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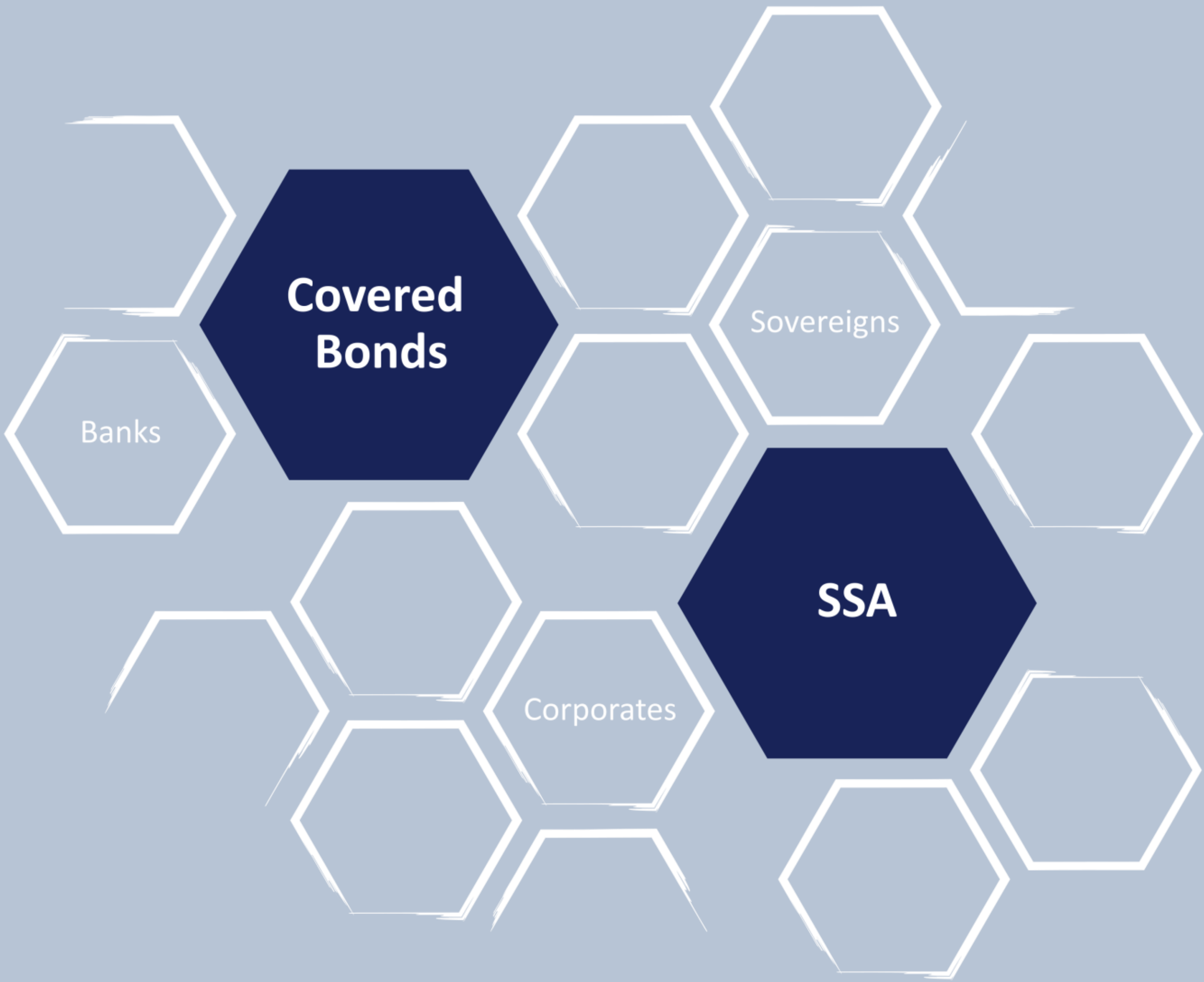

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

13 July 2022 ♦ 23/2022

Marketing communication (see disclaimer on the last pages)

Finanzgruppe

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Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze // Stefan Rahaus

The primary market: two non-EEA issuers mark the start of H2 2022

In the previous edition of our weekly publication, we reviewed the first half of 2022 in addition to offering an outlook for the remaining months of the year (cf. NORD/LB Covered Bond & SSA View dated 06 July). Following a highly dynamic first six months of the year in terms of primary market activity, we are expecting the second half of the year to be slightly less hectic. However, the summer break does not appear to have started just yet. For example, two issuers from outside of the European Economic Area (EEA) made an appearance on the market over the past five trading days, namely Westpac Securities New Zealand (WSTP) and Korea Housing Finance Corp. (KHFC). The deals placed by these issuers marked the start of issuance activity in the second half of the year. Last Thursday, WSTP brought a bond worth EUR 750m with a term of 3.5 years to market priced at ms +30bp, which generated an order book of EUR 1bn with a bid-to-cover ratio of 1.3x. Following the announcement of its deal and the investor calls held in the previous week, KHFC issued a 4y covered bond on Tuesday of this week in the amount of EUR 500m at ms +40bp (order book: EUR 560m). As with previous EUR benchmarks, the KHFC deal was a bond in a sustainable format in the form of a social covered bond, also due to the public mandate of the issuer. However, the issue is in actual fact the first KHFC issuance under the newly launched covered bond programme (USD 15bn). Up to now, the EUR benchmark issues have all been issued on a standalone basis. The largest share of this deal was allocated to accounts in the UK (27%), closely followed by the Nordics (26%) and Benelux countries (20%). Slovakia claimed a share of 8%, with 6% going to Germany. In terms of the breakdown by investor group, the category of asset managers & fund managers (62%) dominated proceedings. While the WSTP deal brought the issuance volume from New Zealand in the current year to a total of EUR 2.25bn (three bonds), the issuance volume from South Korea in the same period now totals EUR 1.6bn, also spread across three deals, following the fresh KHFC bond. Due to the market situation, both issuers opted for a pre-fixed issue spread with a double-digit new issue premium in order to generate clarity for investors in advance. The still fragile secondary market environment, in which longer maturities and names from the second tier continue to be under pressure, prompted both issuers to choose a term to maturity of less than five years, which is currently the most popular segment among investors. We are now expecting a marked slowdown in primary market activity up to the middle of August, which should lead to an alignment of the high new issue premiums and the still significantly more expensive prices for old bonds on the trading screens (where, according to our traders, the bid side is not resilient).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
KHFC	KR	11.07.	XS2502879096	4.0y	0.50bn	ms +40bp	-/Aaa/AAA	X
WSTP NZ	NZ	07.07.	XS2500847657	3.5y	0.75bn	ms +30bp	AAA/Aaa/-	-

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

EUR sub-benchmark segment: DekaBank issues European Covered Bond (Premium)

In the EUR sub-benchmark segment, DekaBank approached investors with a new public sector Pfandbrief at the start of the new trading week to issue the first Pfandbrief in accordance with the revised legislative framework in this sub-segment. The deal now carries the designation "European Covered Bond (Premium)". After starting the marketing phase in the area of ms +13bp, the EUR 250m (5y) bond tightened by four basis points to ms +9bp. With an order book volume of EUR 600m, this deal featured a bid-to-cover ratio of 2.4x. The bond was primarily allocated to investors in Germany (90%), followed by the Nordics (5%), Italy (3%) and Austria (2%). In the breakdown by investor group, banks dominated at 88%, while central banks/OI claimed a share of 10%. Following this latest deal, the total volume issued in the EUR sub-benchmark segment in the year to date comes to EUR 5.3bn, with Germany accounting for EUR 1.85bn of this amount.

The post-8 July 2022 covered bond world

The harmonisation project for the European covered bond markets really started picking up speed by 2019. This period was shaped by a multitude of developments and question marks on both the issuer and investor side. The date of 8 July 2022 has always been kept in view, since revised national legislation had to take effect together with the adjustments to the CRR from this date onwards. Covered bond issues in the European Economic Area (EEA) now take the form of the "European Covered Bond (Premium)". The long-term positive effects of the project have also been confirmed by the rating agencies, who, overall, attest to a net improvement in the credit quality of EEA covered bonds based on the minimum standards. However, varying degrees of progress and divergent approaches have emerged in the course of the harmonisation project, although this is not least a consequence of the different adjustment requirements at national level. Once again, we can take Spain as an example here. Spain was one of the jurisdictions that had to extensively revise key aspects of the "old legislation". In our opinion, the communication from the Spanish central bank on 4 July stating that the new legislation (Royal Decree 24/2021) will apply on 8 July 2022 and that the label "European Covered Bond (Premium)" may be used by the relevant banks has a certain symbolic impact. The Federal Financial Supervisory Authority in Germany (BaFin) has now also presented an overview (German only) of Pfandbrief banks with reference to this designation. For some market players, some question marks will certainly remain during the transitional phase. This applies not only, but especially to covered bonds from third countries with regard to actual suitability within the framework of LCR management, where the transparency requirements from Article 14 of the Covered Bond Directive must be taken into account in future. There is also a high level of support from the covered bond community in connection with the required transparency. After all, the Covered Bond Label Foundation already announced on 21 June that its own label had been fully aligned with the new Covered Bond Directive. Fundamentally speaking, we welcome the improved clarity with regard to many aspects of the covered bond landscape. At this juncture, the requirements for covered bonds resulting from the minimum standards, with the possibility of deferring the maturity, should be highlighted in particular. For example, from our perspective, the objective, legally defined "trigger events" for a maturity extension to soft bullet covered bonds open up this subcategory to a much broader group of investors, among other aspects. Until now, maturity extensions for soft bullet bonds were regulated by the programme documentation, whereas they are now enshrined in law.

ECB publishes results of climate stress test and identifies need for action

On Friday, the European Central Bank (ECB) published the data related to its climate stress test. In total, 104 major banks took part in the review, which consisted of three modules. The ECB took a closer look at the banks in terms of a) their own capacities for conducting climate stress tests, b) their dependency on carbon-intensive industries and c) their results in the different scenarios over several time horizons. Only 41 banks had to go through the third part of the analysis with a view to proportionality. At present, the stress test has no impact on capital requirements, but the data will be included in the Supervisory Review and Evaluation Process (SREP). The banks were also given individual feedback, including recommended measures. According to the ECB, these are also in line with the best practices on climate risks announced for Q4 2022. The results reveal that around 60% of the banks have no framework for climate stress tests at all and therefore do not feed in such risks to credit risk models. Only 20% already factor in climate risks to the lending business. On the revenue side, it was clear that more than two-thirds is generated from transactions with non-financial companies in industries with high greenhouse gas emissions. In the third module, which only larger banks had to complete, the focus was on devising forecasts for losses in extreme weather events and in transitional scenarios over different time horizons. Here, a clear difference was revealed at issuer level in terms of physical risks. For example, the extent to which any given bank is vulnerable to drought and heat scenarios depends on the portfolio composition (geographical, sector). For the 41 major banks, the stress test comprising the three modules determined credit and price losses in the volume of EUR 70 billion. The ECB writes that this estimate "significantly understates the actual risk", since a) in this early phase there is little data available, b) the banks' forecasts only partially capture climate factors, c) economic downturns and second-round effects are not taken into account in the scenarios and d) the exposures covered by the test represent only around a third of the total exposures of the 41 banks. The ECB's climate stress test for banks fits into the general trend of a more pronounced focus on climate-related issues in the banking sector. In terms of the issuance behaviour of banks, we also see at least an indirect connection with the ECB's green banking supervision. After all, in this context, also green covered bonds again represent a suitable vehicle for banks seeking to drive forward their own "green transformation".

Market overview SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

KfW's half-year update

In a difficult and volatile environment – and not just for KfW – the German industry giant nonetheless looks back on a successful first half of 2022 in terms of conducting its refinancing via the capital markets. According to the press release, the funding volume year-to-date amounted to an equivalent of more than EUR 62bn at the beginning of July (as at 30 June 2022: EUR 56.6bn). KfW has therefore already reached around 73% of the funding volume originally planned at the start of the year, which is a higher level compared with the same time periods in previous years. "We are facing extraordinary times. This is also reflected at the capital markets, where we have to deal with high volatility, increasing inflation and a turning interest environment. The above-average funding activity in the first half of 2022 was a strategic decision to position ourselves well for the challenges ahead. We have seen strong investor demand in recent months, not least of all due to the good credit rating and liquidity of our bonds, which we always keep as our focus," states Tim Armbruster, Treasurer of KfW. The product portfolio is certainly comprehensive and is undoubtedly one reason why demand from investors remained high, with others including the broad diversification across currencies and the high liquidity of KfW bonds. As at 30 June 2022, the euro remains the most important currency with a share of 58% of total funding volume. The US dollar share was at 24% while the British pound accounted for 10% of KfW's funding mix. As at 30 June 2022, 15 benchmark transactions (including taps) in EUR and USD of the equivalent of almost EUR 36.6bn represented 64.6% of the funding volume. This includes all important maturities (3, 5, 10 and 15 years). As announced in its funding outlook for the year 2022, KfW tapped up one of its EUR benchmark bonds to a volume of EUR 7bn (from EUR 6bn) for the first time in March 2022, thereby continuing to pursue its goal of increasing the liquidity of its bonds even further. The volume of private placements tailored to individual investor needs was at an equivalent value of EUR 6bn at the end of June and therefore significantly higher as in the same period of the previous year. Investor Relations said this development was mainly driven by a considerable increase in the euro callable business due to the ongoing rise in interest rates in the euro area. Furthermore, the demand for niche currencies such as CNH (Chinese renminbi) and ZAR (South African rand) was once again high in H1/2022.

