Brandenburg	0.16	3.25
Bremen	0.62	1.98
Hamburg	1.60	4.39
Hesse	-	7.73
Mecklenburg-Western Pomerania	-	0.42
Lower Saxony	-0.69	5.91
North Rhine-Westphalia	0.09	13.85
Rhineland-Palatinate	0.89	4.89
Saarland	0.40	2.30
Saxony	0.00	0.41
Saxony-Anhalt	-	1.65
Schleswig-Holstein	-0.03	4.57
Thuringia	-0.17	0.81
Total	**8.49**	**91.21**

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research
*Some figures may be rounded or preliminary figures

Adherence to debt brake not back in focus until 2023

Developments up to and since 2020 are diametrically opposed. On the one hand, it has taken huge efforts on the part of the Laender to maintain economic conditions as much as possible in the face of the pandemic. On the other, the debt brake also in force at Laender level (really) since 2020 calls for (even) greater budgetary discipline. Some sub-sovereigns had been managing without any new borrowing on a sustained basis before the debt brake officially started, and their development has now been set back. This has led to downgrades for Baden-Wuerttemberg and Saxony-Anhalt, among others, as well as to changes in the rating outlook to "negative" for other Laender. At present, net borrowing is in negative territory for a considerable number, which has positive implications, namely a reduction in debt, for Baden-Wuerttemberg, Lower Saxony, Schleswig-Holstein and Thuringia. According to the table above, only Saxony is forecasting a balanced Laender budget, and therefore a net borrowing authorisation of exactly zero, for the current year.

Credit authorisations for the German Laender over time



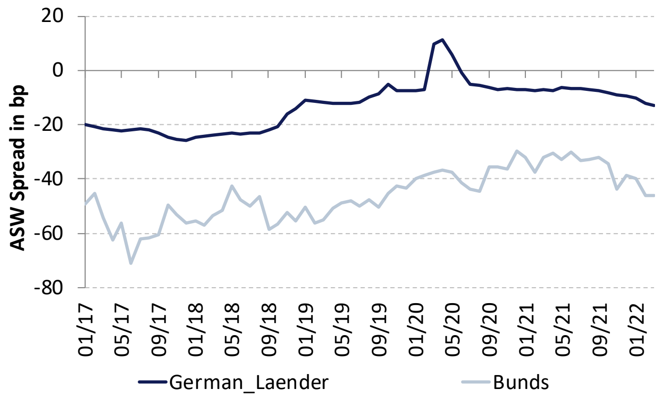
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research; *Some figures may be rounded or preliminary figures
BW = BADWUR, BY = BAYERN, BE = BERGER, BB = BRABUR, HB = BREMEN, HH = HAMBRG, HE = HESSEN, MV = MECVOR, NI = NIESA, NW = NRW, RP = RHIPAL, SL = SAARLD, SN = SAXONY, ST = SACHAN, SH = SCHHOL, TH = THRGN.

Shift(s) in supply

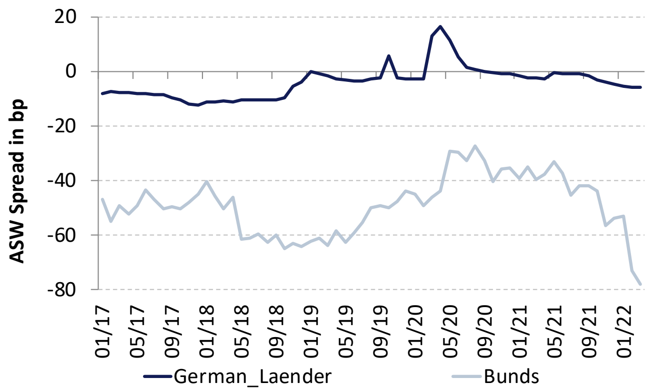
The highest gross figure by far had previously always been reported by NRW. Accordingly, this most densely populated sub-sovereign usually made frequent appearances in the primary market. In 2022, its requirement of EUR 13.9bn put NRW in second place, and has already resulted in various transactions since the start of the year. The volume of bonds maturing here is quite a bit lower than in previous years, which means that a net amount of EUR +0.1bn is expected. Only BADWUR has a higher funding requirement in 2022. The sub-sovereign has published a gross borrowing authorisation of EUR 23.8bn, which is partly due to very high maturities, with even a decrease of EUR 1.0bn anticipated in net terms. Third place in this category previously almost always went to Lower Saxony, but in 2022, bronze is set to go to BERGER (EUR 8.2bn). According to the table, with a volume of EUR 5.9bn, NIESA comes just after HESSEN (EUR 7.7bn) and BAYERN (EUR 7.1bn). With regard to net credit authorisations, the ranking is different: BAYERN will 2022 be undisputed in first place with EUR +5.8bn, ahead of HAMBRG (EUR +1.6bn).

Substantial new supply volume meets slowly petering out demand from the Eurosystem
The new supply volume is no longer as substantial as it was in 2020 and 2021. However, in 2022, it remains higher than before the pandemic. In particular, we do not assume that there will be a notable shift in the funding instruments used (away from cash facilities, SSD or private placements in favour of regional bonds). At the moment, this increased supply is about to meet diminishing demand, due primarily to the monthly securities purchasing carried out by the Eurosystem (the PEPP will finish at the end of March; however, there will be a doubling of the previous monthly EUR 20bn under the APP to EUR 40bn in April, and then EUR 30bn in May, followed by a return to EUR 20bn from June onwards, with the end of purchasing expected in Q3). The Eurosystem will therefore have considerable demand for regional bonds, in net terms, until shortly before a rise in the interest rate at the end of 2022. The existing but soon to be reduced central bank demand – reinvestments are planned until the end of 2024 and have also been flowing into regional paper for a long time already – coupled with the above supply, should mean that notable spread widening will not be an issue. Spread tightening will not really be on the radar either and we are therefore forecasting a sideways movement for 2022.

Spread trend for selected Laender bonds (ASW) – 5Y



Spread trend for selected Laender bonds (ASW) – 10Y



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

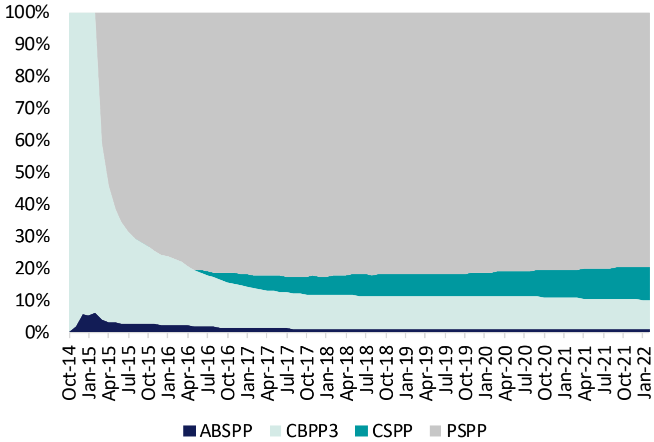
Commentary and conclusion
In the pre-pandemic years, a distinct downwards trend in net and gross credit authorisations was evident, which stabilised, or would have stabilised, at around EUR 70bn in 2020 before the coronavirus crisis. According to initial estimates and aggregated across all Laender, net credit authorisations would have been negative for the third time in succession, which would have equated to a reduction in total debt. As we all know, this was not to be. The data for the current year has now also been published: EUR 91.2bn in gross credit authorisations for the 16 German Laender in 2022, compared with EUR 119.4bn last year, a figure that was revised several times. From a capital market perspective, this means that a high level of supply is still met with a high, albeit declining, level of demand. First and foremost here is the Eurosystem, which may only operate in the secondary market. However, the ECB will discontinue the PEPP at the end of March and will also close the APP by the end of 2022. Many deals in the primary market are significantly oversubscribed – without the involvement of the Eurosystem. Overall, the impact on spreads in this segment should be modest for the time being. By this, we are not referring to the current yo-yoing of yields but rather the ASW spread.

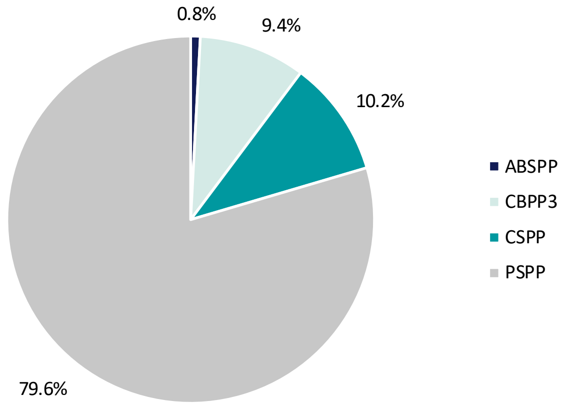
ECB tracker

Asset Purchase Programme (APP)

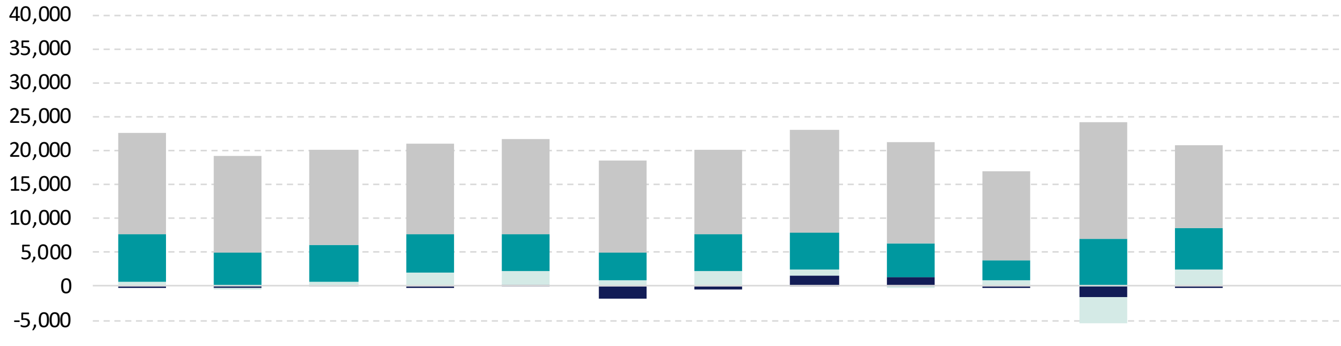
	ABSPP	CBPP3	CSPP	PSPP	APP
Jan-22	26,740	294,407	316,646	2,504,428	3,142,221
Feb-22	26,696	296,783	322,918	2,516,523	3,162,920
Δ	-45	+2,376	+6,272	+12,095	+20,698

Portfolio structure





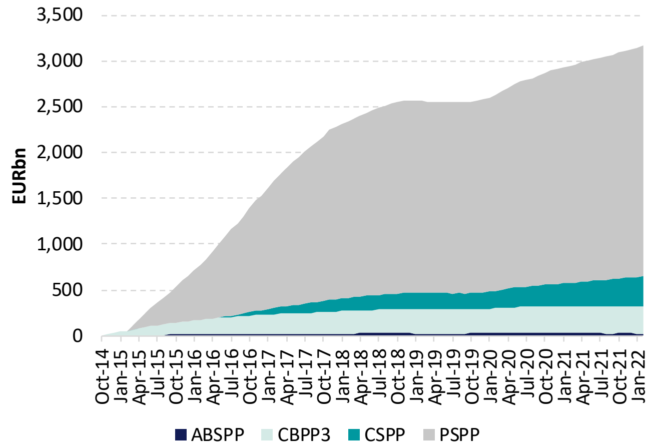
Monthly net purchases (in EURm)



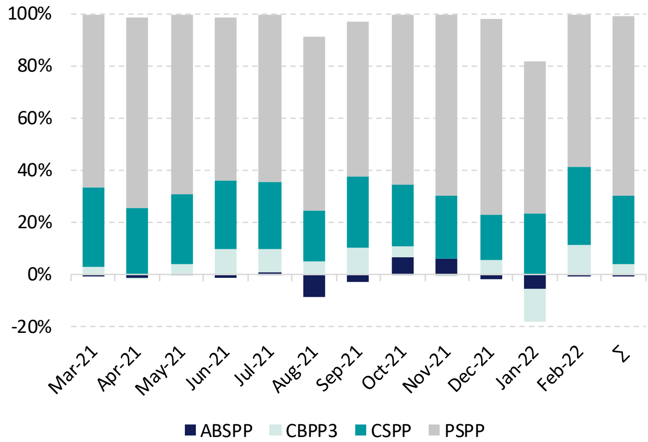
	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
APP	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	240,614
PSPP	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	12,095	168,592
CSPP	6,929	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	6,970	6,272	64,840
CBPP3	684	-5	686	2,037	2,011	999	2,184	1,008	-12	942	-3,761	2,376	9,149
ABSPP	-7	-278	88	-319	141	-1,749	-538	1,490	1,255	-342	-1,663	-45	-1,967

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

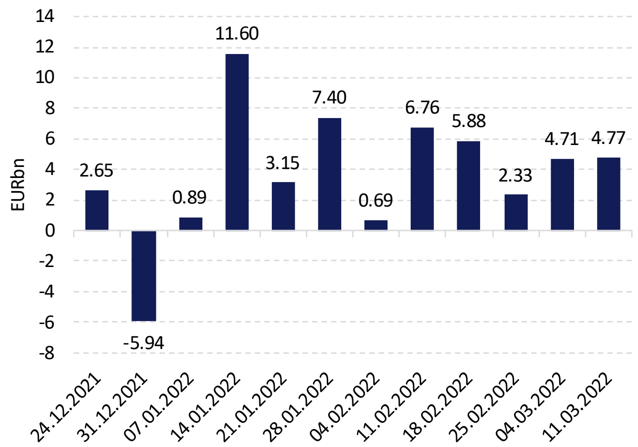
Portfolio development



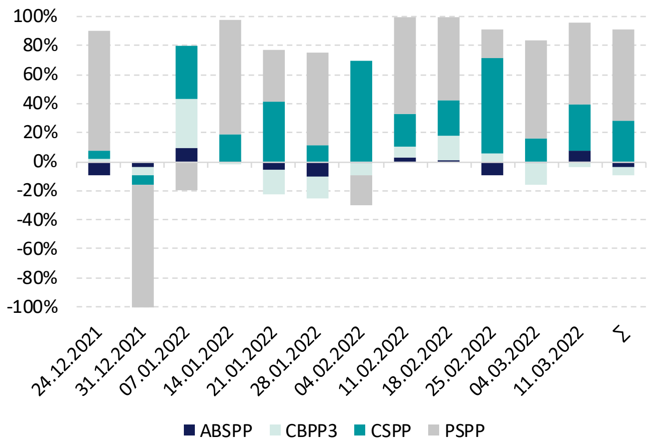
Distribution of monthly purchases



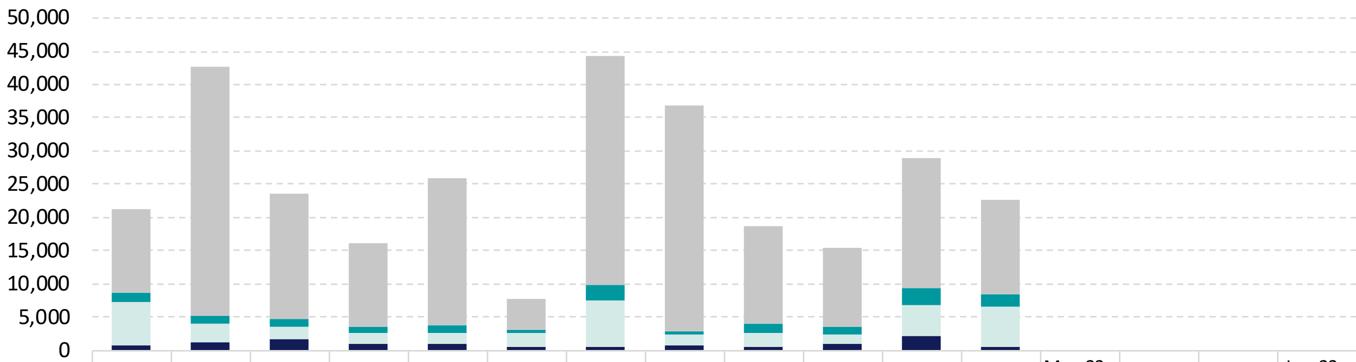
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

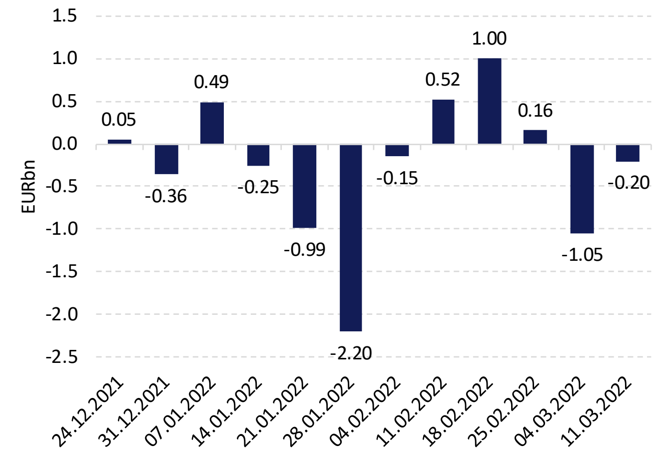


	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-22 - Feb-23	2021	2022	Jan-23 - Feb-23
APP	21,175	42,745	23,603	16,211	26,009	7,834	44,257	36,867	18,607	15,465	28,836	22,762	304,371	247,069	296,334	51,598
PSPP	12,603	37,532	18,999	12,638	22,238	4,841	34,354	34,003	14,669	12,016	19,469	14,255	237,617	188,494	228,424	33,724
CSPP	1,337	1,093	996	1,017	1,198	280	2,431	549	1,332	1,166	2,482	1,970	15,851	17,134	15,498	4,452
CBPP3	6,419	3,019	1,866	1,582	1,629	2,227	6,866	1,647	2,165	1,408	4,783	5,922	39,533	30,143	41,152	10,705
ABSPP	816	1,101	1,742	974	944	486	606	668	441	875	2,102	615	11,370	11,298	11,260	2,717

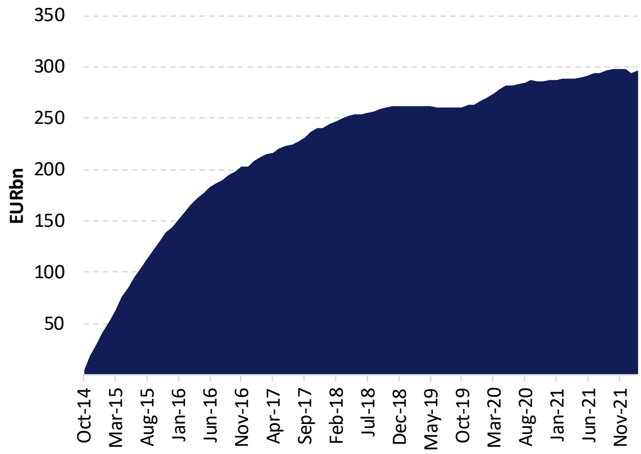
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

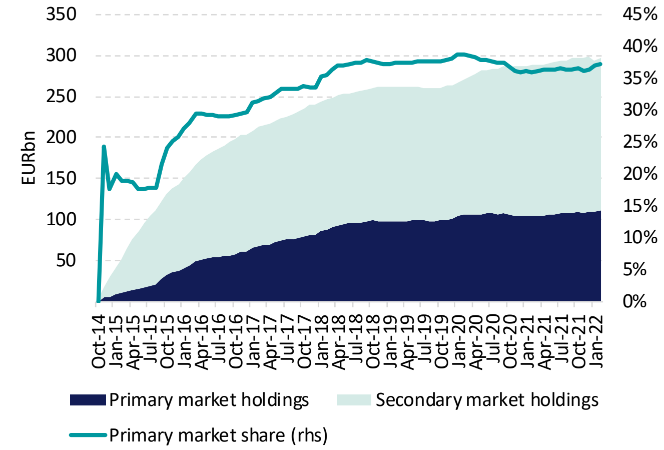
Weekly purchases



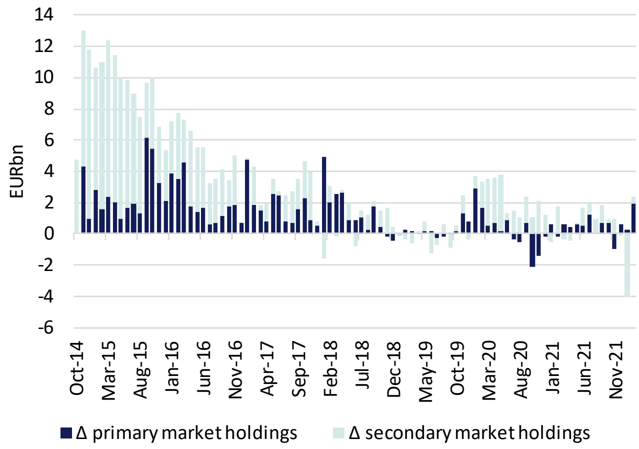
Development of CBPP3 volume



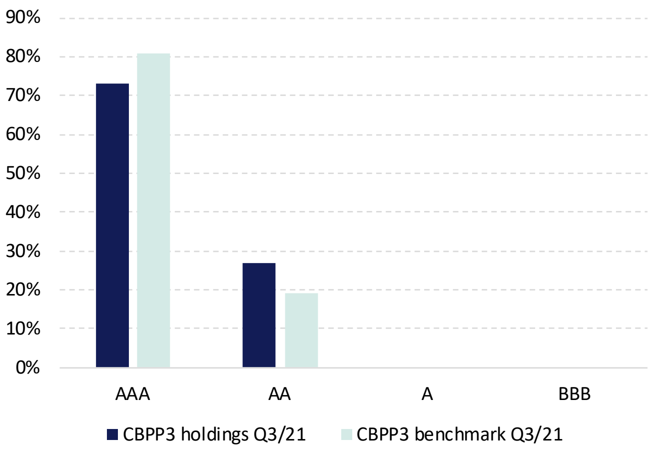
Primary and secondary market holdings



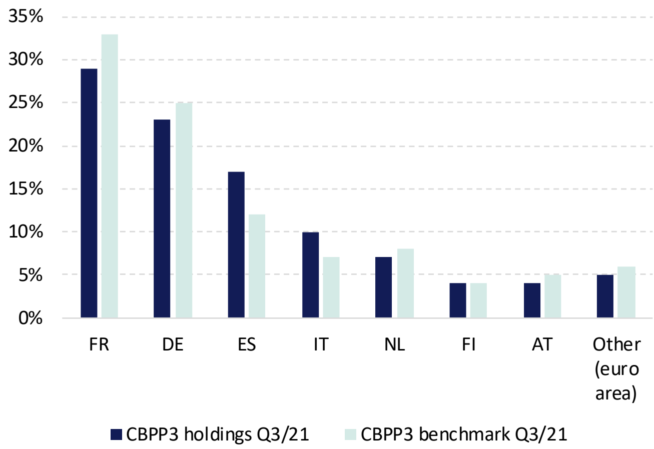
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



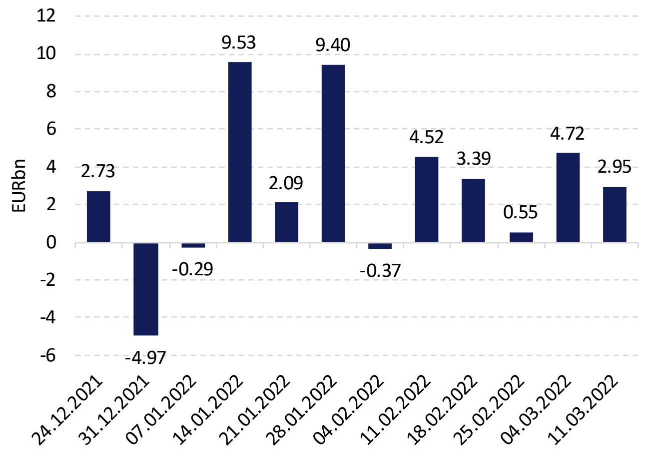
Distribution of CBPP3 by country of risk



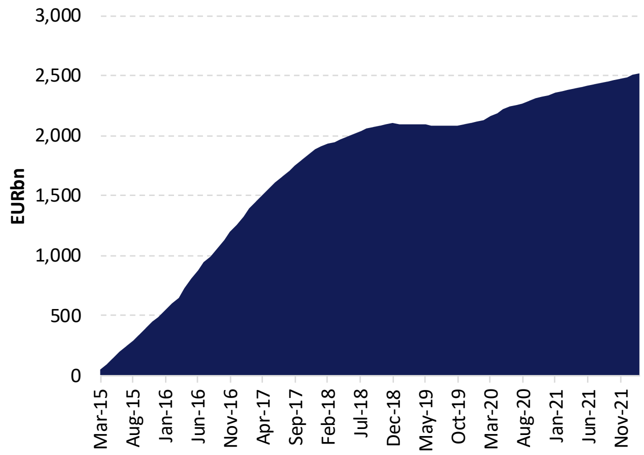
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