Since 2014, green bonds totalling more than EUR 50bn issued

The volume of "Green Bonds – Made by KfW" issued this year amounts to an equivalent of EUR 7.8bn. This sum includes the three recent green bond transactions (EUR 4bn / HUF 30bn / HKD 300m), issued at the beginning of July (as at 30 June 2022: EUR 3.8bn). So far, ten green transactions in seven different currencies have been conducted in 2022. KfW had already exceeded the threshold of EUR 50bn in terms of its total green bond issuance volume in April 2022. As a reminder, KfW has been active in the green bond market since 2014 and is one of the world's largest issuers of green bonds.

Looking ahead: KfW raises funding target to EUR 90bn

Due to KfW's involvement in various initiatives to mitigate the economic and social consequences of the war in Ukraine and due to the high demand for promotional funds in the domestic market, KfW is raising its capital market funding target for the year 2022 to EUR 90bn. We had prepared our readers in advance for a target above EUR 80-85bn. If the German government had again prepared a package, this would possibly have reduced funding requirements, though KfW is breaking record after record in these times of crises. As the financial support related to the war in Ukraine also involves short-term bridging measures, KfW also plans to make greater use of its money market activities in H2/2022. According to Investor Relations, KfW's goal is to develop into a digital transformation and promotional bank, and to operate even more efficiently and effectively in the future. The importance and indispensability of greater agility and efficacy crystallised not only during the COVID-19 pandemic, but in particular also in the wake of the outbreak of the war in Ukraine. In close cooperation with the German government, KfW succeeded in initiating first measures to provide quick and unbureaucratic support to those affected by the war within a few days of Russia's invasion of Ukraine. In the course of the past few weeks, these initiatives have been expanded and primarily target German companies affected by the war or by sanctions, in particular companies in the energy sector. Against the backdrop of rising inflation and the monetary policy turnaround by central banks with declining bond purchases and rising interest rates, KfW expects the environment to remain challenging and capital markets to remain volatile during the remainder of the year. Due to the explicit federal guarantee, the broad diversification of its funding instruments and its excellent access to the capital market, KfW is confident of being able to successfully refinance the remaining targeted volume of around EUR 28bn for 2022 via the capital market (full targeted volume: EUR 90bn), even in this volatile environment. Contingent on market developments, KfW plans, alongside the EUR, to continue to focus on the strategically important currencies of the USD and GBP in Q3 and Q4. Depending on the disbursements under the green bond framework, further green bond issuances are also planned.

KfW: everyone's talking about green bonds

KfW's Green Bond framework, which has been expanded to include a third project category, has been in effect since January 2022. In addition to the project categories of renewable energies and energy-efficiency, the new framework now includes the category of sustainable mobility. It therefore addresses the emission-intense transport sector, which has accounted for around 20% of greenhouse gas emissions in Germany in recent years. KfW also continues to be an active investor in green bonds with a targeted green bond portfolio of EUR 2bn to EUR 2.5bn. In the first half of 2022, KfW has made green bond investments totalling around EUR 331m. The portfolio volume currently amounts to approx. EUR 2.3bn. As a frequent issuer of green bonds and also acting as an investor in green bonds, KfW aims to steer capital investments into green projects and consequently to act as a catalyst in order to drive the global transformation process on the capital markets. With the continued implementation of its Sustainable Finance Concept, KfW also puts a major focus on bringing its new financing activities in line with the Paris Climate Agreement and making the impact of its financings measurable and transparent.

Primary market

Normally, we take a look at fresh deals in this section. However, it is important we share the following information, which we could not fit into the last publication: the Nouvelle-Aquitaine region in France, located along the Bay of Biscay on the Atlantic Ocean, issued a 20-year sustainability bond of EUR 100m at 30bp over OAT under the rather unfamiliar ticker of NOUAQU. It therefore almost doubled its overall outstanding volume. We are curious to see if this name will soon appear in the context of the ECB purchase programmes. Among the French regions, this has so far only been the case for the Greater Paris area (IDF and VDP). Let us now turn to the transactions that have taken place since last Wednesday: the first three deals all featured maturities of five years. However, they were placed at different levels so there was something for every kind of investor: OKB (sustainability bond) issued EUR 500m at ms -9bp, while SCHHOL placed EUR 1bn at ms -17bp; the Latin American bank CAF (Corporacion Andina de Fomento) also placed EUR 500m, albeit at ms +90bp. At EUR 780m, the books were least full for CAF, with the guidance for this deal having also been in the area of ms +90bp. The order book for the Kiel-based SCHHOL grew to EUR 2.35bn, while the spread narrowed by 1bp over the course of the book-building process. The Austrian ESG deal featured an oversubscription ratio of 7.8x, with an ultimate order book of EUR 3.9bn. Here, the guidance had started in the area of ms -9bp. Despite a tightening of 3bp, many investors remained on board. After an absence of more than two years in the EUR segment, investors seemingly still have appetite for this name and quality. The bond issued by Île-de-France was also issued in sustainable format. Under the ticker IDF, it placed EUR 700m over a maturity of ten years. The deal was placed at OAT +40bp (interpolated between FRTR 0% 05/25/32 & FRTR 2% 11/25/32). The bond was oversubscribed more than twice, tightening 2bp versus the guidance in the process. The fullest books were again observed for the EU: it opted for a new bond (7.3y and EUR 5bn) and a tap for its 2041 maturity (EUR 3bn). Investor interest brought the orders to EUR 33bn at ms -11bp and EUR 28bn at ms +24bp, respectively. Both deals narrowed by 2bp versus their respective guidance and were both allocated to the NGEU programme, with EUR 8bn of the new EUR 50bn target for the second half of the year now already raised. Last but not least, KfW: it tapped its 2032 bond by EUR 1bn at ms -15bp. Please refer to the previous two pages for further information on KfW. Finally, we would like to highlight two mandates: on Monday, Eurofima mandated for a five-year transaction. Initially, a total of EUR 500m (WNG) is being sought, with no other deals expected as of yesterday for the time being. The second transaction anticipated soon relates to the Asian Development Bank: aside from the fact that this deal will be a 10y benchmark, no details have been publicly disclosed yet.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
EU	SNAT	11.07.	EU000A3K7MW2	7.3y	5.00bn	ms -11bp	AAA / Aaa / AA+	-
IDF	FR	08.07.	FR001400BCS5	10.0y	0.70bn	ms +9bp	AA / - / -	X
CAF	SNAT	06.07.	XS2495583978	5.0y	0.50bn	ms +90bp	A+ / - / AA-	-
SCHHOL	DE	05.07.	DE000SHFM840	5.0y	1.00bn	ms -17bp	AAA / - / -	-
OKB	AT	05.07.	XS2500414623	5.0y	0.50bn	ms -9bp	- / Aa1 / AA+	X

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

Cross asset
ECB preview: might the ECB go slightly further?

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

ECB meeting on 21 July: A question of the extent of the hike?

As of today, it can be safely assumed that the meeting of the most important decision-making body of the European Central Bank will be held in a market environment characterised by a heightened level of uncertainty. Even in the context of the turbulence seen so far in 2022, the volatility observed in some sub-segments of the international financial markets can be regarded as high. For the first regular ECB meeting in the second half of 2022 and also the first meeting after the end of net purchases under the APP on 1 July, the central bank has already promised its first key rate measure in more than six years (rate cut on the previous occasion) and is even planning to hike all three reference rates (for the deposit facility, the marginal lending facility and main refinancing operations). The last interest rate hike was eleven years ago and for many market players we have therefore entered wholly new territory. The extent of the necessary increase in the Governing Council's view was also discussed recently in light of reports coming out of the US Federal Reserve.

July meeting: importance of minutes diminished by subsequent ad-hoc meeting?

On 7 July 2022, the ECB presented the minutes of the key rate meeting on 8 and 9 June. While possible tools to combat potential fragmentation of the single currency area were discussed to a lesser extent, the debate in the ECB Governing Council focused very much on the first interest rate hike in July. The end of the APP on 1 July that was decided at the meeting was seen as a necessary requirement to ensure consistency with the ECB's own forward guidance. The conditions for interest rate hikes in relation to expected inflation developments were deemed to have been met – at least according to ECB chief economist Philip Lane. His comments on the size of the interest rate hike revealed several factors justifying a 25-basis point increment. A moderate initial increase would be most likely to trigger an "orderly market adjustment" in the prevailing environment of heightened uncertainty. In addition, longer-term inflation expectations remain anchored at the ECB's target and the yield curve reflects the assessment by market participants that several moderate rate hikes will follow in 2022 and 2023 and inflation is expected to return to target in 2024. On the basis of the ECB minutes, higher interest rate hikes in quick succession are more likely to be associated with upside risks to inflation expectations. An excessive reaction to market interest rates is also feared if the rate hike is too large, although deferring a larger increment would not make a material difference. The majority view was for 25 basis points, with some council members initially in favour of retaining the option for a larger increase. Ultimately this option was "postponed" to the September meeting. We find it quite surprising that the anti-fragmentation tool was hardly discussed, as the "emergency meeting" that followed shortly after the lowering of the key rate showed that the ECB Governing Council did not pay sufficient attention to this topic (even if unintentionally). Hardly a week passed before the big cheeses at the ECB convened again spontaneously.

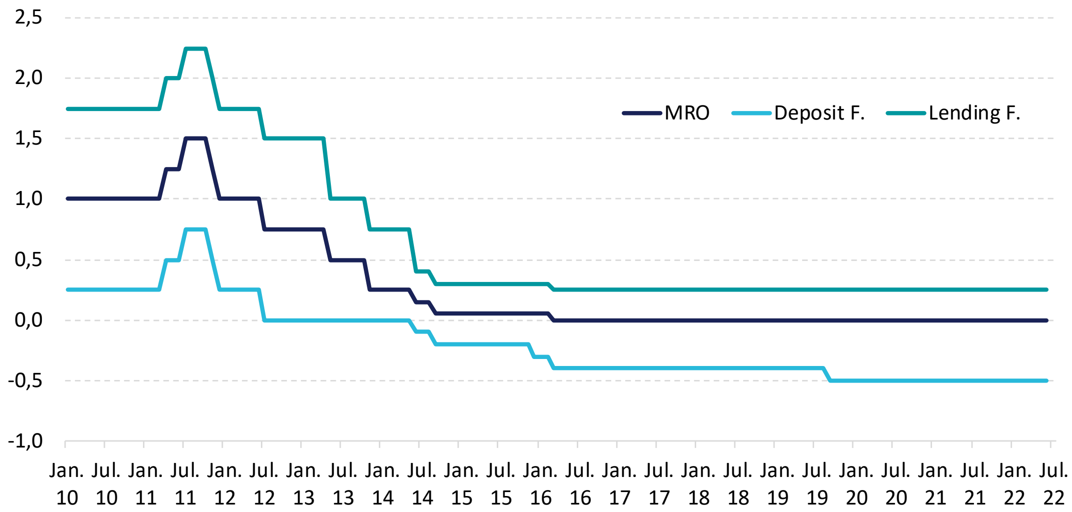
Ad hoc meeting: ECB disappoints with its statements across the board – spreads react nevertheless

Rarely has the Governing Council had to convene for a special meeting. It did so most recently on a large scale in 2020, when it created and subsequently topped up the PEPP (Pandemic Emergency Purchase Programme). The reason for the meeting on 15 June quickly became clear, namely the worrying surge in bond yields, including those of Italy, and thus also the spread versus Bunds (focus: 10 years). The yields of other countries could also have been mentioned, but Italy kept popping up in the media coverage and was therefore clearly at the centre of the market turbulence. The sheer reaction was impressive. The meeting alone instilled a certain amount of calm and around 30 basis points is a respectable step based on pure verbal acrobatics. The statement afterwards did not merit a special session. The ECB wants to use reinvestments under PEPP flexibly, although to be honest it has been doing this for a long time anyhow, pretending to the public that it is sticking to a certain percentage but intending to lower it internally anyway. It can deviate from this portions – based on the adjusted ECB capital key – in any case, and this applies not only to the already terminated PEPP (keyword: net purchases), but also to the APP (Asset Purchase Programme), for which net purchases were ended on 1 July. We have always welcomed the fact that the Eurosystem acts flexibly, that the different portfolios literally "breathe" and that the ECB and its national central banks do not slavishly adhere to percentages. Consequently, in our opinion, a special session would not have been needed for this either. The news flow could have been more exciting if the ECB had put something tangible on the table on another front. Instead, the Governing Council decided to instruct the relevant bodies in the Eurosystem to "accelerate the completion of the design of a new anti-fragmentation instrument". We would have preferred this statement, which could almost have been scribbled on a post-it note, and only underlines that work is being done internally, which is to be assumed in any case given the turning point in monetary policy, to be more specific. The ECB therefore wants to step up the fight against the growing yield gaps between government bonds of different euro states. At this point, we would like to refer once again to the ECB's Outright Monetary Transactions (OMT) programme, which was adopted in September 2012. In the spirit of "Whatever it takes" (July 2012), the Securities Markets Programme (SMP), comprising approximately EUR 220bn, was terminated. To recap, not a single euro has flowed to date within the OMT, as the conditions for the euro states would have partially required them to surrender some sovereignty. What does this mean for the new instrument? No conditionality? This will be a difficult balancing act for the ECB. Certain political costs should already be included; in our view, the ECB should not give anybody a free ride. Monetary policy must not under any circumstances be dragged down by the fiscal policy of some countries, with Italy again serving as an example in this regard. With Mario Draghi at the helm of Italy, there are already personal interdependencies here in connection with monetary and fiscal policy. The ECB must also think of its responsibilities. Since it was founded, the ECB has repeatedly emphasised that it does not control the exchange rate with its actions, but purely inflation. Now it must be careful not to control individual spreads. The July meeting has therefore gained in relevance once again. The demands for a tool are not only being played out more and more intensively in the media, the expectation of a "big leap" has now also gained momentum again since our first classification of the special session.

What have we heard from the ECB since the last meeting?

Last weekend, ECB Governing Council member Robert Holzmann broached the idea of a drastic interest rate hike path for the rest of the year, if necessary. Should the inflation outlook not improve, he believes 50 basis points would be appropriate as early as July. Moreover, this step could then be followed by an increase of another 75 basis points at the meeting on 8 September. In an interview with the Kronen Zeitung, he advocated "clear steps". Holzmann clearly belongs to the camp of monetary policy hawks, so his statements are by no means a surprise. Governing Council member Ignazio Visco, on the other hand, stuck to the 25-basis-point hike at the July meeting and, in line with the majority in the Council, said he was potentially leaning towards a larger increase in September, but was thinking more 50 basis points than 75. Visco also stressed the data dependency of future interest rate hikes. Among others, Bundesbank President Joachim Nagel recently called for a cautious approach to the ECB's "crisis tool". As such, corresponding use of the tool to contain refinancing costs of individual member states would only be under exceptional conditions and on narrowly defined terms. This would be made more difficult anyhow by the "impossibility" of assessing the appropriateness of spread widening. In his view, risk premiums should not be contained by monetary policy. For Council member François Villeroy de Galhau, the development of an appropriate tool to combat unwarranted deviations in Eurozone bond markets is essential to keep inflation in check. In his words, the tool was therefore also a duty of the Governing Council. Back in June, he referred to the ECB's "no-limit commitment" to protect the single currency in the context of the emergency meeting. Actual use of such a tool would not even be necessary, according to Council member Yannis Stournaras, if the signal towards the financial markets was strong enough and "testing" was not an option. While Stournaras belongs to the dovish camp, Villeroy, in our opinion, has a more neutral position rather than a hawkish one.

The ECB's once symmetrical interest rate corridor has been out of sync since 2015



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

ECB projections: Next updates in September

What the minutes of the ECB's previous meetings not least show us is that the ECB projections are – as it were – lagging behind reality in the wake of current developments. This is certainly a harsh verdict for predictions, but it is quite understandable given the dramatic events in Ukraine. Doubts about the adequacy of assumptions in the ECB projections were also recorded at the June meeting. In particular, the question was raised whether in the baseline scenario the assumptions regarding the impact of war or sanctions were too lenient. The expectations of the central bank with regard to the further accumulation of savings in the single currency area were also questioned, and in the process the question was also raised as to what extent the loss of consumer purchasing power would lead to a "tapping" of savings. The next projections are due at the September meeting (see ECB calendar) and should again indicate lower growth and higher price dynamics. These adjustments could then also be additional drivers for significant monetary policy decisions, as we will explain further below.

ECB calendar: all a question of timing – future ECB Governing Council meetings 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. Updated ECB projections are due on 8 September. The current and expected upward pressure on prices into 2024 should to some extent increase pressure on the Governing Council to act. We expect interest rate hikes on all dates, although the type and size of the hikes will probably vary.

- 21 July
- 8 September (new ECB projections)
- 27 October
- 15 December (new ECB projections, first time for 2025)

How high will the interest rate hikes be?

The inflation data has long justified interest rate hikes. Opinions differ, however, on the number of hikes and, above all, the size. Since everything is under consideration, small steps (e.g. ten basis points) would also be conceivable. However, due to the ferocity of inflation rates, we see "normal" steps (+25bp) in July, October and December in our baseline scenario. As the demands of some central bankers also show, even isolated large steps (50 basis points in September) are very likely.

Which interest rate will move first?

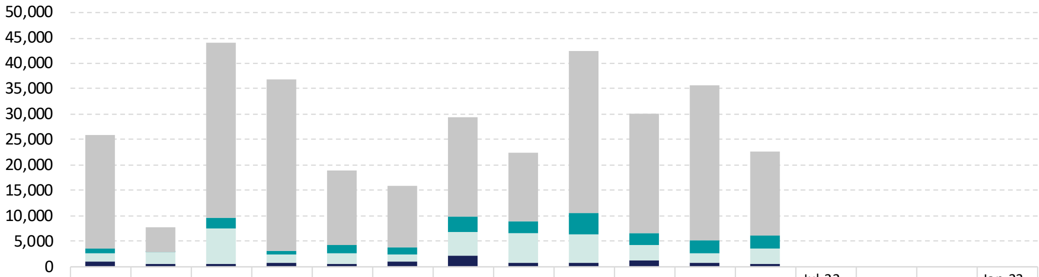
For a long time, the clear favourite for the first increase was the deposit facility rate. This has been at -0.50% since September 2019 and is (still) mainly responsible for negative interest rates on current and business accounts. The main purpose of the interest rate is, of course, the overnight deposit at the ECB and has a corresponding signalling function. The main refinancing rate and thus the key rate in the narrower sense (MRO; main refinancing operations rate) has already been at 0.00% since March 2016. It was preceded by a value of 0.05%. The marginal lending rate, i.e. borrowing money overnight from the central bank, has also been at its lowest level of 0.25% since March 2016. Exciting, albeit of a rather homeopathic nature: the previous rate was 0.30%, so that a step of 5bp was implemented previously. At the time, this was purely a signal of the ability to act; such homeopathic steps have (almost) no monetary policy relevance.

No symmetrical corridor in July: has the ECB committed too early?
The ECB had already left the symmetrical corridor of the three interest rates before. Incidentally, this symmetry (-0.25%; 0.00%; 0.25%) would be achieved again if only the deposit rate was raised on 21 July. In our view, the ECB has already committed too early to +25bp on all three rates at the same time, meaning that no symmetry would be established and the negative interest rate would last into September. After that, the symmetrical corridor might even expand again in 2023. This used to be at least 50-75 basis points upwards and downwards in its range.

End of net purchases under all purchase programmes reached
The last rites have been read and net purchases under the Asset Purchase Program (APP) officially ended on July 1. This was the mandatory minimum requirement for the ECB to be able to make the first interest rate step of what is likely to be a protracted journey. This is exactly how "sequencing" is defined: only after the end of the bond purchases can and should there be a rise in key interest rates. According to the most recent data set from the ECB, the APP amounted to EUR 3,265.2bn, of which a total of EUR 2,592.6bn was attributable to the PSPP. This equates to roughly 80% of the total volume. At EUR 345.0bn, the CSPP ranks second in the breakdown, albeit again closely followed by the CBPP3 at EUR 302.2bn. The purchase programme for ABS ended at EUR 25.4bn. As we are dealing with Eurosystem holdings and not pure net purchases in this case, we assume in our reporting that these figures will be updated at the beginning of August – and therefore also on a monthly basis in the future. We do not anticipate any exceptions or additional loopholes, but net purchases under the APP were already terminated once (end of December 2018) before being resurrected (November 2019). Here, as with the PEPP, the ECB regularly plays the "we leave all doors open" card.

How long will reinvestments under the APP continue?
As unclear as the data situation and reporting by the Eurosystem within the framework of PEPP (Pandemic Emergency Purchase Programme) reinvestments may seem, the cards are clearly on the table for the duration of the reinvestments. Although the programme stopped its net purchases at the end of March before exhausting its self-imposed "envelope" of EUR 1,850bn, maturities of partly (still) unknown amounts will be reinvested until the end of 2024. This means that we will still be dealing with the PEPP for around another 2.5 years and do not see any reduction in the balance sheet total. This is currently much more cryptic under the APP. "The Governing Council also intends to continue to reinvest, in full, the principal payments of the maturing securities acquired under the APP for an extended period of time after the date when key ECB interest rates start to rise and, in any event, for as long as necessary to maintain favourable liquidity conditions and a wide degree of monetary accommodation." At the moment, we think anything from six months to more than 24 months is conceivable and we hope to have some information at the press conference after next week's Council meeting. Not only in the current market phase is the potential of reinvestment within the framework of the APP to by no means be underestimated and, if handled flexibly, provides considerable degrees of freedom. In the months July to December 2022 alone, APP maturities will add up to EUR 149.1bn, with the PSPP unsurprisingly accounting for the lion's share (EUR 122.3bn). However, even the expiring bonds from the CSPP (EUR 7bn) and the CBPP3 (EUR 16bn) are not irrelevant in their impact; this is also because reinvestment activities are likely to be rather more concentrated on the period after the summer break.

APP: Expected monthly maturities (EUR m)



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-22 - Jun-23	2021	2022	Jan-23 - Jun-23
APP	26,009	7,770	44,014	36,948	18,860	15,812	29,328	22,493	42,533	30,101	35,785	22,763	332,416	247,069	298,614	183,003
PSPP	22,446	4,841	34,354	33,927	14,669	12,016	19,469	13,656	32,033	23,561	30,549	16,619	258,140	188,494	228,558	135,887
CSPP	978	196	2,155	674	1,557	1,416	2,940	2,182	4,219	2,380	2,566	2,504	23,767	17,134	17,337	16,791
CBPP3	1,629	2,227	6,873	1,651	2,167	1,487	4,786	5,977	5,631	2,937	1,874	3,108	40,347	30,143	41,244	24,313
ABSPP	956	506	632	696	467	893	2,133	678	650	1,223	796	532	10,162	11,298	11,475	6,012

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

What topics could still shape ECB Governing Council discussions?

In our ECB preview, we have placed a strong emphasis on the upcoming interest rate hikes as well as the APP reinvestments and taken up the debate on a possible crisis tool. However, other "construction sites" could also shape the key interest rate meeting for their part. For example, concerns about exchange rate trends are piling up among some market participants. A weak euro may in principle be seen as a stimulus to the economy, but it also fuels inflation. Even if a direct influence on, for example, the EUR/USD exchange rate is not to be expected as a result of the meeting, the Council should or even must certainly give more thought to the way in which its own decisions and statements may impact the exchange rate. We also see a conflict situation characterised by interdependencies on the side of TLTRO III. According to at least some market reports, the ECB would like to put a stop to the opportunity for carry income for the banking sector resulting from the tender conditions. On the other hand, an excessively drastic intervention could also trigger undesirable market reactions. Moreover, "balance sheet contractions" at Italian banks could boost expansion of BTPs.