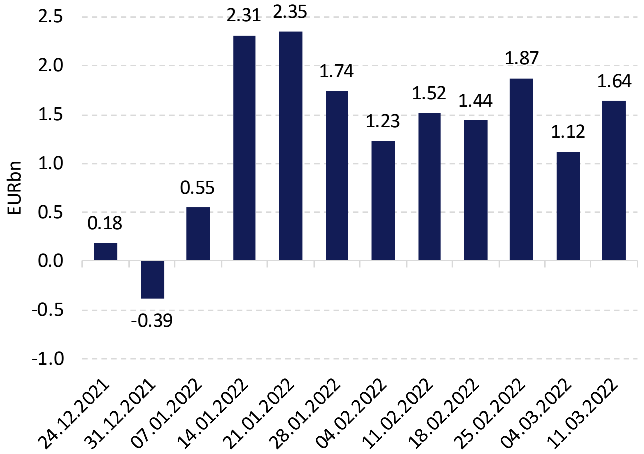
Overall distribution of PSPP buying at month-end

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%	73,940	71,860	2,080	7.5	7.6	-0.1
BE	3.4%	92,603	89,448	3,155	8.0	10.2	-2.2
CY	0.2%	4,275	5,283	-1,008	9.9	8.8	1.1
DE	24.3%	640,615	647,220	-6,605	6.6	7.6	-1.0
EE	0.3%	414	6,916	-6,502	9.2	7.5	1.7
ES	11.0%	305,586	292,769	12,817	8.0	8.4	-0.4
FI	1.7%	42,422	45,098	-2,676	6.9	7.7	-0.8
FR	18.8%	522,937	501,452	21,485	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,963	41,575	388	8.5	10.1	-1.6
IT	15.7%	437,653	417,097	20,556	7.1	7.9	-0.8
LT	0.5%	5,649	14,210	-8,561	10.2	10.6	-0.4
LU	0.3%	3,944	8,087	-4,143	5.6	7.2	-1.7
LV	0.4%	3,440	9,567	-6,127	11.3	10.4	0.9
MT	0.1%	1,375	2,575	-1,200	9.5	9.2	0.3
NL	5.4%	124,353	143,884	-19,531	7.7	9.0	-1.4
PT	2.2%	52,086	57,463	-5,377	7.0	7.2	-0.2
SI	0.4%	10,544	11,822	-1,278	9.9	10.2	-0.3
SK	1.1%	17,322	28,117	-10,795	8.2	8.3	-0.1
SNAT	10.0%	279,373	266,049	13,324	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,660,494**	**2,660,494**	**0**	**7.3**	**8.2**	**-0.9**

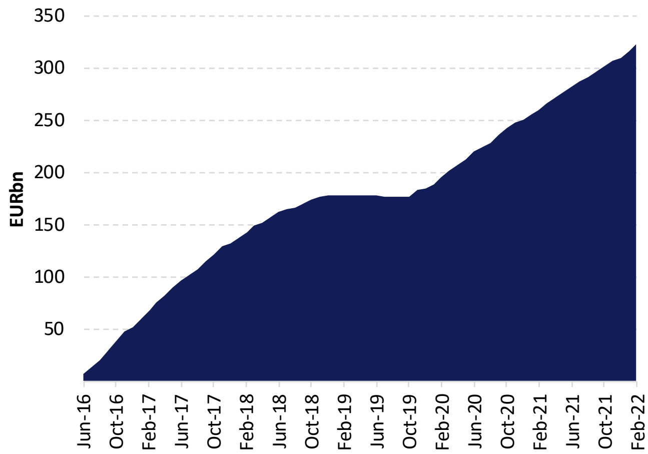
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

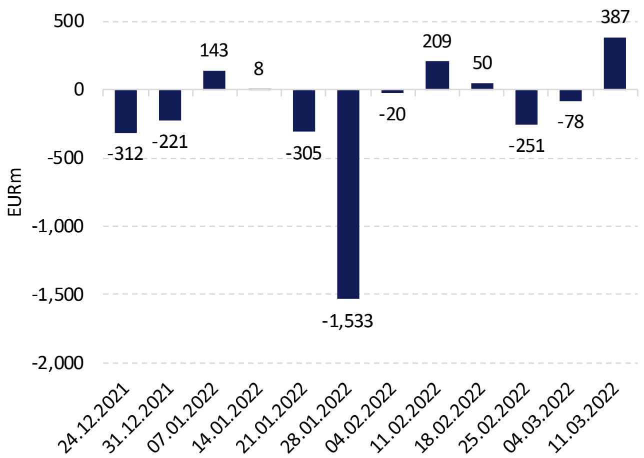


Development of CSPP volume

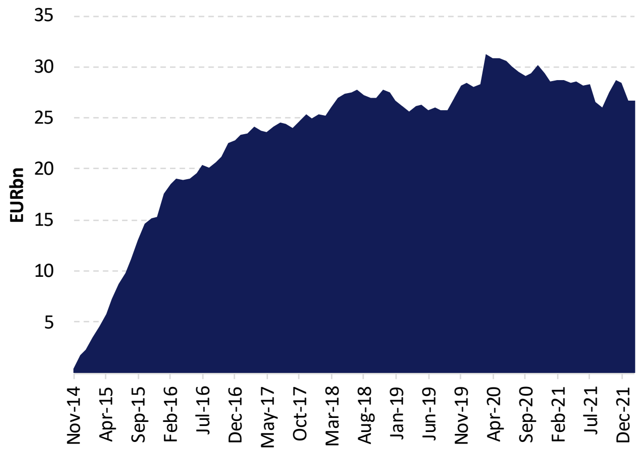


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



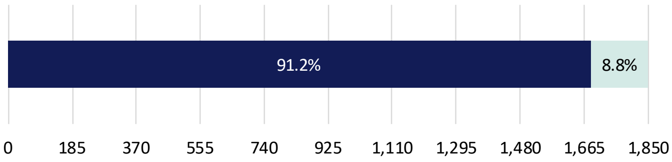
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Jan-22	1,647,678
Feb-22	1,687,862
Δ	+40,184

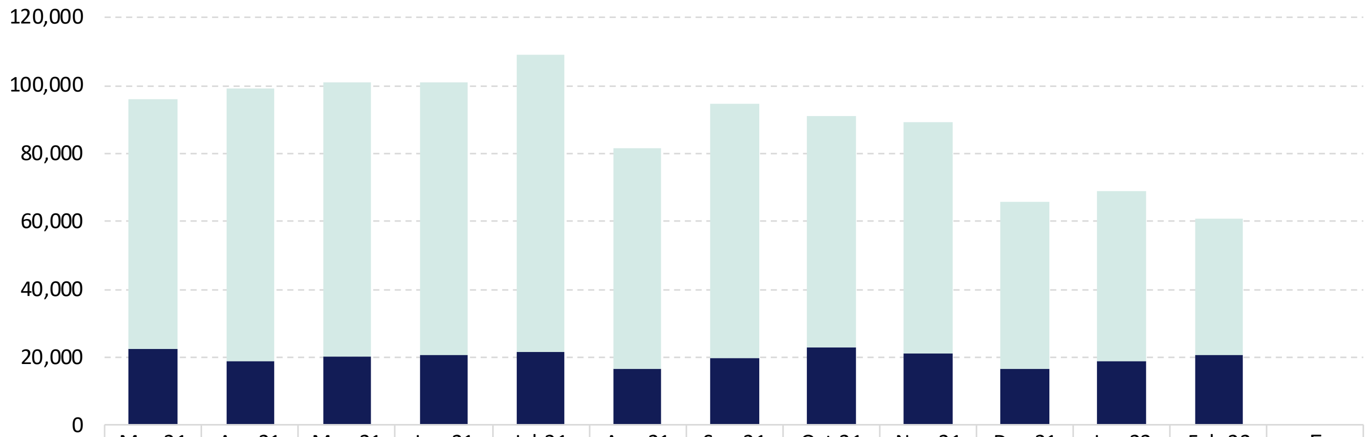
Volume already invested (in EURbn)



Estimated portfolio development

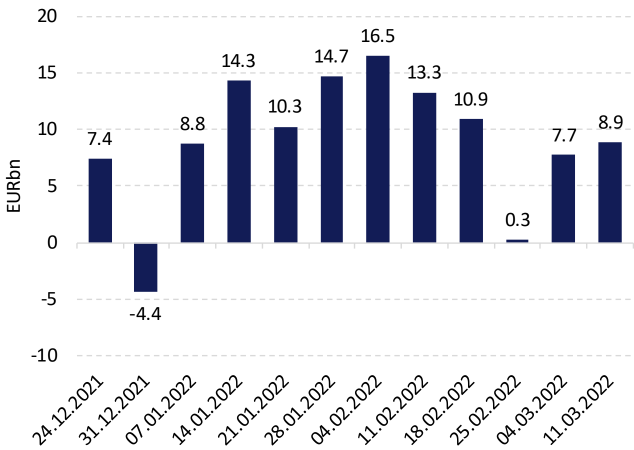
Assumed pace of purchases	Weekly net purchase volume	PEPP (theoretically) limit hit in ...
Average weekly net purchase volume so far	EUR 16.5bn	10 weeks (20.05.2022)

Monthly net purchases (in EURm)

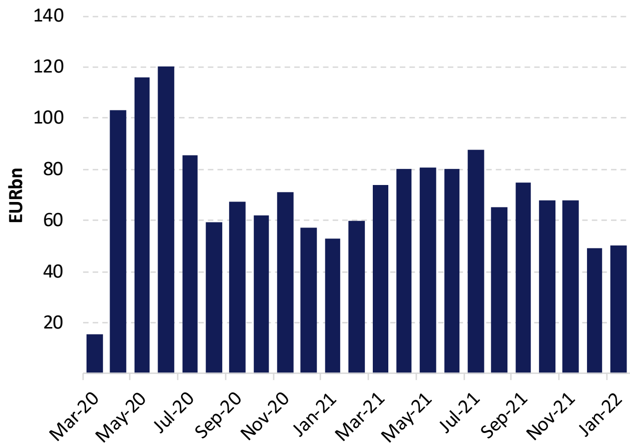


	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
∑	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	1,058,35
PEPP	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	817,737
APP	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	240,614

Weekly purchases



Development of PEPP volume

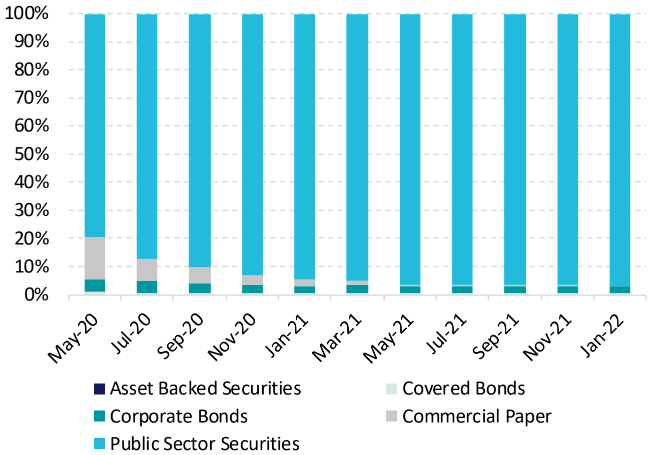


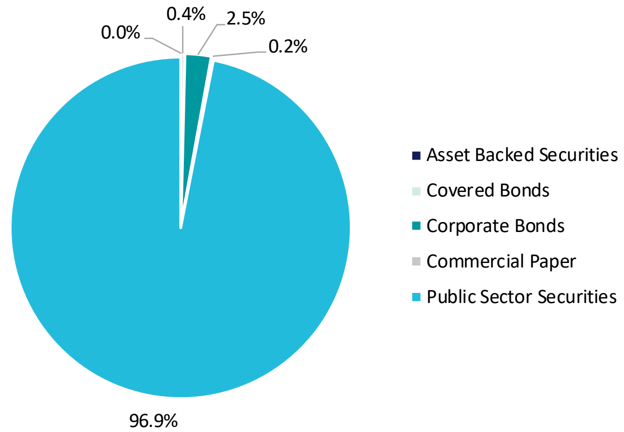
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

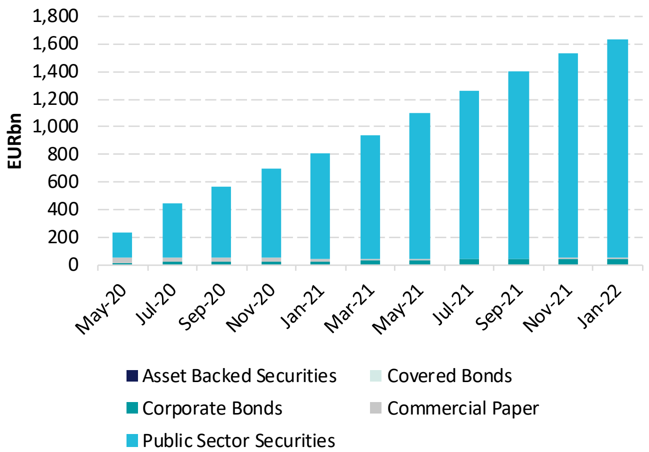
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Nov-21	0	6,079	39,871	4,032	1,485,526	1,535,508
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Δ	0	0	+467	-172	+99,193	+99,488

Portfolio structure

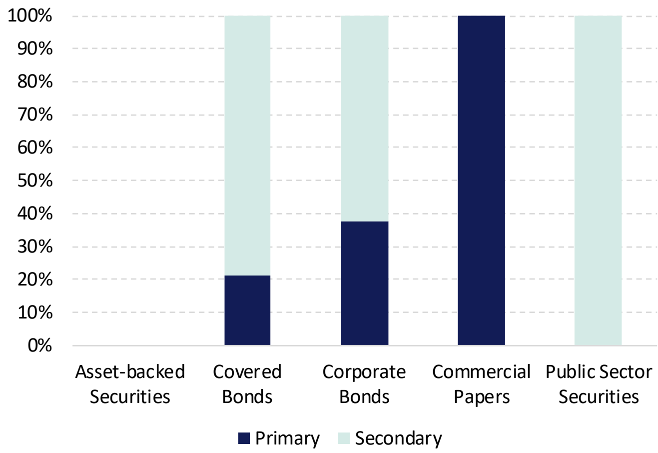




Portfolio development



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%

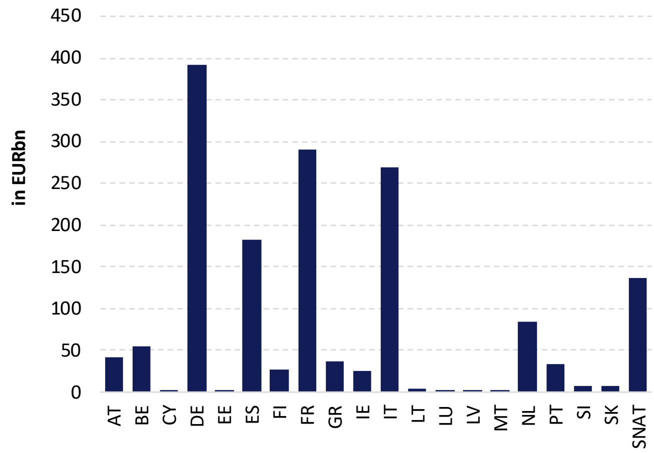
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

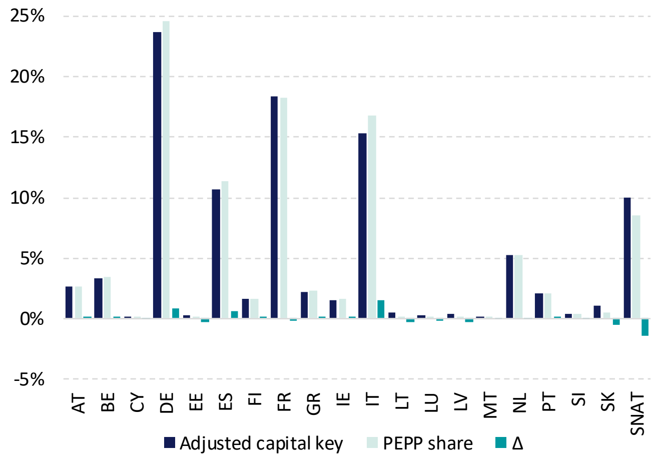
Breakdown of public sector securities under the PEPP

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



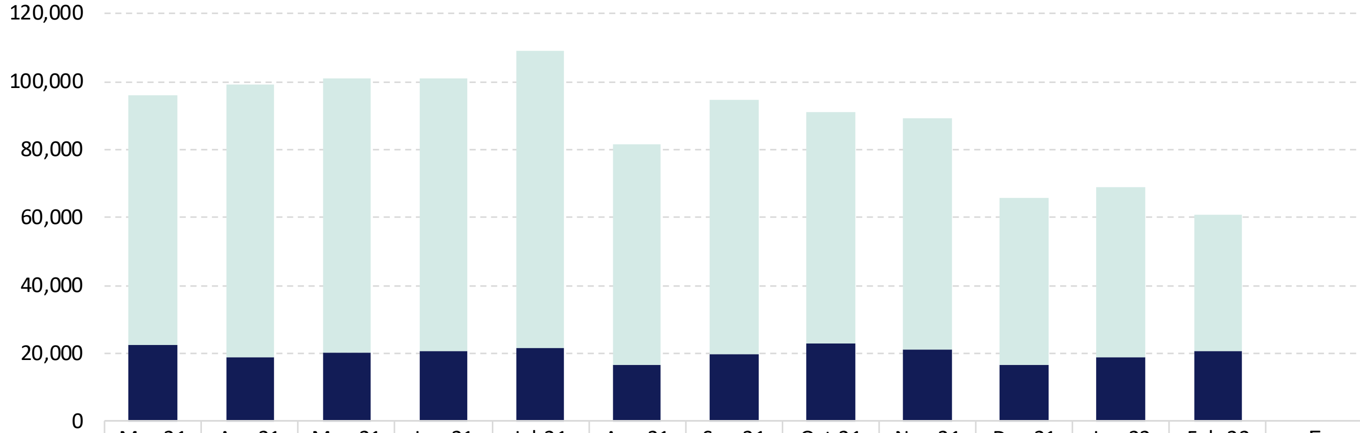
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

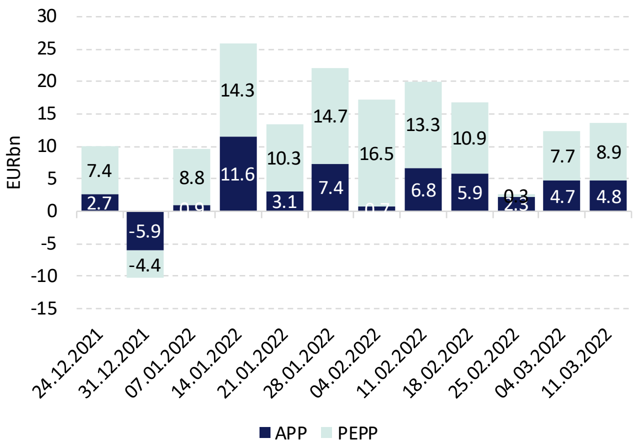
	APP	PEPP	APP & PEPP
Jan-22	3,142,221	1,647,678	4,789,899
Feb-22	3,162,920	1,687,862	4,850,782
Δ	+20,698	+40,184	+60,882

Monthly net purchases (in EURm)

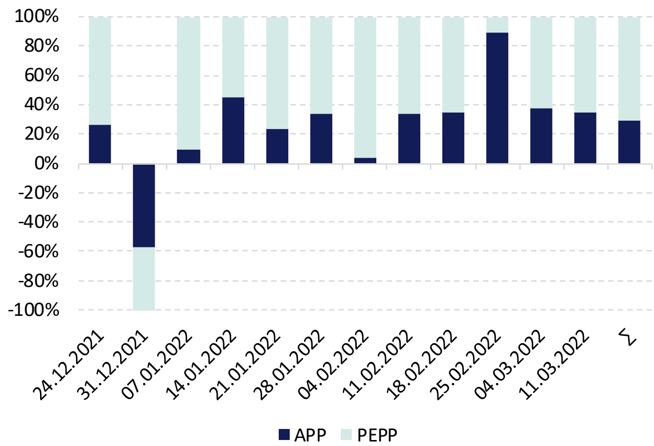


	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
∑	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	1,058,35
PEPP	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	817,737
APP	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	240,614

Weekly purchases



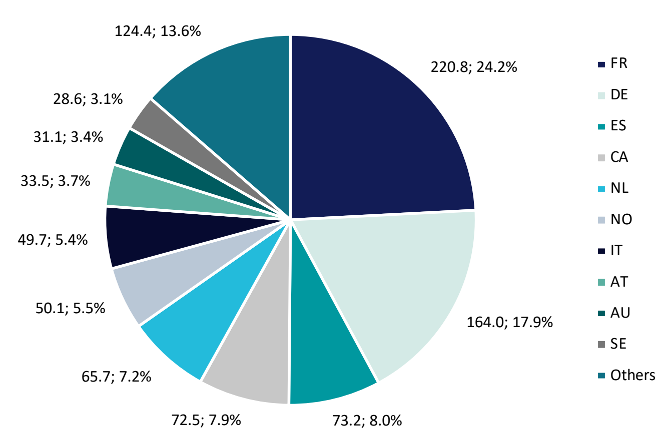
Distribution of weekly purchases



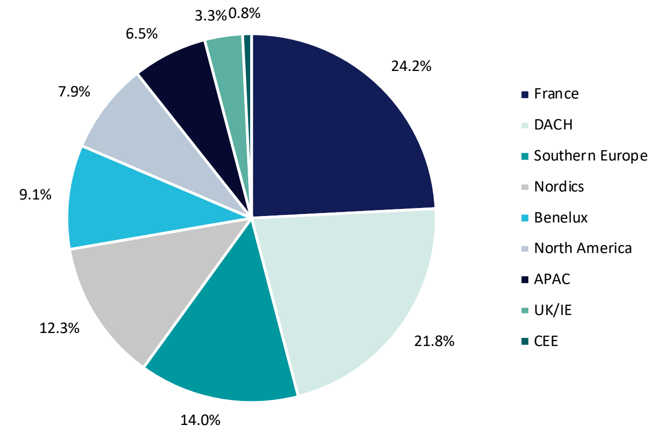
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



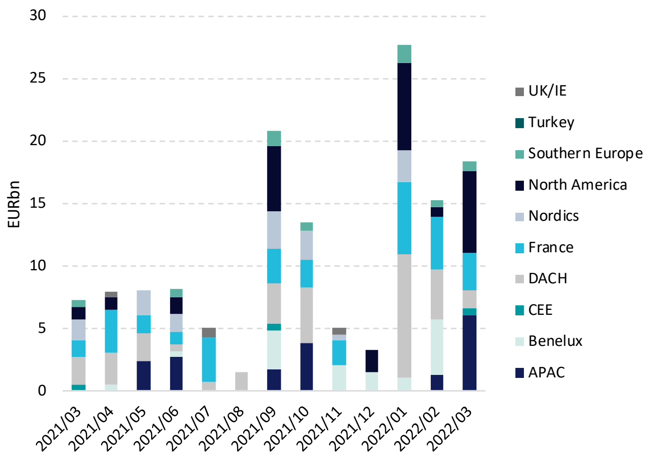
EUR benchmark volume by region (in EURbn)



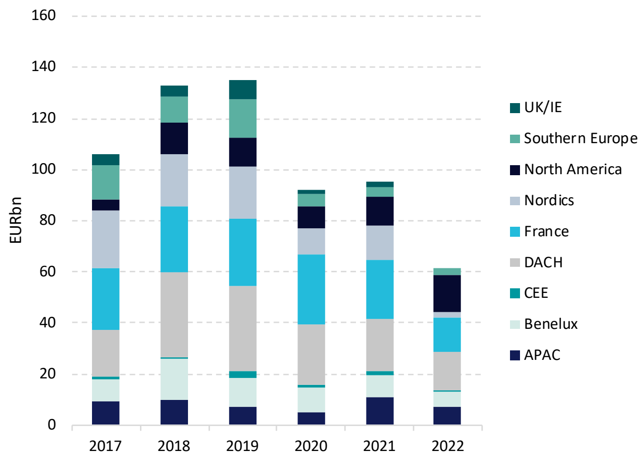
Top-10 jurisdictions

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	220.8	212	11	0.94	10.1	5.6	0.82
2	DE	164.0	238	17	0.63	8.4	4.6	0.41
3	ES	73.2	59	5	1.13	11.8	3.9	1.78
4	CA	72.5	58	0	1.21	5.9	3.3	0.22
5	NL	65.7	67	0	0.93	11.6	7.7	0.71
6	NO	50.1	58	9	0.86	7.4	3.9	0.38
7	IT	49.7	59	2	0.81	9.2	4.4	1.24
8	AT	33.5	62	2	0.54	9.9	6.3	0.53
9	AU	31.1	31	0	1.00	8.4	3.9	0.89
10	SE	28.6	35	0	0.81	7.6	3.4	0.41