Conclusion and comments

Expectations of interest rate hikes on the financial markets have intensified once again in recent weeks. Four key rate hikes by the end of the year are currently the generally accepted baseline scenario. The ECB's prior determination of the path to be followed not least paints a clear picture here. The ECB has not raised interest rates for eleven years – welcome to the "new normal". After the clear communication in June and the not particularly meaningful special session shortly afterwards, action must now be taken in connection with the three main key interest rates, among other areas. The design of the anti-fragmentation tool will also be eyed critically. In addition, there are discussions on the exchange rate (keyword: parity) and, of course, possible carry income for banks from unintentionally advantageous conflicting conditions. The press conference could be probing for President Lagarde, but it is still too early for a "roast". Later in the year, the negative interest rate would have to be shelved (September). There is still a long way to go before we reach a "new normal" in 2023 or 2024 (target: 2.5% for MRO), so let's focus on the currently pending discussions and decisions for now.

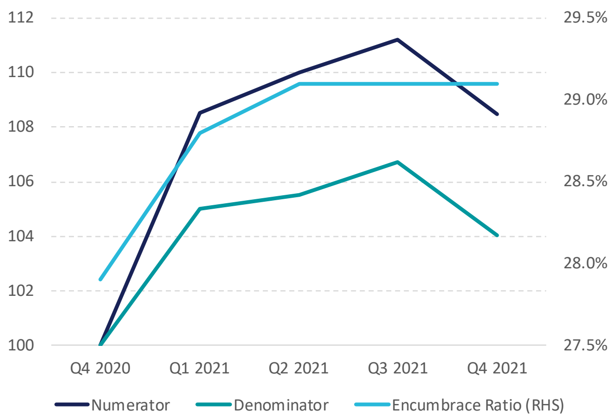
Covered Bonds
EBA Report on Asset Encumbrance: levels increasing

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze // Stefan Rahaus

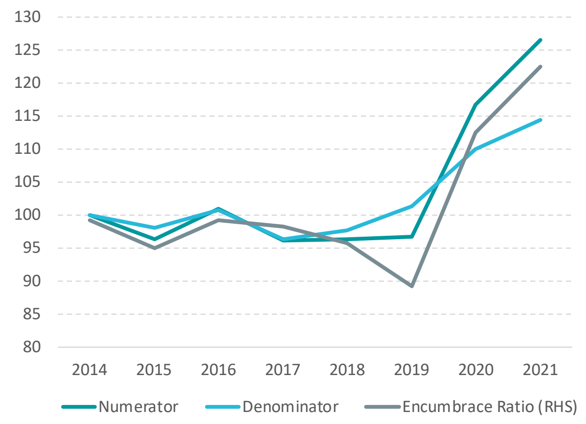
154 banks = 80% of the EU/EEA banking sector for EBA Report

In its EBA Report on Asset Encumbrance published at the end of June, the European Banking Authority (EBA) reviewed the evolution of asset encumbrance and the composition of funding sources across 154 EU banks (as at the end of 2021). The latest report relates to the period from December 2020 to December 2021 and is based on quarterly data reported by the EU/EEA banks. The banks cover more than 80% of the EU/EEA banking sector by total assets. EU aggregates do not include figures for UK banks but include subsidiaries of UK banks in EU countries. As encumbrance subordinates unsecured creditors, they might demand higher spreads in stress situations, in turn causing banks to prioritise secured funding and increasing encumbrance ratios. Secured creditors may also demand higher overcollateralisation levels, which could lead to an adverse feedback loop of higher encumbrance, higher funding costs and diminishing liquidity. For this reason, it is key that supervisory authorities identify trends so they can take steps to prevent risk. In our opinion, the EBA Report is also relevant for the covered bond segment as covered bonds tend to "hog" bank assets. Furthermore, looking at the funding side for institutions, the central bank funding trend is relevant for covered bond funding.

Asset encumbrance ratio of total assets (QoQ)



Asset encumbrance ratio of total assets (YoY)



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

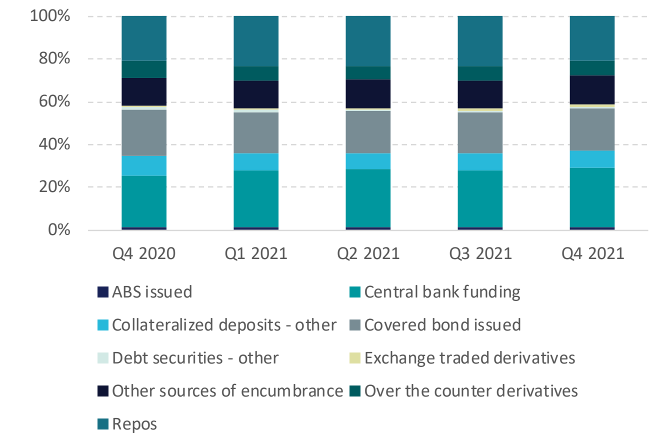
Asset encumbrance up 1.2 percentage points in 2021

In 2021, the asset encumbrance ratio continued the upward trend initiated in 2020. Versus the comparative month of December 2020 (27.9%), the encumbrance ratio rose by 1.2 percentage points to 29.1%. While encumbered assets and collateral received (i.e., the numerator of the ratio) rose by 8.5%, the growth of total assets and collateral received (i.e., the denominator) was 4%.

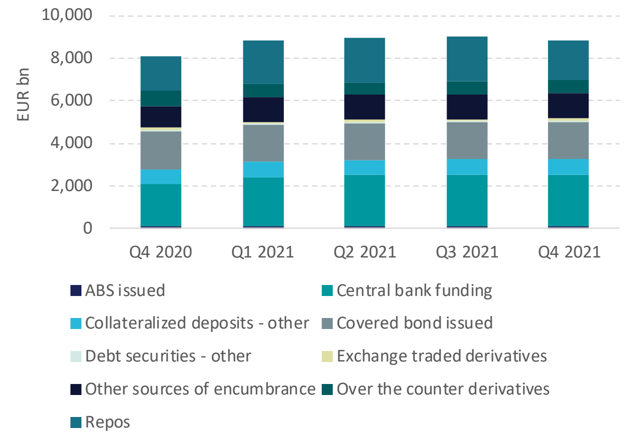
High asset encumbrance in Denmark and Finland

Based on the EBA data, central bank funding as the main source of asset encumbrance increased in importance. Although encumbrance declined on the markets in 2021, the majority of funding is provided via central banks. The weight of covered bonds over total sources of encumbrance continued to decline, following the trend observed since 2020 (covered bonds were responsible for 19.7% of total encumbrance, i.e., 2.3 percentage points). Progress was made in the build-up of MREL buffers. The encumbrance ratios varied greatly between the individual countries and were comparatively high in some large jurisdictions. Only five countries showed an encumbrance ratio above the EU average. These were Germany (36.3%), Italy (30.7%), France (30.3%), Denmark (52.6%) and Finland (29.4%). Banks from Bulgaria, Romania and Poland exhibited ratios below 5%. The situation is different in Italy, where central bank funding was the main source of encumbrance. In Germany and France, the sources of encumbrance were more diverse, albeit with a preponderance of repo funding. On the other hand, several non-eurozone countries showed very low encumbrance ratios. Loans and receivables other than loans on demand accounted for more than half of total encumbered assets and collateral. Debt securities were the second asset class most commonly used to obtain secured funding. These two asset classes accounted for almost 90% of encumbered assets and collateral. The highest encumbrance ratios by asset class were observed in equity instruments and debt securities.

Distribution of sources of encumbrance (in %)



Distribution of sources of encumbrance (EUR bn)



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

EBA provides covered bond assessment

The EBA puts the declining trend in covered bonds down to favourable conditions in central bank funding via the targeted longer-term refinancing operations (TLTRO III), triggering a substitution effect. With regard to the source of asset encumbrance, the EBA stated that the declining trend observed in the share of covered bonds might be reverted. The authority puts this down to challenging market conditions observed since the outbreak of the war in Ukraine and the successive end of TLTRO III facilities. The EBA contextualises this by pointing to the dynamic covered bond issuance activity in the first six months of 2022.

Issuance and cover pool limits for covered bonds

Although covered bonds do not account for the majority share of asset encumbrance, some legislators saw and continue to see a requirement for limiting the placement of covered bonds and the assets "pledged" for issued covered bonds. In Australia, for example, cover pool assets are capped at "8% of domestic assets", while Singapore limits this to 10% of total assets, having increased this asset encumbrance limit from 4% a little more than a year ago. This suggests further bonds will follow from this jurisdiction.

Conclusion

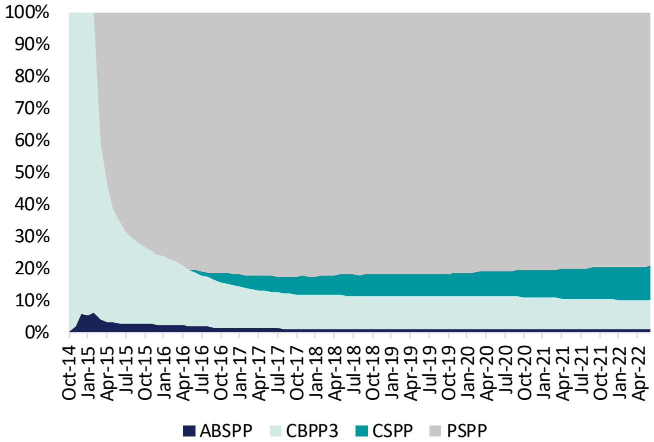
While the encumbrance ratios based on the recently presented EBA data very strongly depend on the business models of banks, the significant rise should be monitored, according to the EBA. Stress situations could markedly increase funding costs and lead to greater haircuts on securities or margin calls. This could lead to a negative spiral of higher encumbrance, higher funding costs and diminishing liquidity. A normalisation in monetary policy and inflationary pressures as well as the war in Ukraine have considerably pushed up market uncertainty and have resulted in increasing yields and spread widening. Ultimately, this means over the course of the current year, banks might resort more extensively to secured funding such as covered bonds. Looking ahead, the EBA projects that covered bonds could again become more important in relation to asset encumbrance, especially as a consequence of the TLTRO III tender coming to an end.

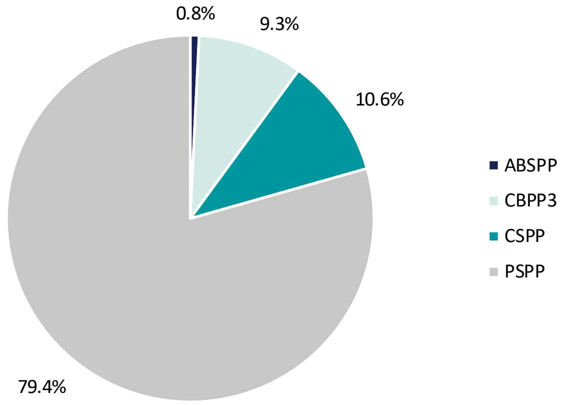
ECB tracker

Asset Purchase Programme (APP)

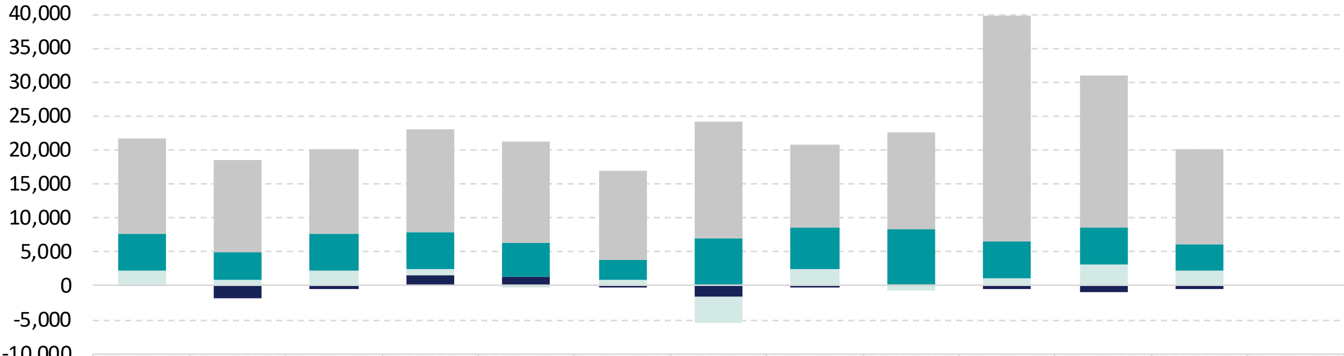
	ABSPP	CBPP3	CSPP	PSPP	APP
May-22	25,779	300,171	341,432	2,581,291	3,248,673
Jun-22	25,365	302,210	344,952	2,592,645	3,265,172
Δ	-371	+2,339	+3,858	+13,924	+19,750