EUR benchmark issue volume by month

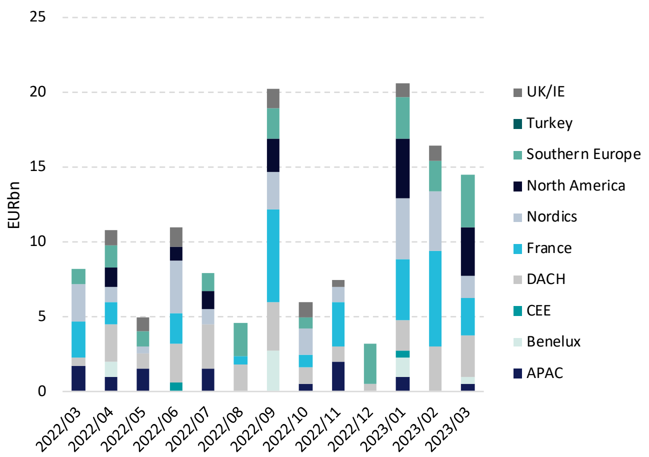


EUR benchmark issue volume by year

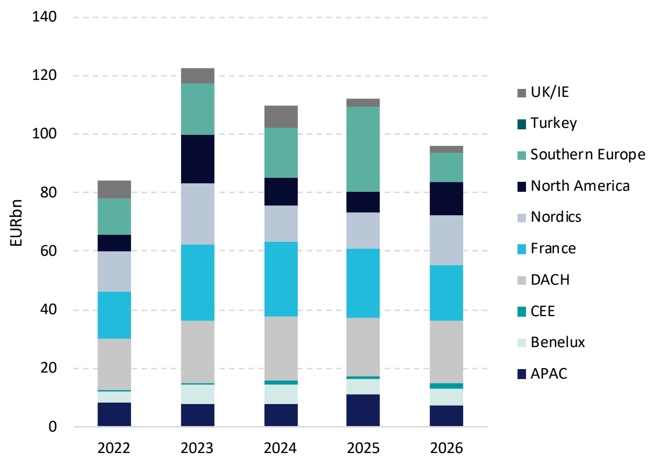


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

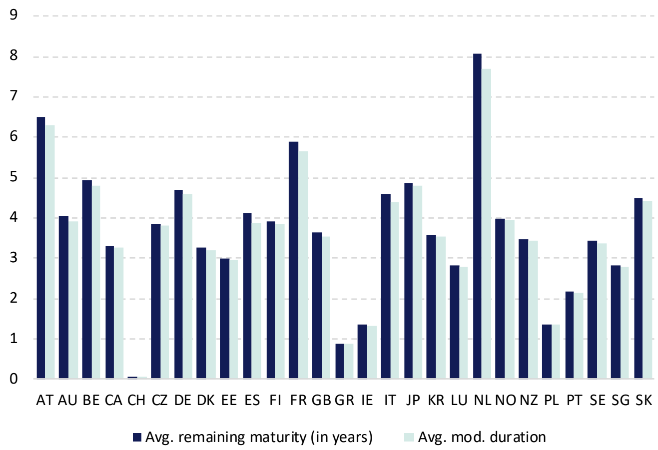
EUR benchmark maturities by month



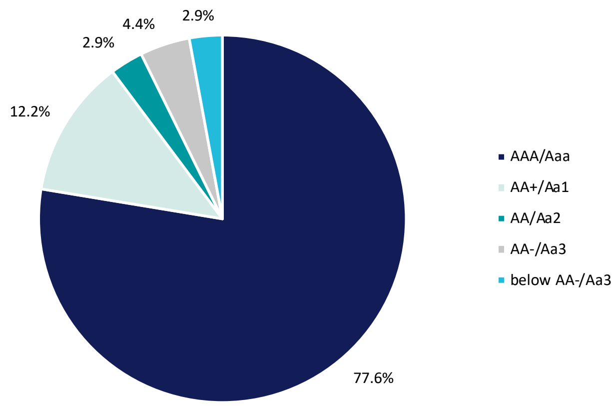
EUR benchmark maturities by year



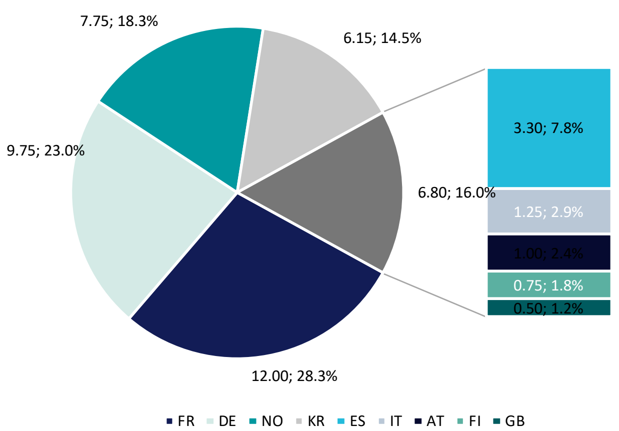
Modified duration and time to maturity by country



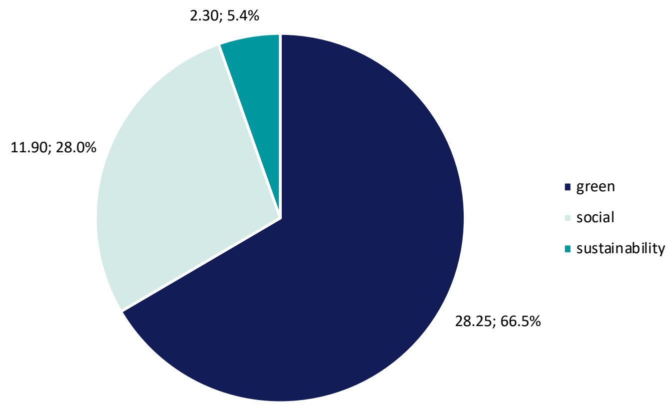
Rating distribution (volume weighted)



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



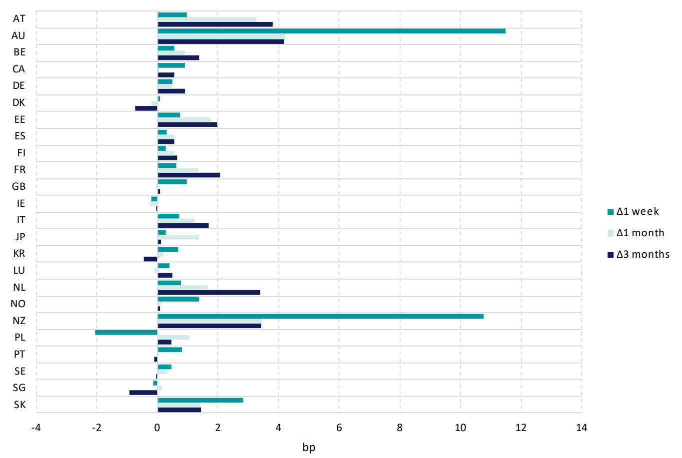
EUR benchmark volume (ESG) by type (in EURbn)



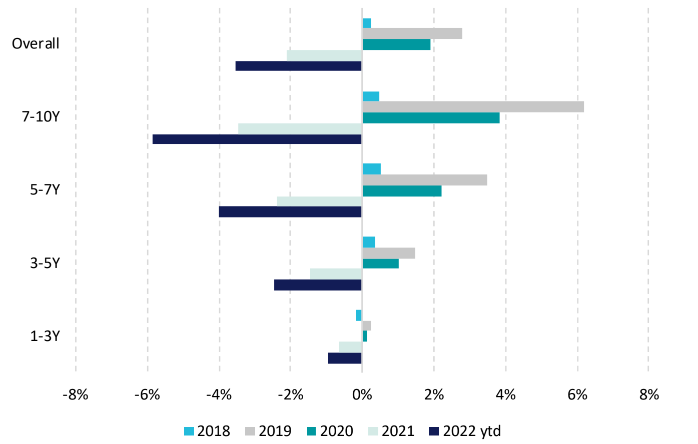
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

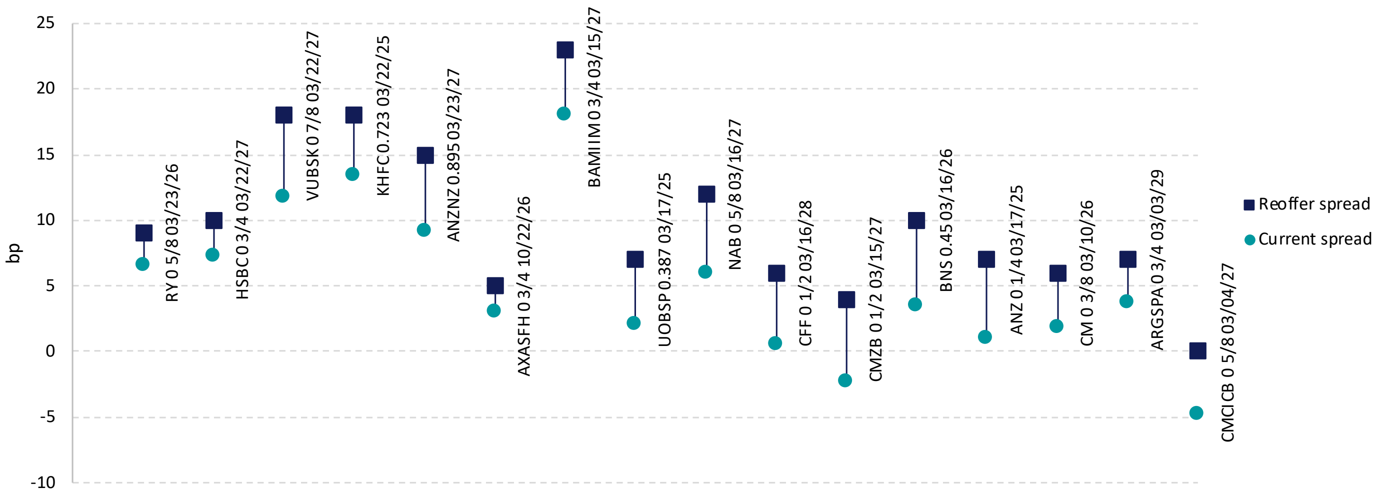
Spread development by country



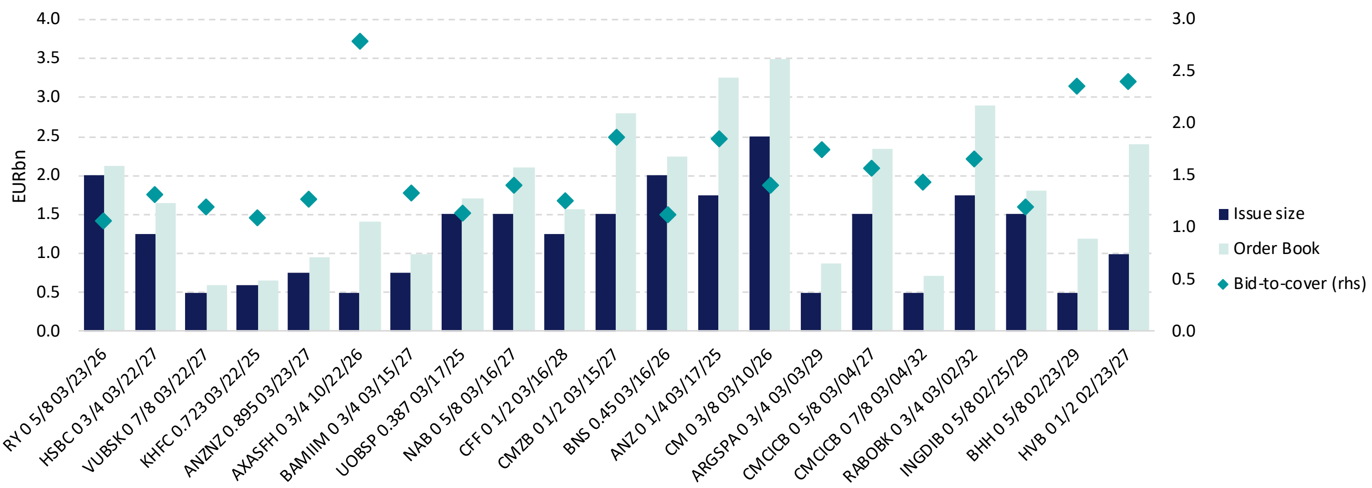
Covered bond performance (Total return)



Spread development (last 15 issues)



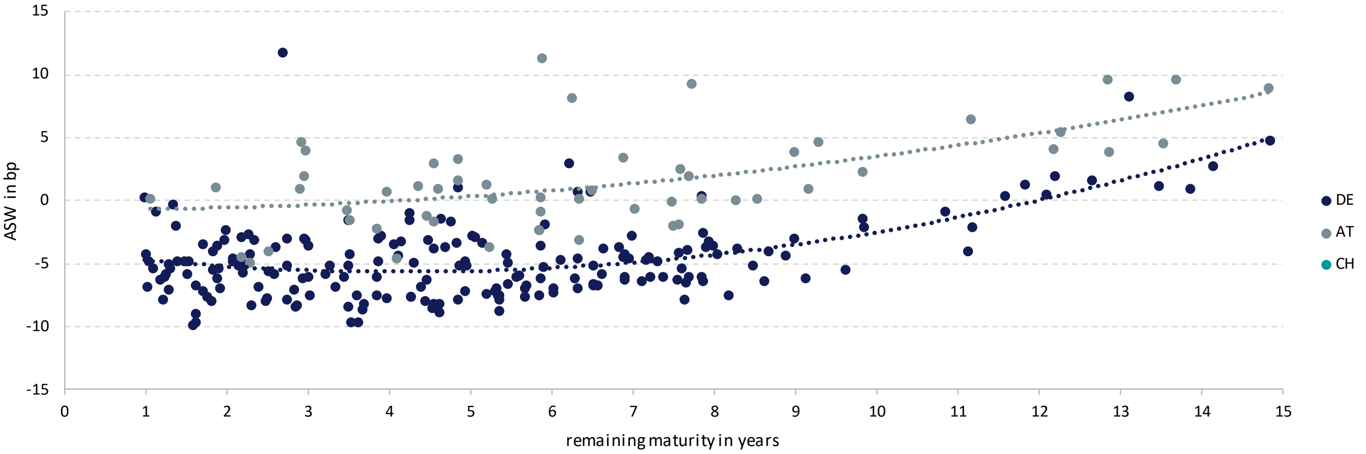
Order books (last 15 issues)



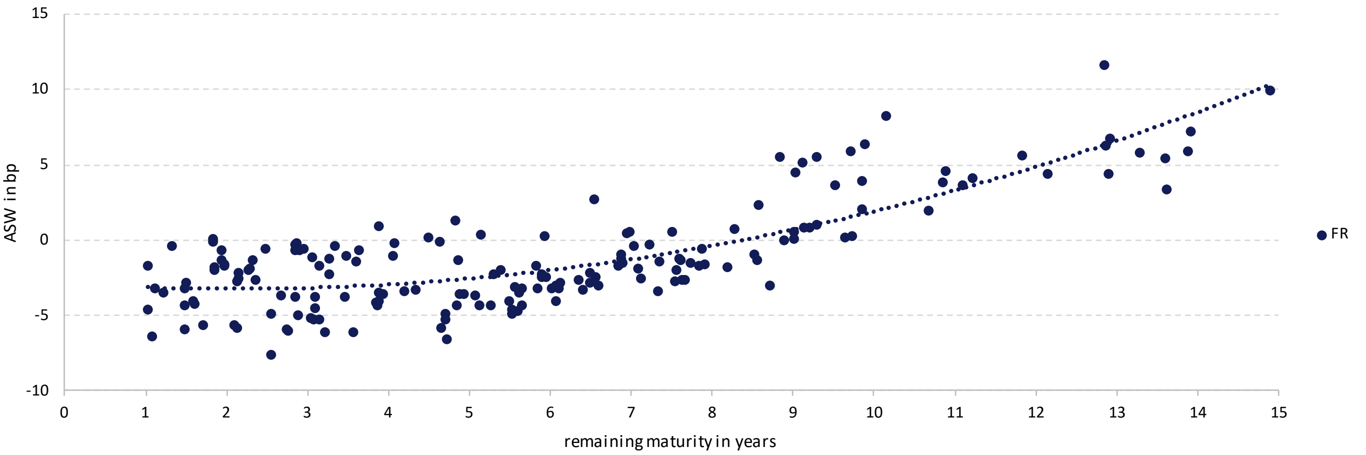
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

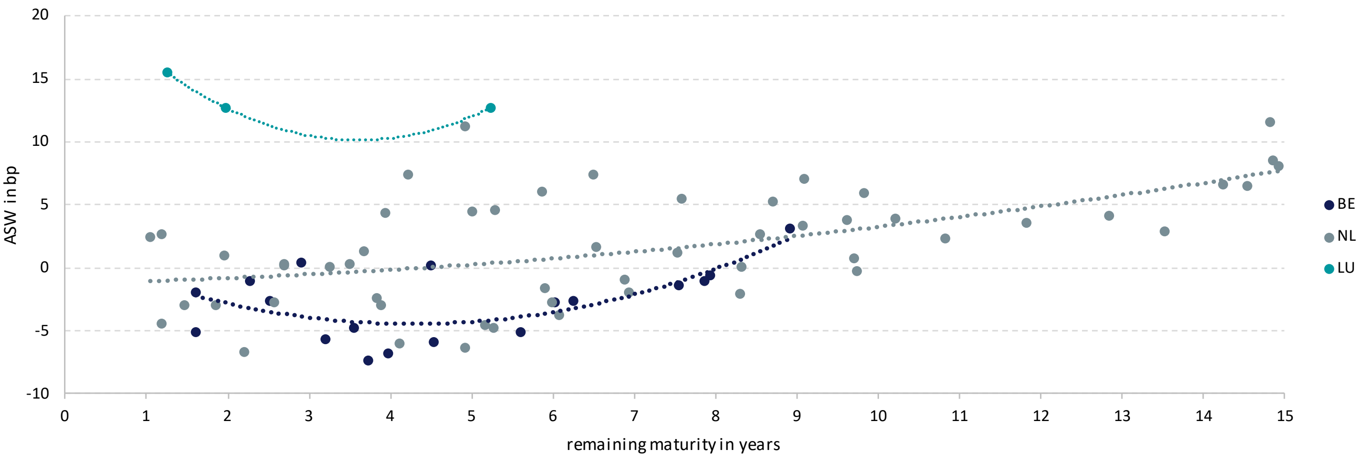
DACH



France



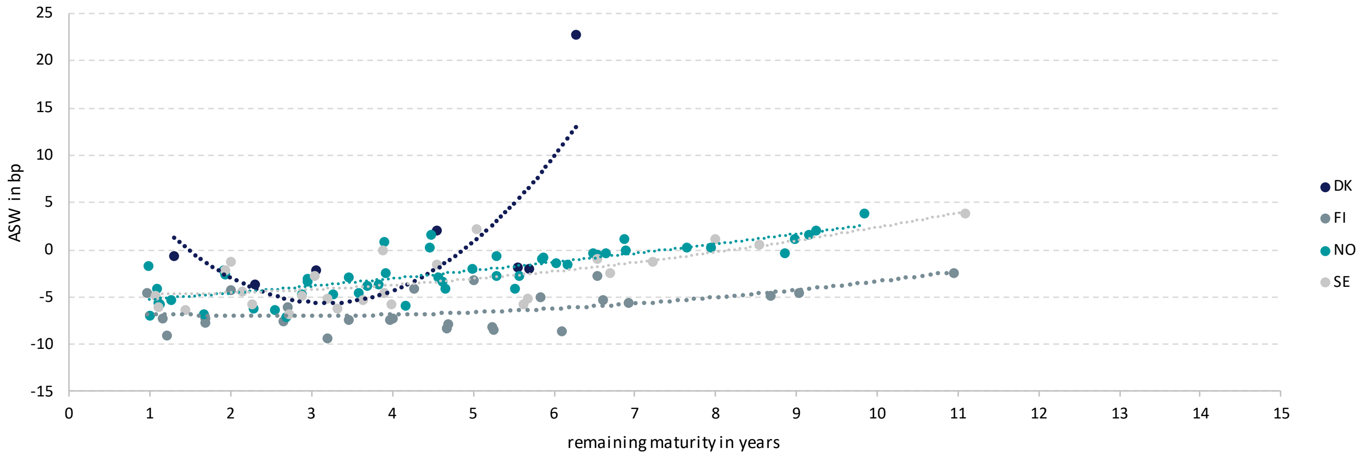
Benelux



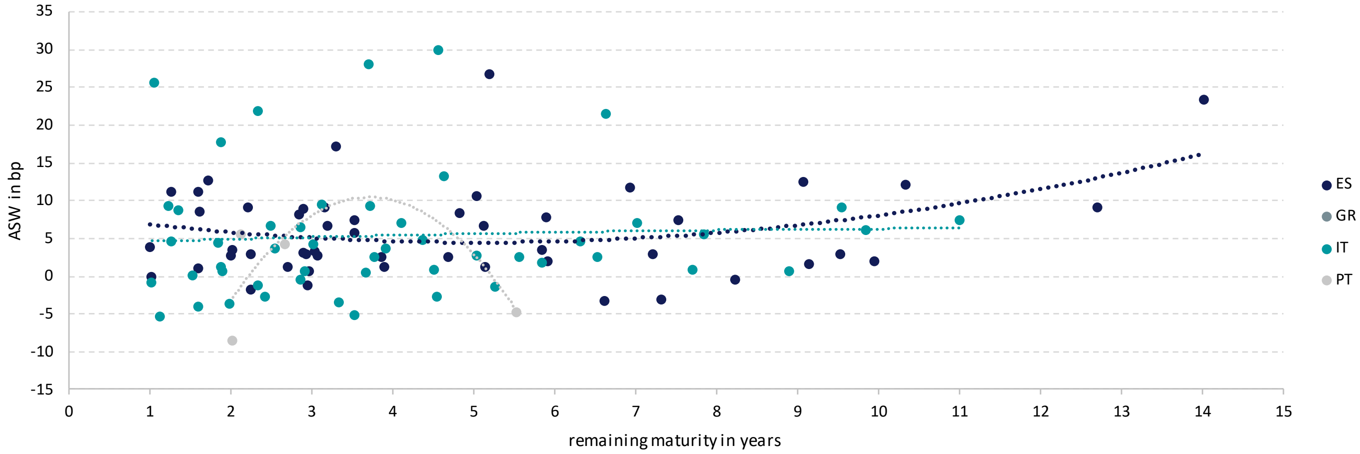
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