Portfolio structure





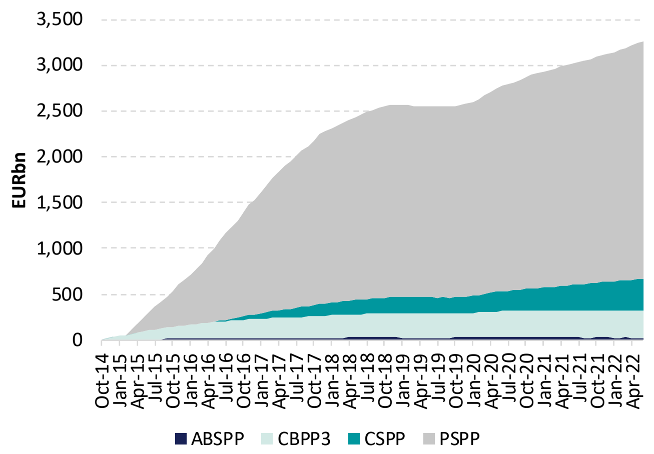
Monthly net purchases (in EURm)



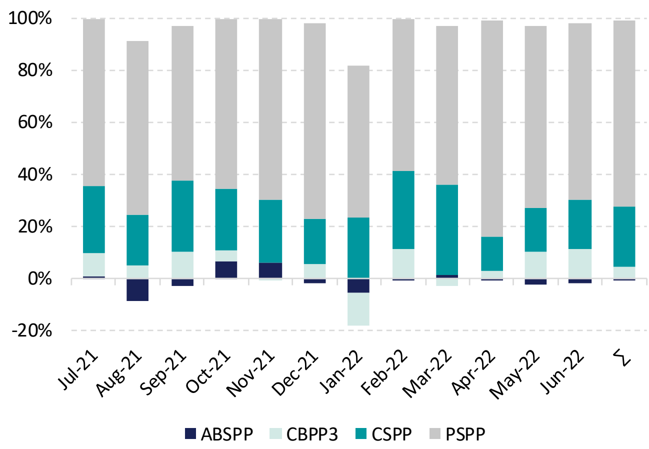
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	∑
APP	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,929	39,397	30,232	19,750	269,662
PSPP	13,943	13,563	12,423	15,038	14,815	12,989	17,292	12,095	14,172	33,238	22,443	13,924	195,935
CSPP	5,502	3,936	5,590	5,481	5,142	3,007	6,970	6,272	8,042	5,461	5,366	3,858	64,627
CBPP3	2,011	999	2,184	1,008	-12	942	-3,761	2,376	-606	1,074	3,247	2,339	11,801
ABSPP	141	-1,749	-538	1,490	1,255	-342	-1,663	-45	321	-376	-824	-371	-2,701

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

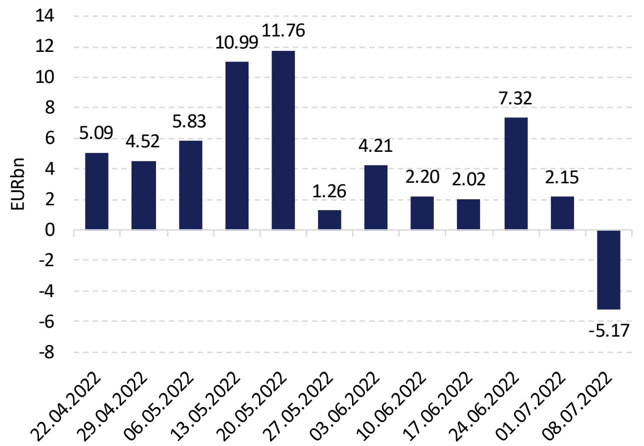
Portfolio development



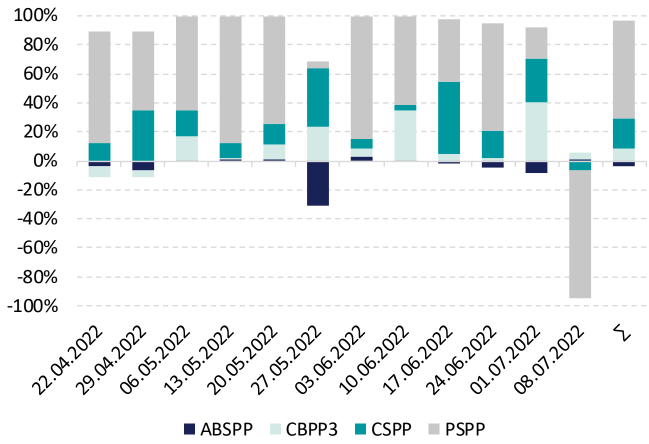
Distribution of monthly purchases



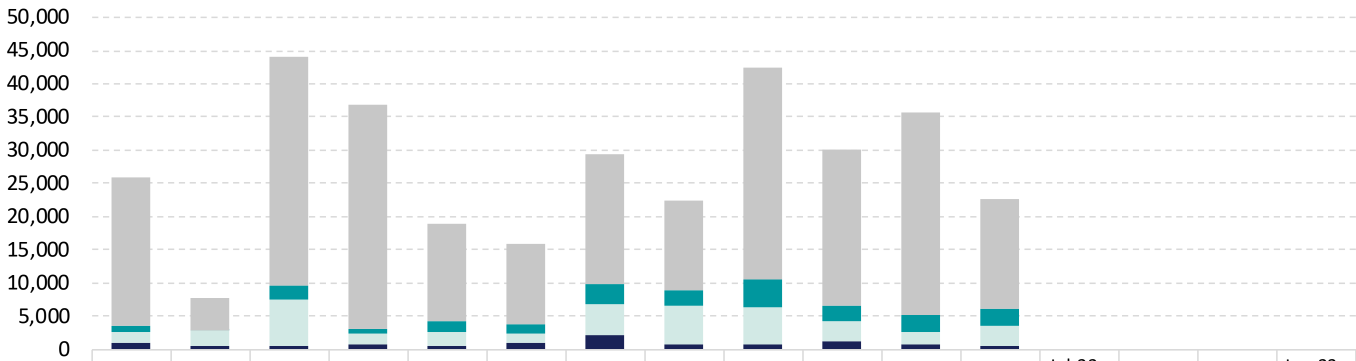
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-22 - Jun-23	2021	2022	Jan-23 - Jun-23
APP	26,009	7,770	44,014	36,948	18,860	15,812	29,328	22,493	42,533	30,101	35,785	22,763	332,416	247,069	298,614	183,003
PSPP	22,446	4,841	34,354	33,927	14,669	12,016	19,469	13,656	32,033	23,561	30,549	16,619	258,140	188,494	228,558	135,887
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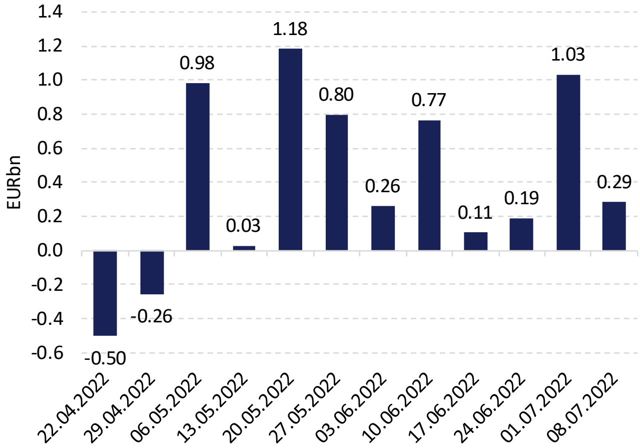
ABSPP	956	506	632	696	467	893	2,133	678	650	1,223	796	532	10,162	11,298	11,475	6,012

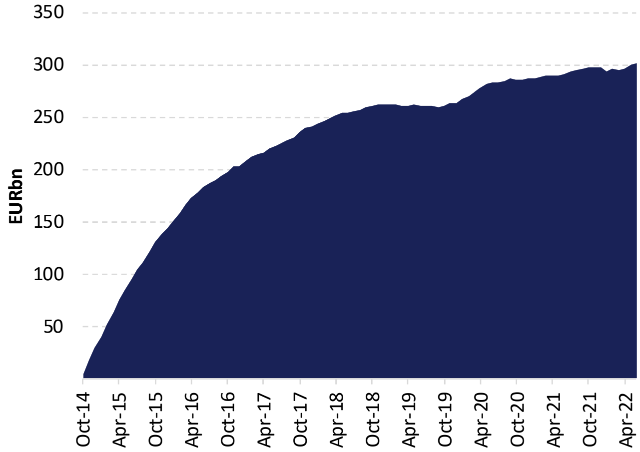
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

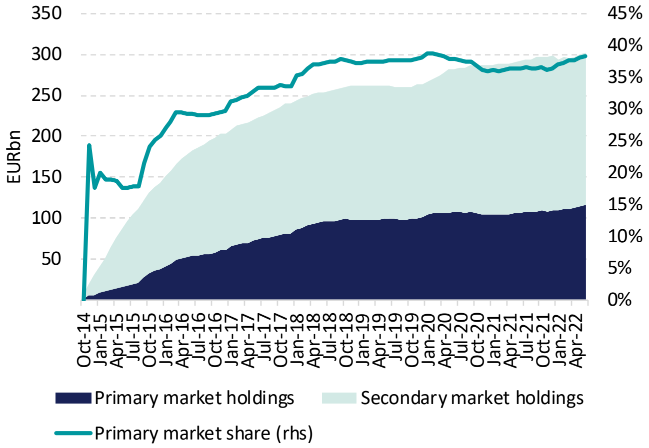
Weekly purchases



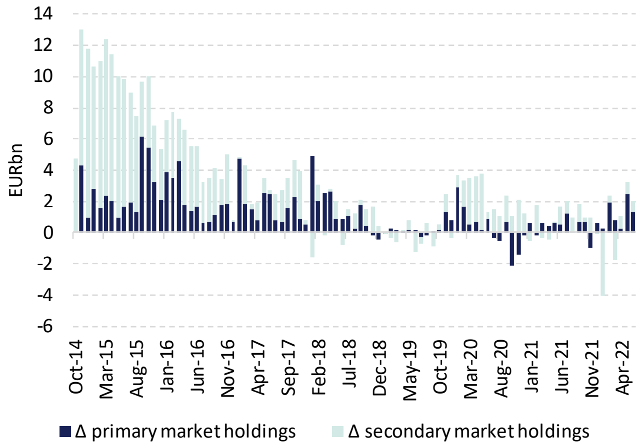
Development of CBPP3 volume



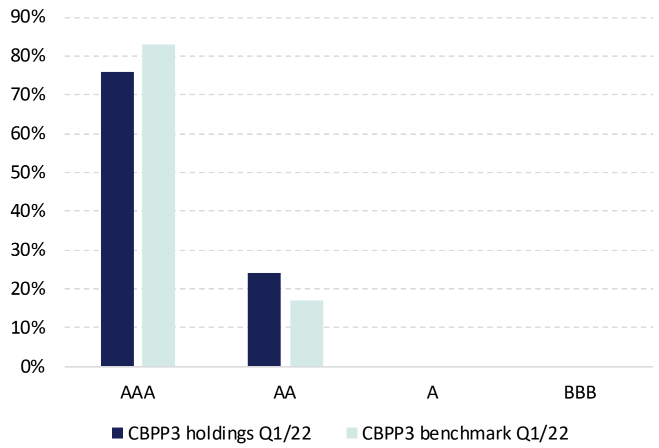
Primary and secondary market holdings



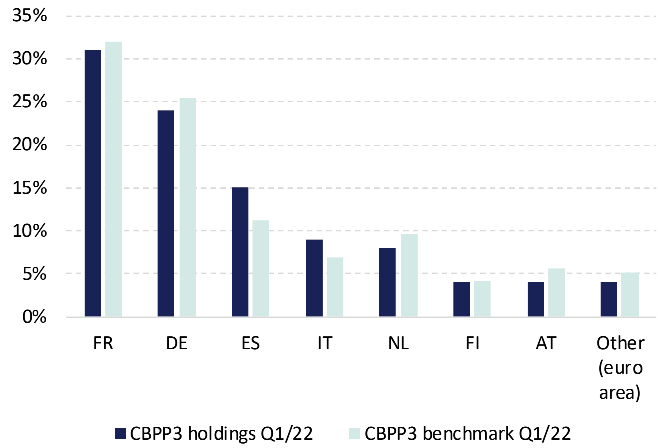
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