NORD/LB

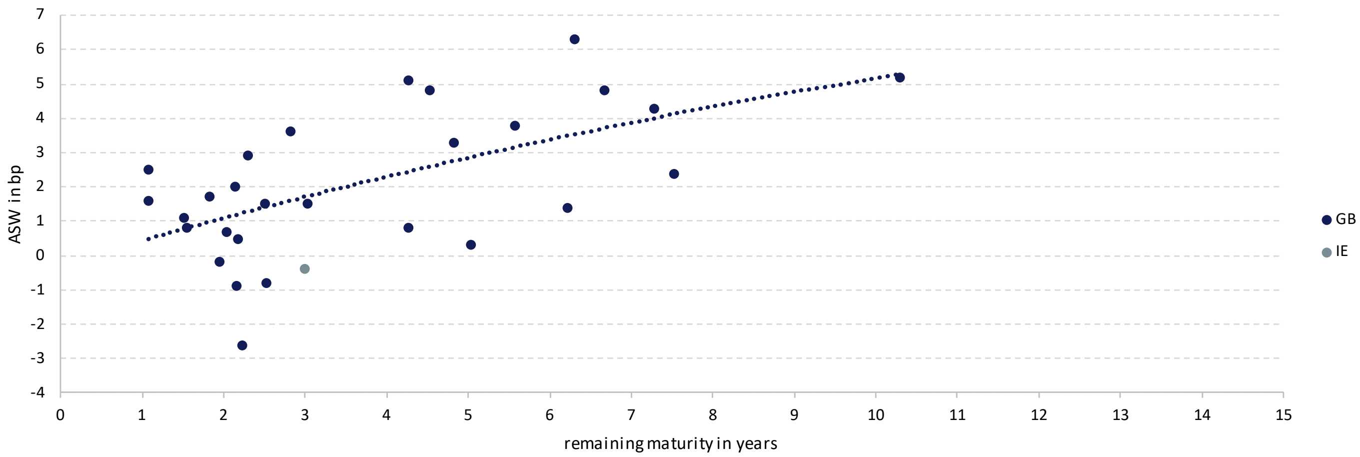
Nordics



Southern Europe

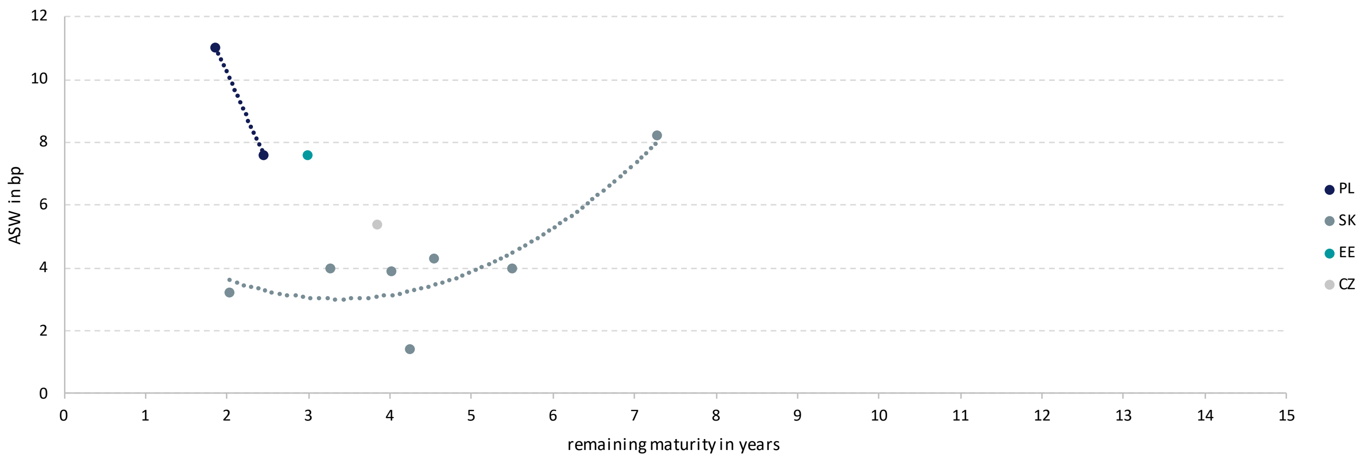


UK/IE

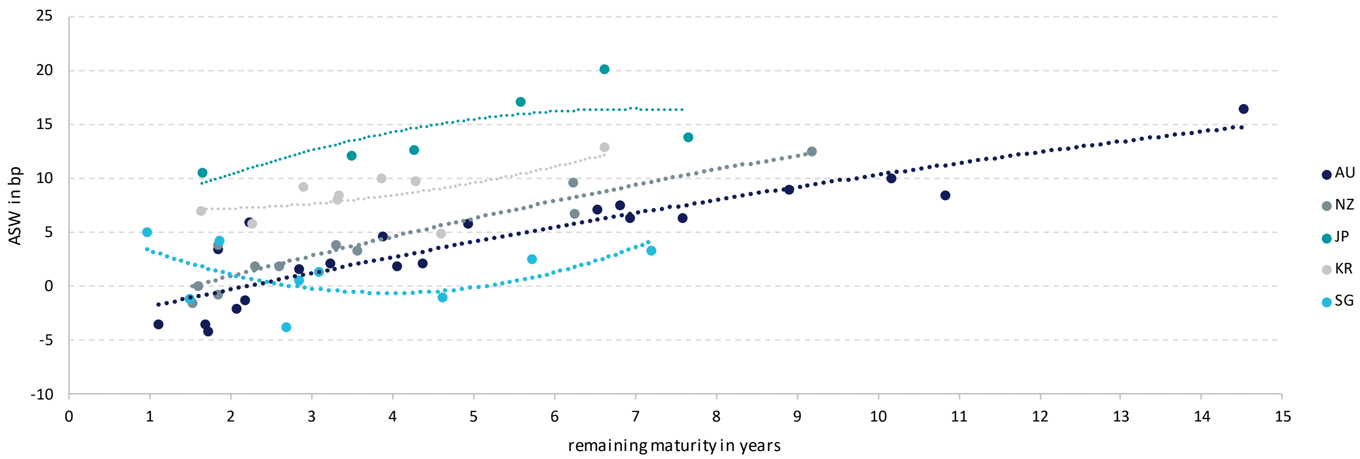


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

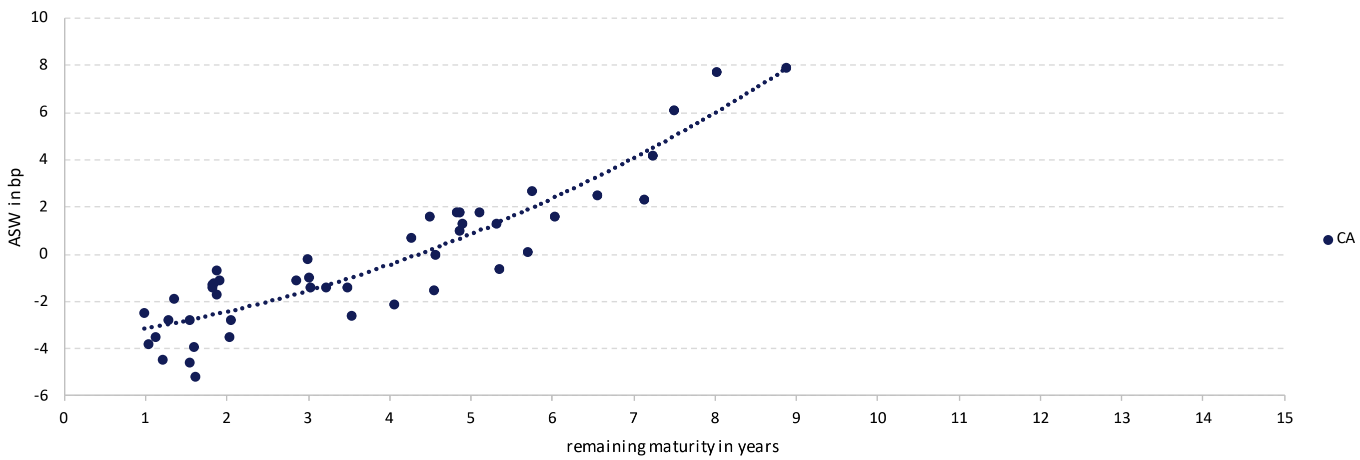
CEE



APAC



North America

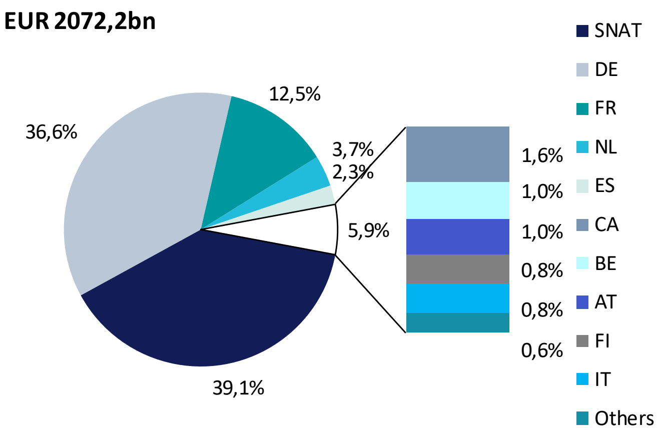


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

Charts & Figures
SSA/Public Issuers

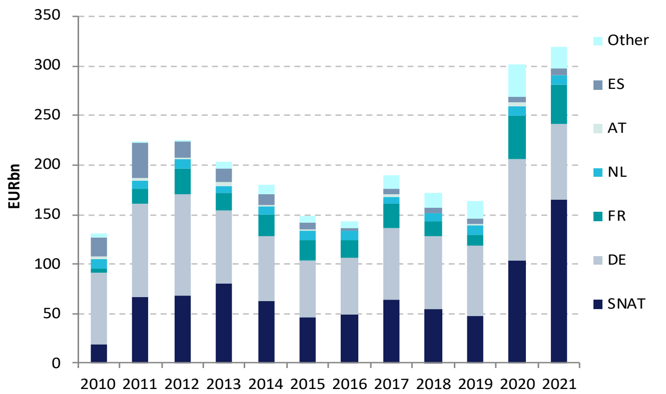
Outstanding volume (bmk)



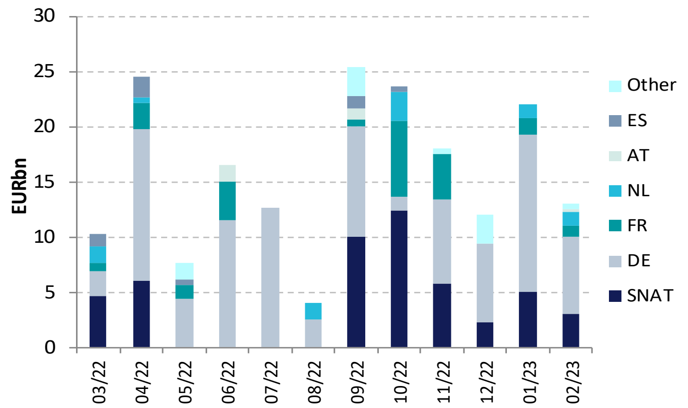
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	809,7	201	4,0	8,5
DE	758,3	577	1,3	6,7
FR	259,4	181	1,4	6,6
NL	75,9	69	1,1	6,5
ES	46,8	59	0,8	4,8
CA	33,2	22	1,5	5,3
BE	21,7	25	0,9	13,4
AT	21,2	23	0,9	4,7
FI	17,4	21	0,8	6,0
IT	16,8	20	0,8	5,3

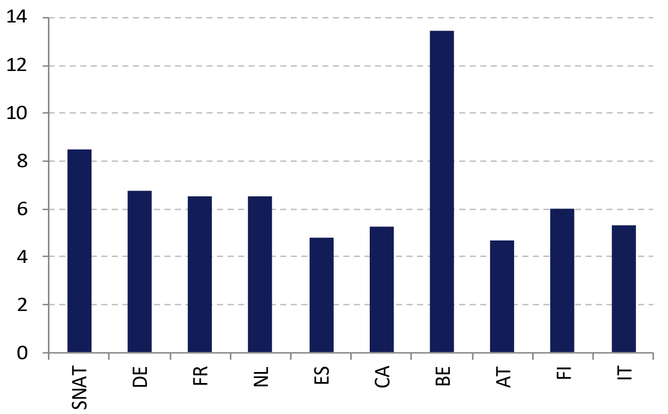
Issue volume by year (bmk)



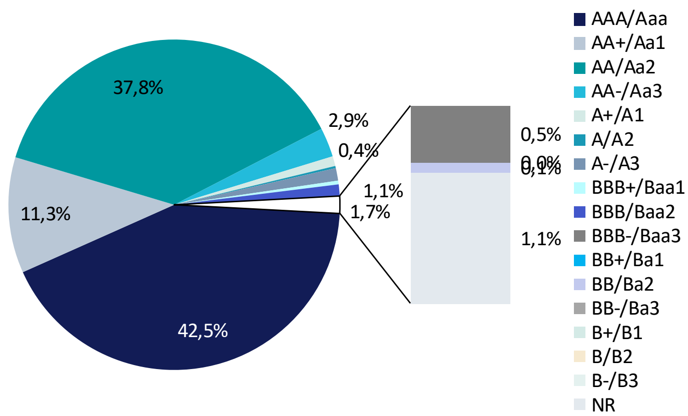
Maturities next 12 months (bmk)