Distribution of CBPP3 by country of risk

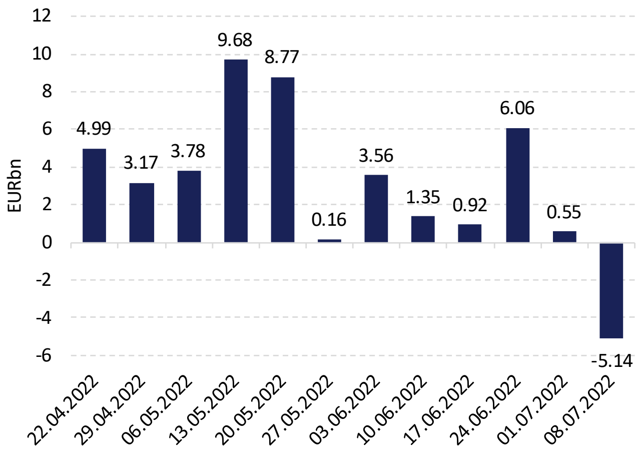


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

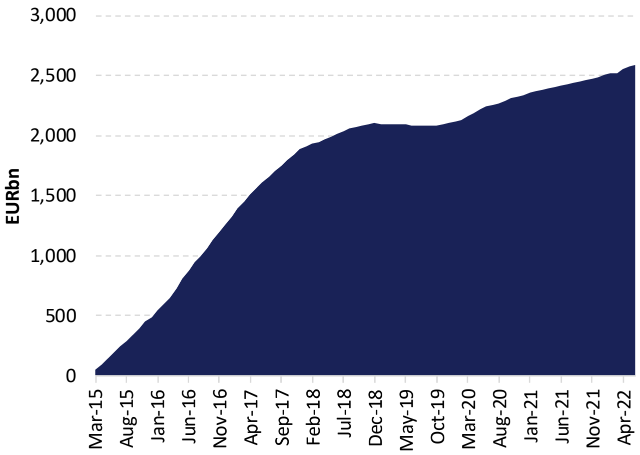
NORD/LB

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



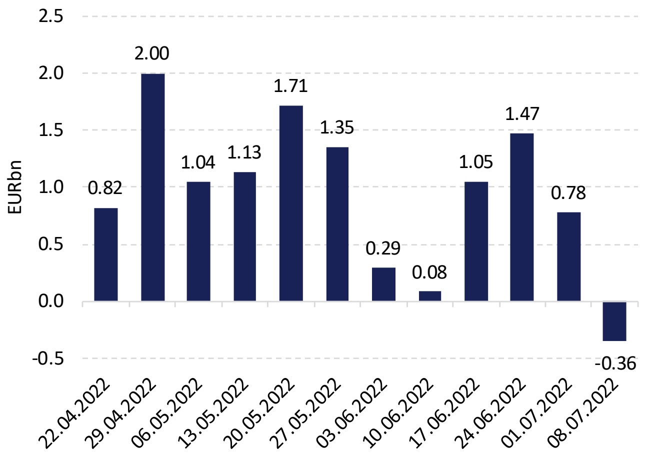
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Holdings (EURm)	Expected holdings (EURm)[2]	Difference (EURm)	Current WAM of portfolio[3] (in years)	WAM of eligible universe[4] (in years)	Difference (in years)
AT	2.7%	77,504	74,123	3,381	7.3	8.1	-0.8
BE	3.4%	94,970	92,265	2,705	7.5	9.9	-2.4
CY	0.2%	4,240	5,449	-1,209	8.5	8.9	-0.5
DE	24.3%	666,639	667,600	-961	6.7	8.0	-1.3
EE	0.3%	444	7,134	-6,690	8.1	8.1	0.0
ES	11.0%	315,066	301,988	13,078	8.0	8.2	-0.2
FI	1.7%	43,617	46,518	-2,901	7.9	8.9	-1.0
FR	18.8%	531,309	517,242	14,067	6.9	8.4	-1.5
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	42,418	42,885	-467	8.4	10.1	-1.7
IT	15.7%	447,979	430,231	17,748	7.2	7.8	-0.7
LT	0.5%	5,881	14,657	-8,776	10.6	10.4	0.1
LU	0.3%	3,777	8,342	-4,565	5.8	6.1	-0.3
LV	0.4%	3,772	9,868	-6,096	9.5	9.4	0.1
MT	0.1%	1,414	2,656	-1,242	11.1	9.8	1.3
NL	5.4%	132,716	148,414	-15,698	7.7	9.3	-1.6
PT	2.2%	54,982	59,273	-4,291	7.5	7.9	-0.4
SI	0.4%	10,775	12,194	-1,419	9.7	9.9	-0.2
SK	1.1%	18,171	29,003	-10,832	8.1	8.8	-0.7
SNAT	10.0%	288,595	274,427	14,168	8.2	9.4	-1.2
Total / Avg.	**100.0%**	**2,744,270**	**2,744,270**	**0**	**7.3**	**8.4**	**-1.1**

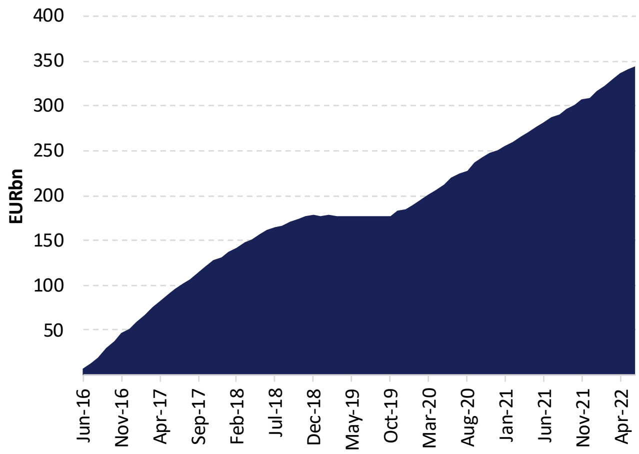
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of PSPP portfolio holdings
[4] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP
Source: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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

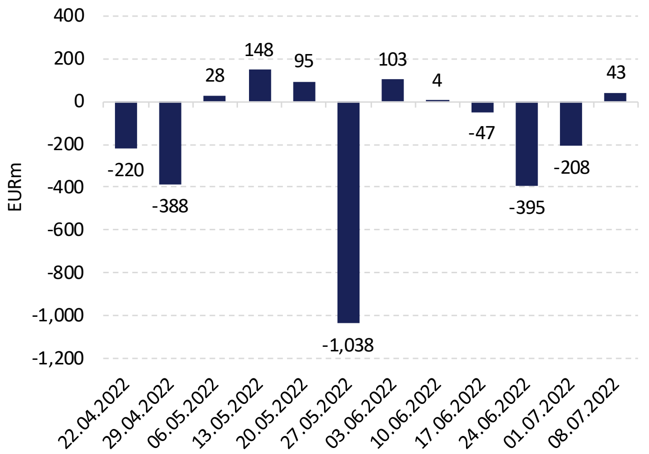


Development of CSPP volume

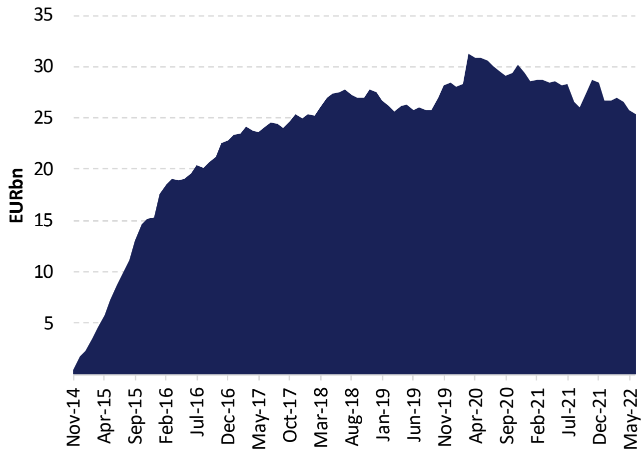


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



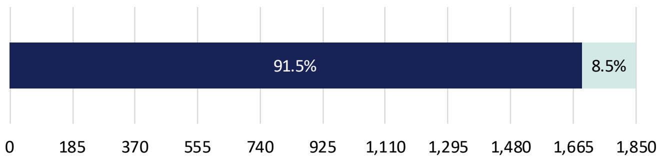
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

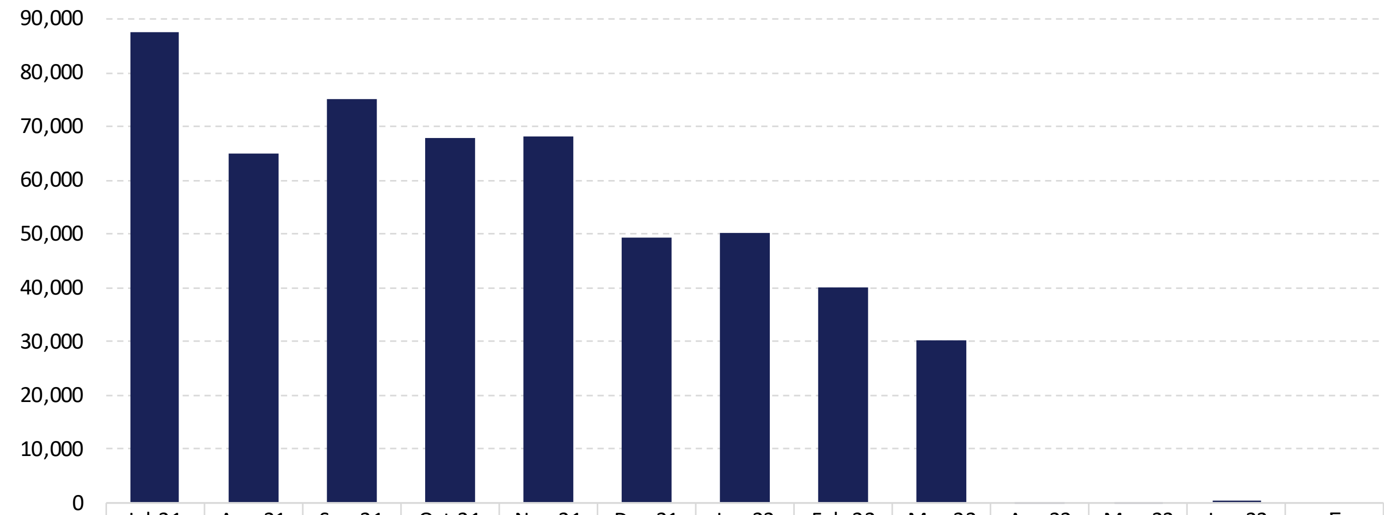
Holdings (in EURm)

	PEPP
May-22	1,718,061
Jun-22	1,718,074
Δ (net purchases)	+12

Invested share of PEPP envelope (in EURbn)

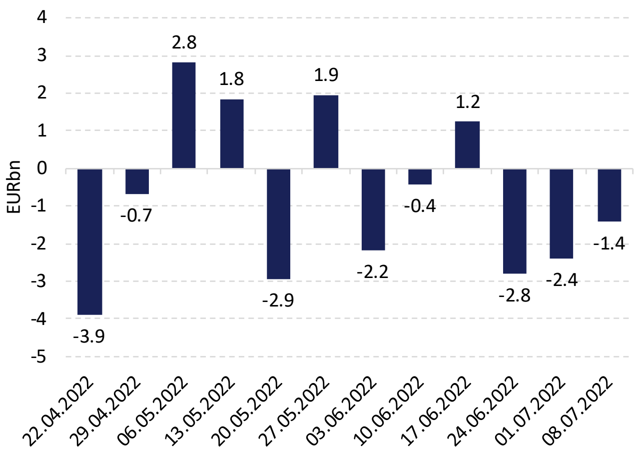


Monthly net purchases (in EURm)

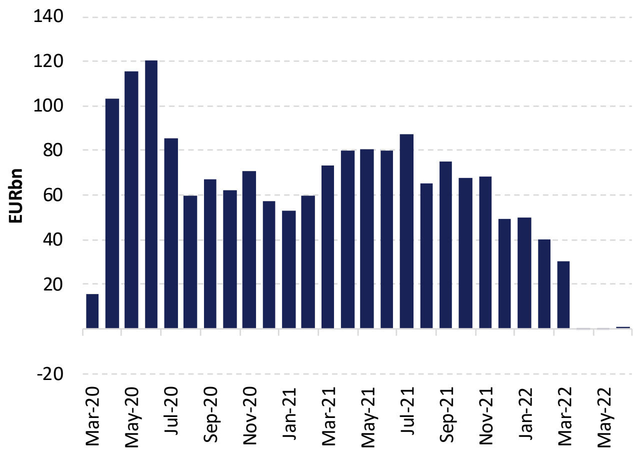


	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	∑
PEPP	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	-4	-10	12	533,442

Weekly purchases



Development of PEPP volume

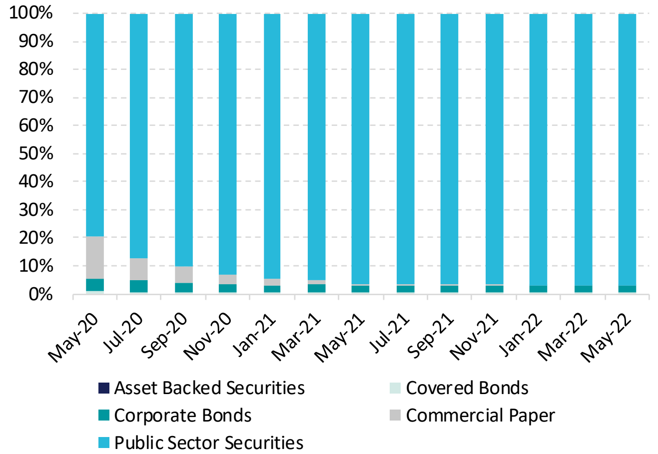


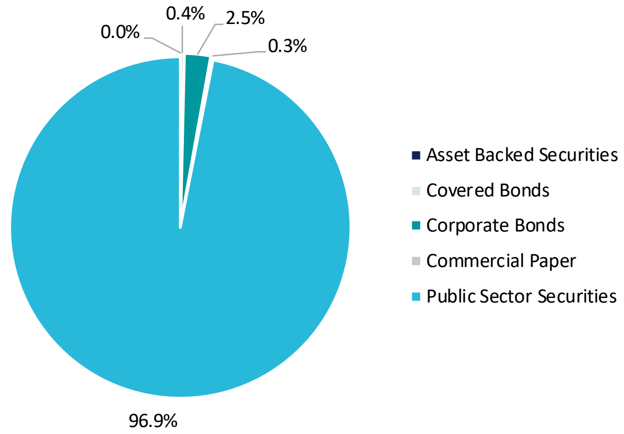
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

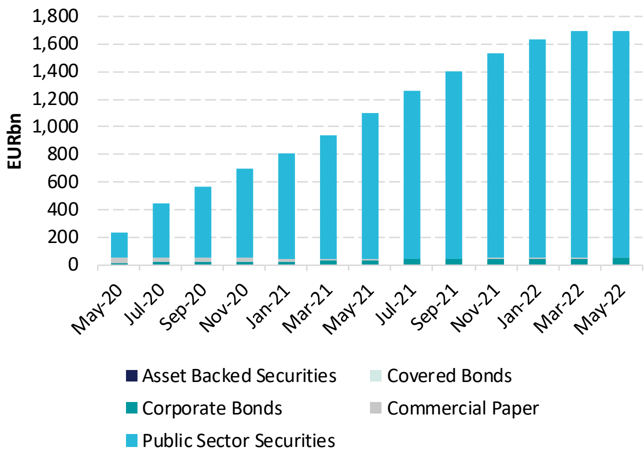
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Mar-22	0	6,067	40,313	5,862	1,644,247	1,696,489
May-22	0	6,067	41,825	4,352	1,644,230	1,696,474
Δ (net purchases)	0	0	+1,512	-1,510	-17	-14

Portfolio structure

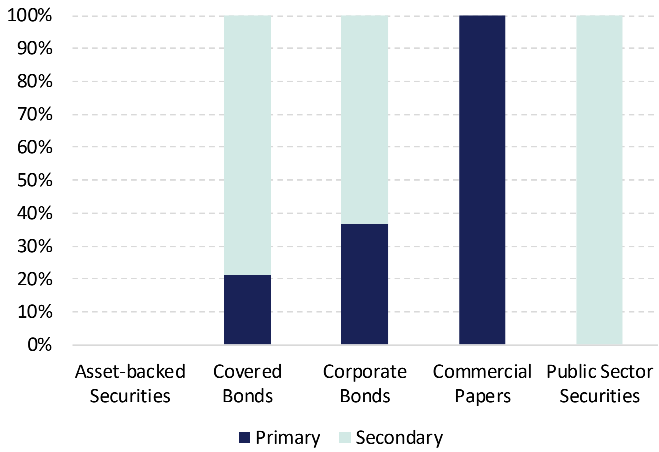




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

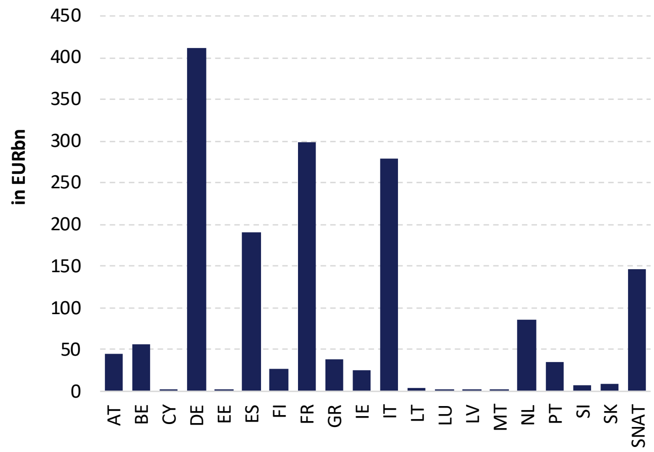
May-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Holdings in EURm	0	0	1,298	4,769	15,332	26,493	4,353	0
Share	0.0%	0.0%	21.4%	78.6%	36.7%	63.3%	100.0%	0.0%

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

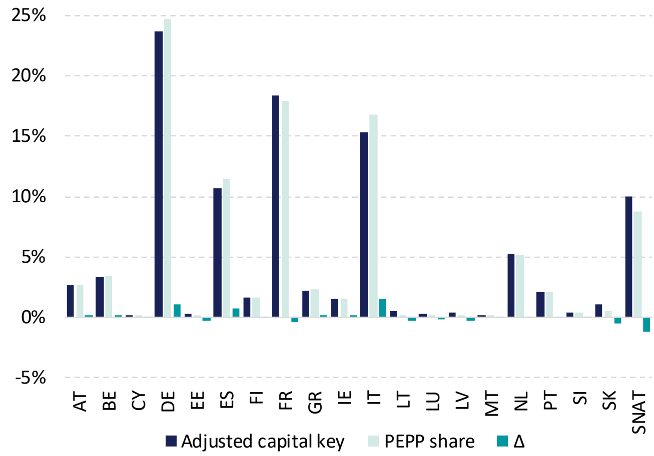
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	Current WAM[3] (in years)	WAM of eligible universe[4] (in years)	Difference (in years)
AT	44,280	2.6%	2.7%	0.0%	7.8	7.3	0.5
BE	57,052	3.3%	3.4%	0.1%	6.5	8.9	-2.4
CY	2,464	0.2%	0.1%	0.0%	9.0	8.3	0.7
DE	412,492	23.7%	24.8%	1.0%	6.4	6.8	-0.4
EE	256	0.3%	0.0%	-0.2%	8.0	6.5	1.6
ES	190,463	10.7%	11.4%	0.7%	7.6	7.5	0.1
FI	26,918	1.7%	1.6%	0.0%	7.2	7.8	-0.6
FR	298,979	18.4%	17.9%	-0.4%	8.1	7.8	0.2
GR	38,677	2.2%	2.3%	0.1%	8.6	9.7	-1.0
IE	25,832	1.5%	1.6%	0.0%	9.0	9.2	-0.2
IT	279,302	15.3%	16.8%	1.5%	7.2	7.0	0.2
LT	3,216	0.5%	0.2%	-0.3%	10.1	9.6	0.5
LU	1,853	0.3%	0.1%	-0.2%	6.3	7.2	-0.9
LV	1,890	0.4%	0.1%	-0.2%	8.6	8.5	0.1
MT	609	0.1%	0.0%	-0.1%	10.9	9.1	1.8
NL	86,124	5.3%	5.2%	-0.1%	7.7	8.6	-0.9
PT	34,802	2.1%	2.1%	0.0%	6.8	7.1	-0.3
SI	6,532	0.4%	0.4%	0.0%	9.2	9.2	0.0
SK	7,966	1.0%	0.5%	-0.6%	8.8	8.3	0.5
SNAT	145,953	10.0%	8.8%	-1.2%	10.4	8.5	1.9
Total / Avg.	**1,665,660**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**7.6**	**0.0**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



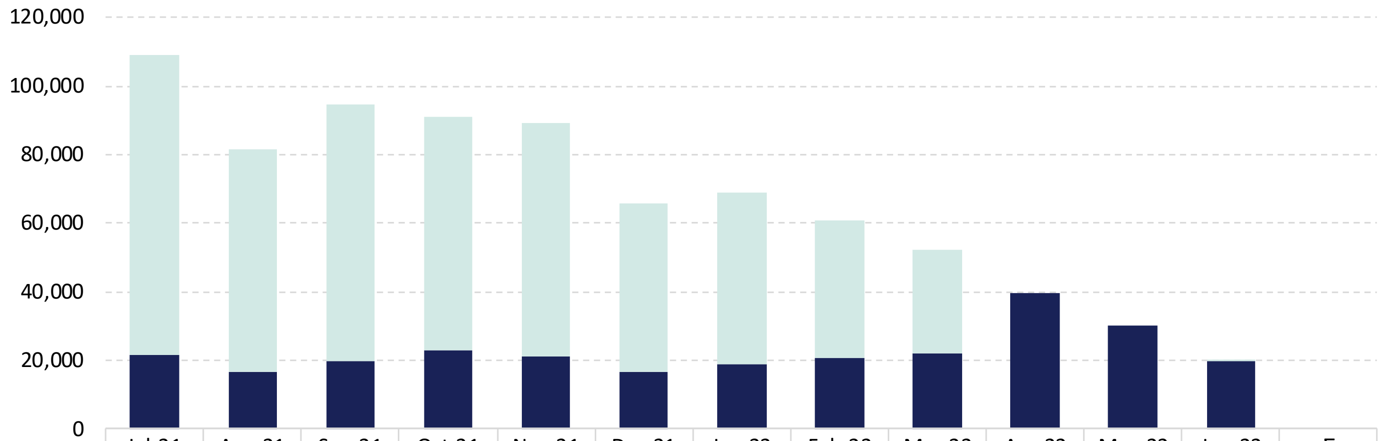
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Current WAM of public sector securities holdings under the PEPP [4] WAM of eligible universe of public sector securities holdings under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

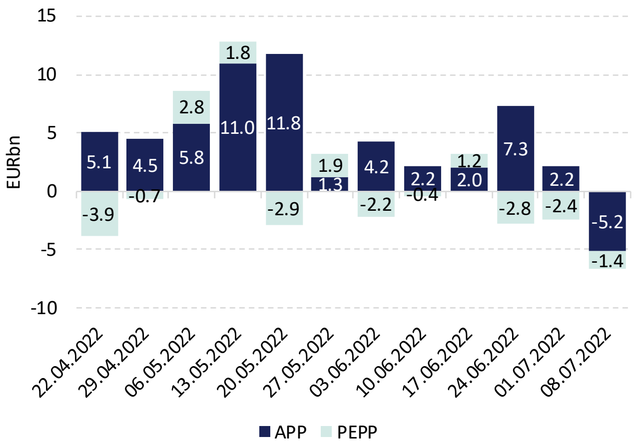
	APP	PEPP	APP & PEPP
May-22	3,248,673	1,718,061	4,966,734
Jun-22	3,265,172	1,718,074	4,983,246
Δ	+19,750	+12	+19,762

Monthly net purchases (in EURm)

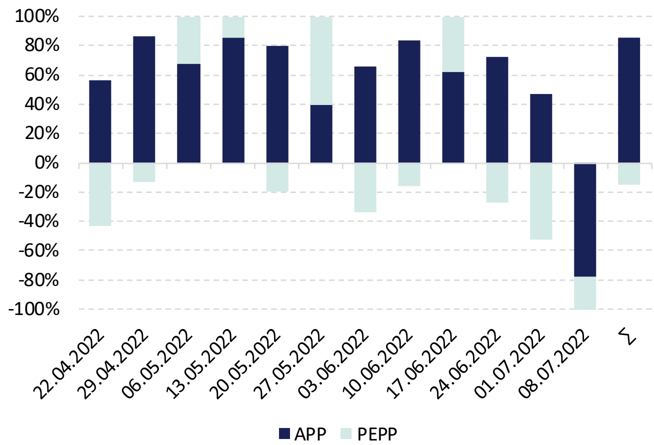


	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	∑
∑	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	52,143	39,393	30,222	19,762	803,104
PEPP	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	-4	-10	12	533,442
APP	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,929	39,397	30,232	19,750	269,662