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

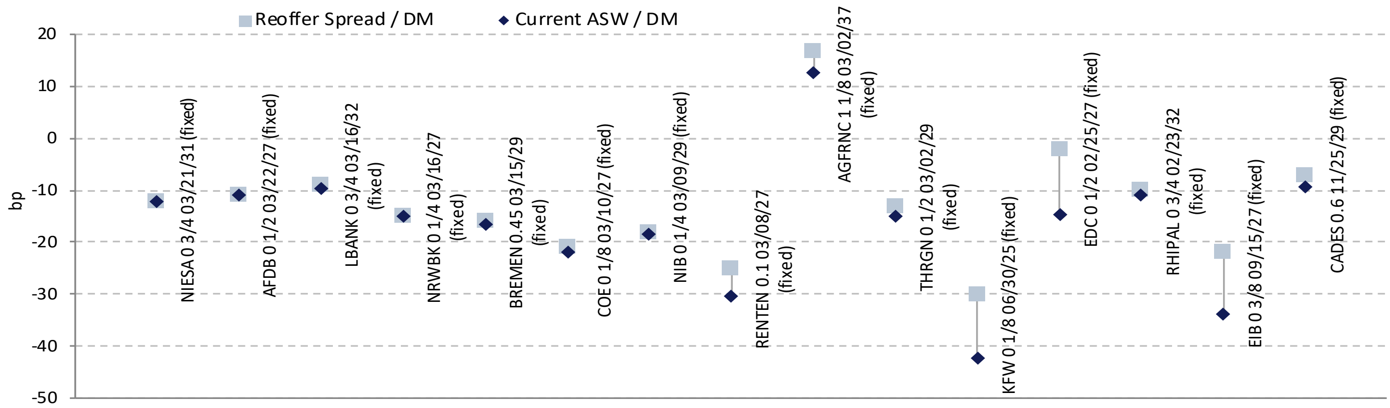


Rating distribution (vol. weighted)

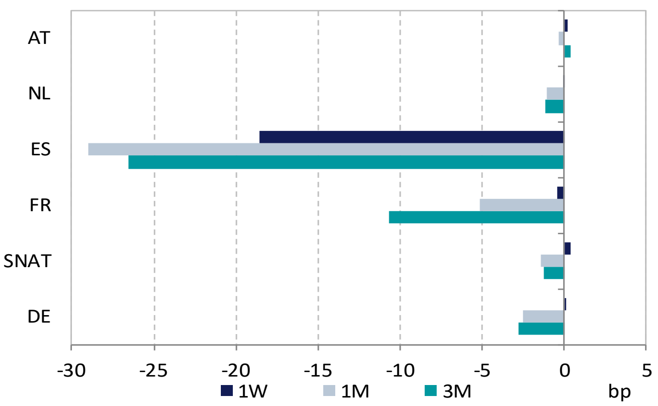


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

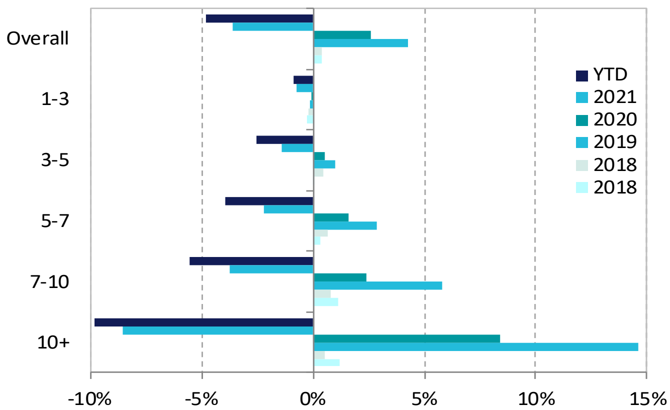
Spread development (last 15 issues)



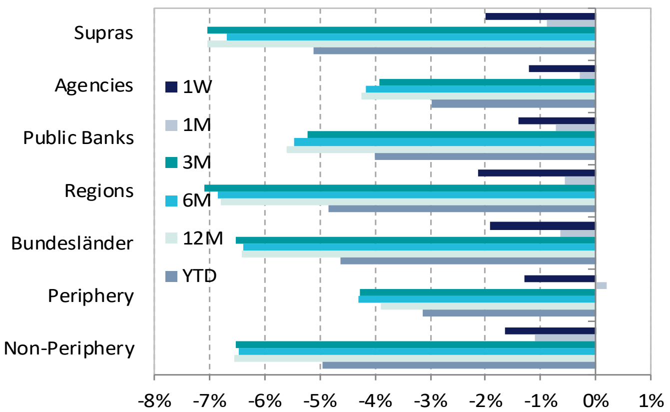
Spread development by country



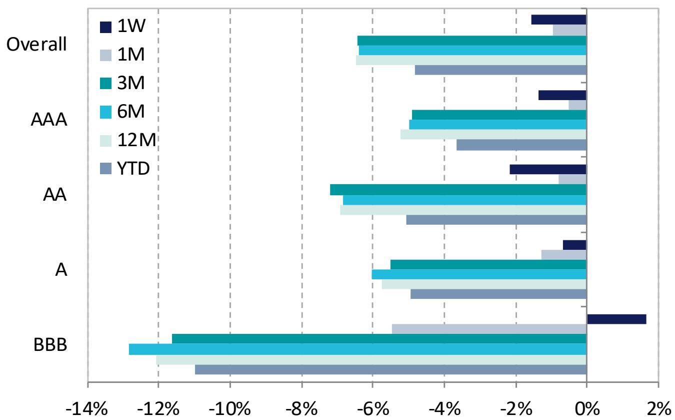
Performance (total return)



Performance (total return) by regions



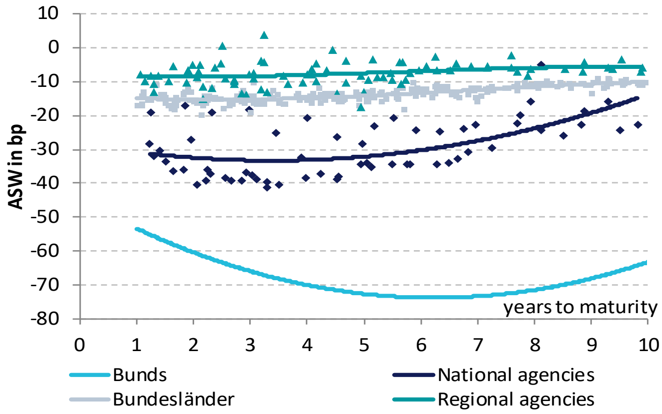
Performance (total return) by rating



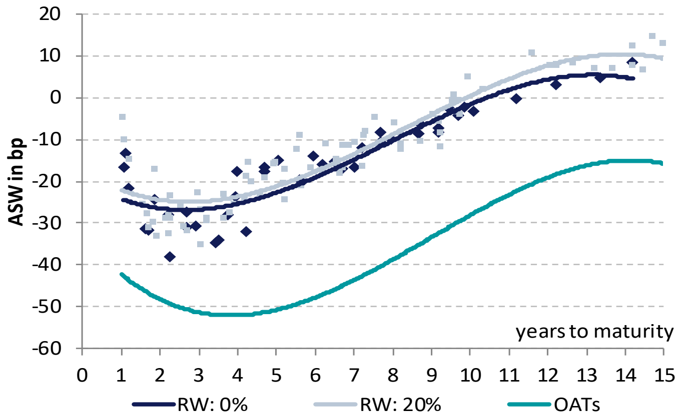
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

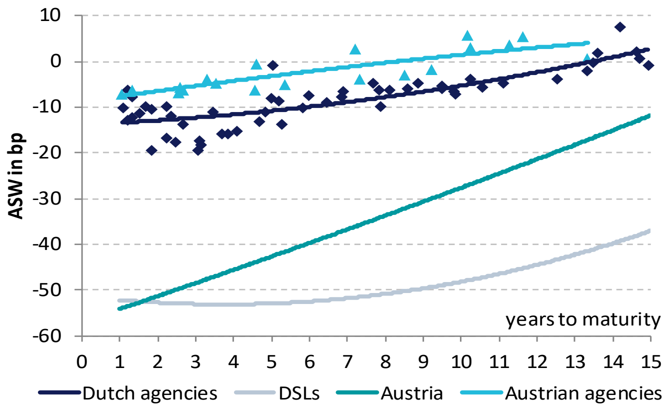
Germany (by segments)



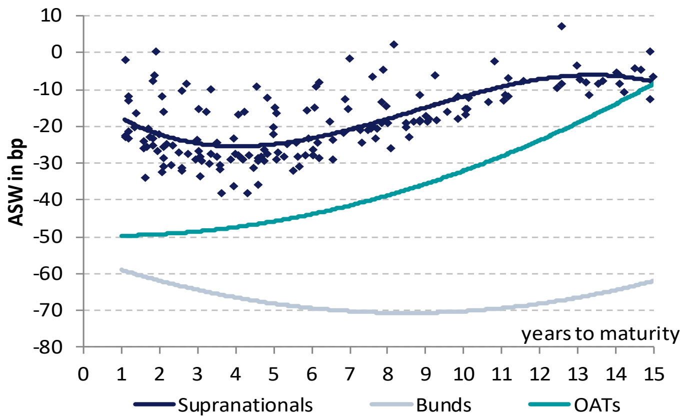
France (by risk weight)



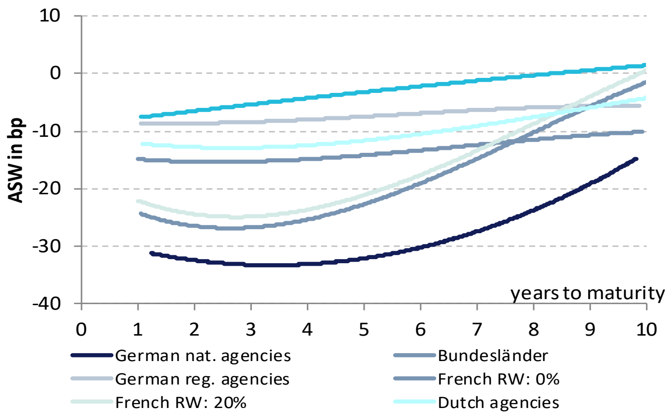
Netherlands & Austria



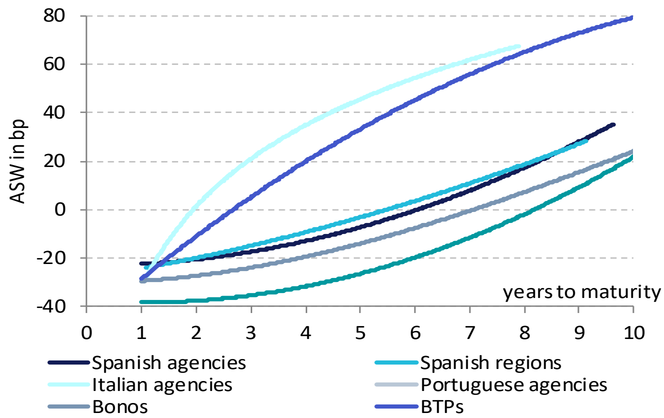
Supranationals



Core



Periphery



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

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
09/2022 ♦ 09 March	▪ Transparency requirements § 28 PfandBG Q4/2021 ▪ Issuer Guide SSA 2022: The Dutch agency market
08/2022 ♦ 02 March	▪ ECB: Not everyone can get their act together at a turning point ▪ Welcome expansion of the covered bond ESG universe: Banco BPM green covered bond ▪ War in Ukraine and sanctions on Russia: spotlight on the European banking landscape
07/2022 ♦ 23 February	▪ ECB banking regulator also views the residential real estate market as a potential risk driver for banks ▪ Development of the German property market ▪ Beyond Bundeslaender: Paris metropolitan area (IDF and VDP)
06/2022 ♦ 16 February	▪ PEPP reporting: Finish line in sight, but no photo finish expected ▪ DZ HYP issues inaugural green Pfandbrief: ESG market in Germany continues its growth trajectory
05/2022 ♦ 09 February	▪ ECB: full speed, throttling, U-turn – or wrong turn? ▪ Insurance companies as covered bond investors: the bank-insurer nexus
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?

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

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

Transparency requirements §28 PfandBG (quarterly update)

Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

Issuer Guide – German Laender 2021

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – Supranationals & Agencies 2019 (update planned for 2022)

Issuer Guide – Down Under 2019

Fixed Income Specials:

ESG-Update

Face-saving ECB decision: Hawks have won – for now

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 PEPP (Pandemic Emergency Purchase Programme)

Appendix
Contacts at NORD/LB

Markets Strategy & Floor Research

Jan-Phillipp Hensing
SSA/Public Issuers

+49 172 4252877
jan-phillipp.hensing@nordlb.de

Dr Frederik Kunze
Covered Bonds/Banks

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

Melanie Kiene, CIIA
Covered Bonds/Banks

+49 172 169 2633
melanie.kiene@nordlb.de

Dr Norman Rudschuck, CIIA
SSA/Public Issuers

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

Sales

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

Origination & Syndicate

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

Treasury

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

Trading

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

Sales Wholesale Customers

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

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