Weekly purchases



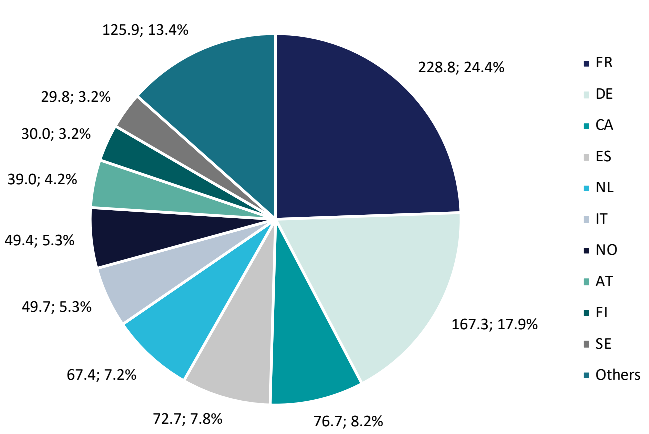
Distribution of weekly purchases



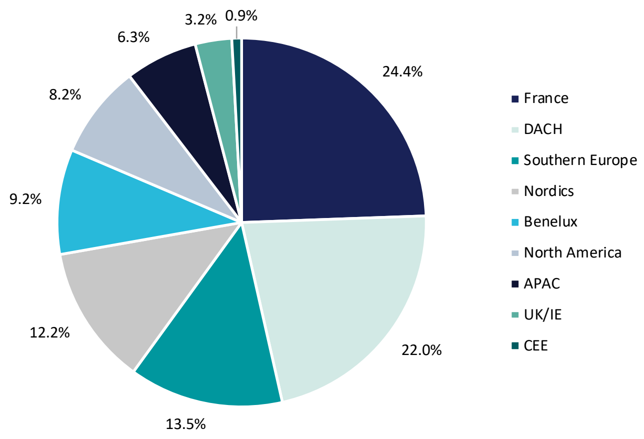
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



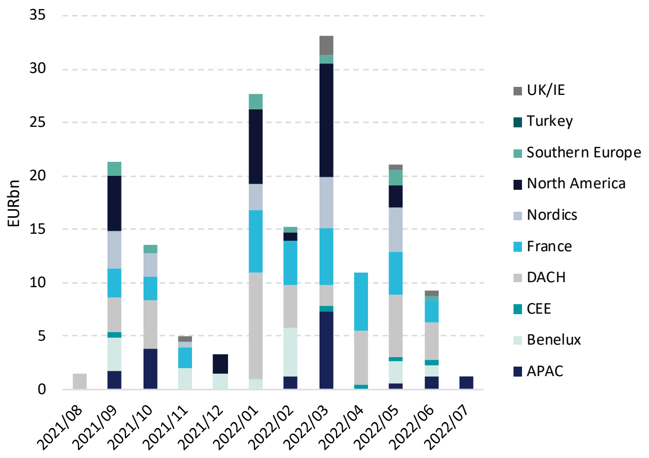
EUR benchmark volume by region (in EURbn)



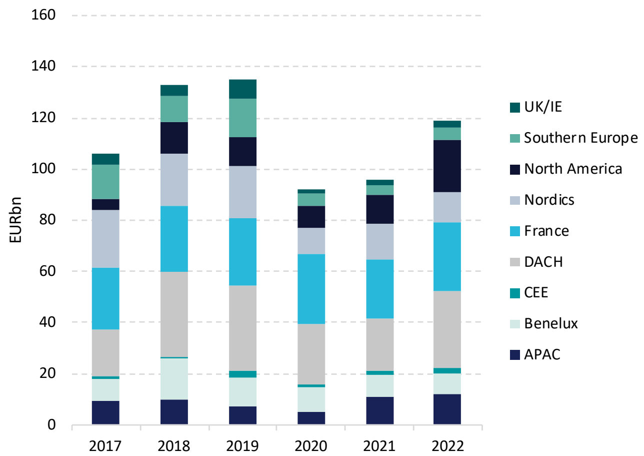
Top-10 jurisdictions

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	228.8	220	14	0.94	10.0	5.5	0.83
2	DE	167.3	242	20	0.63	8.4	4.6	0.46
3	CA	76.7	60	0	1.24	5.9	3.2	0.28
4	ES	72.7	59	5	1.12	11.7	3.6	1.73
5	NL	67.4	69	1	0.91	11.5	7.5	0.79
6	IT	49.7	60	2	0.80	9.2	4.1	1.27
7	NO	49.4	58	9	0.85	7.5	4.0	0.40
8	AT	39.0	71	3	0.55	9.3	5.9	0.65
9	FI	30.0	32	2	0.94	7.7	3.7	0.40
10	SE	29.8	35	0	0.85	7.5	3.7	0.51

EUR benchmark issue volume by month

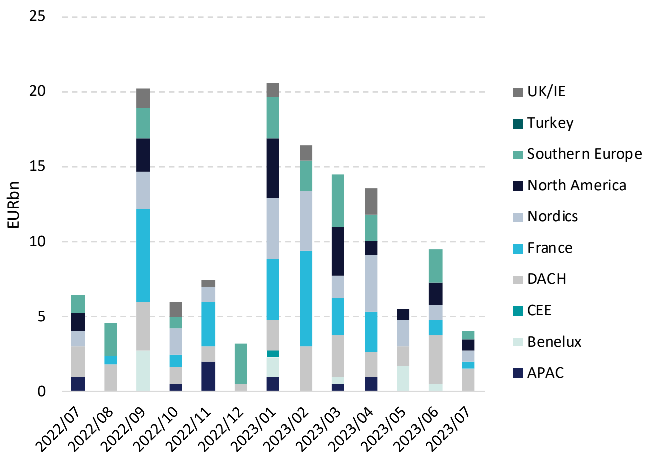


EUR benchmark issue volume by year

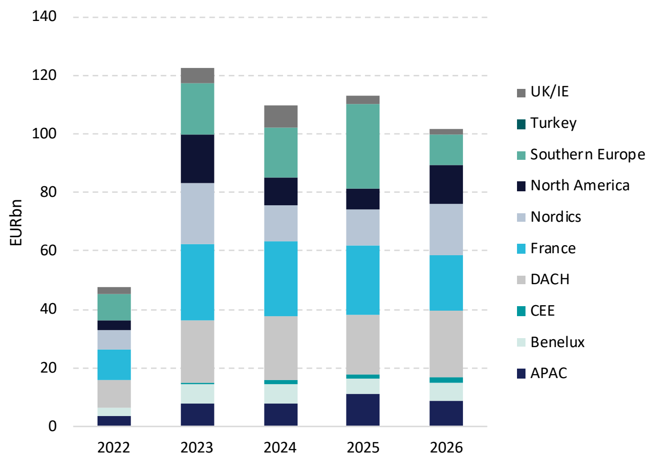


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

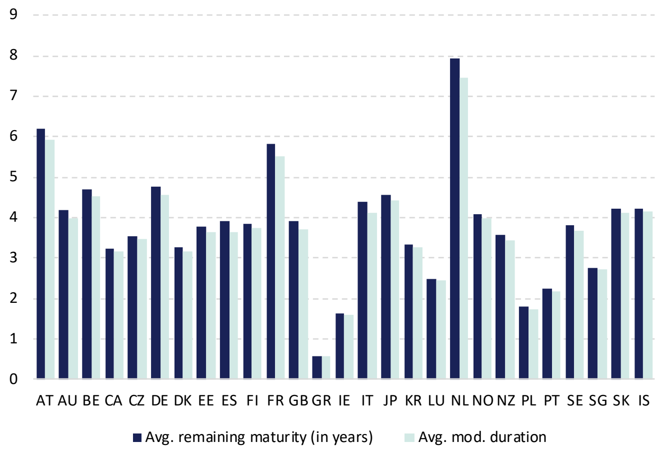
EUR benchmark maturities by month



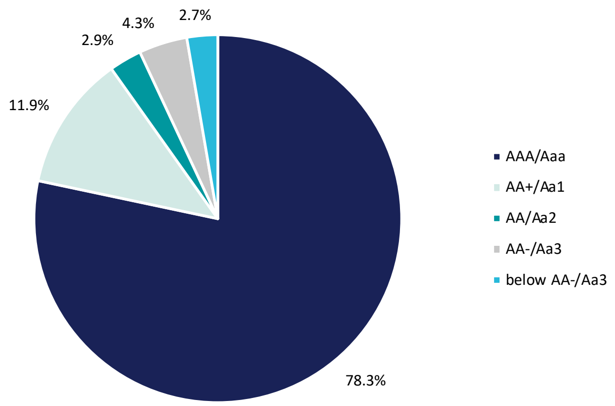
EUR benchmark maturities by year



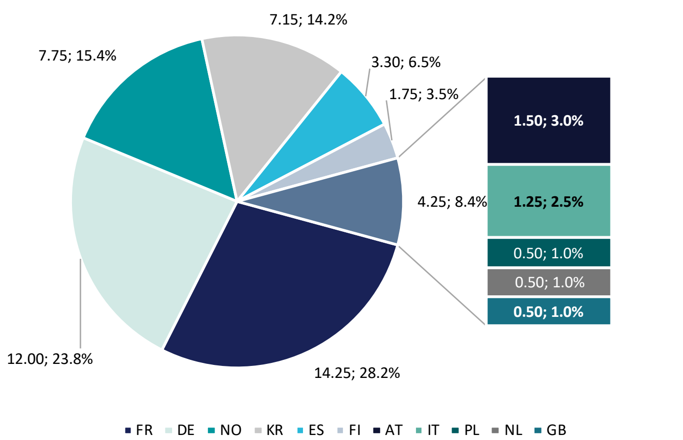
Modified duration and time to maturity by country



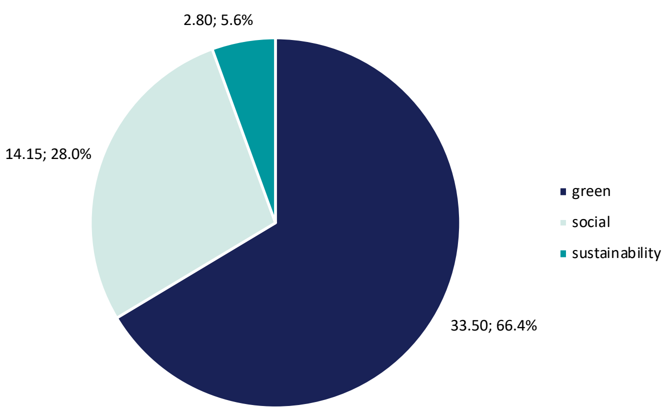
Rating distribution (volume weighted)



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



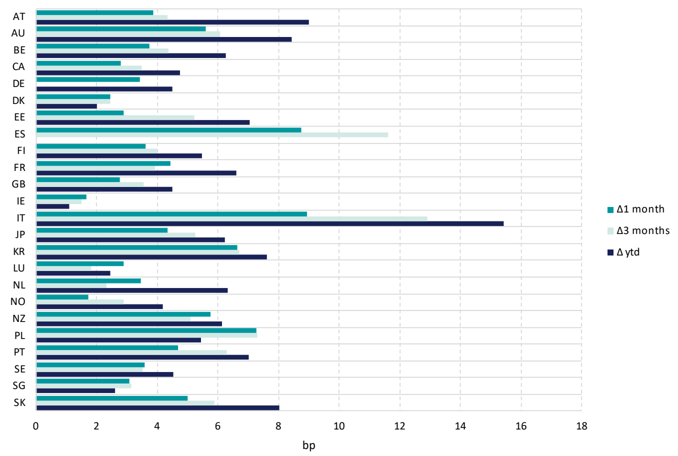
EUR benchmark volume (ESG) by type (in EURbn)



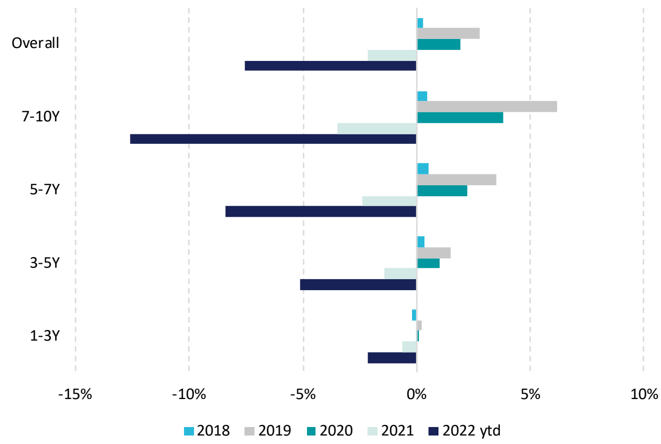
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

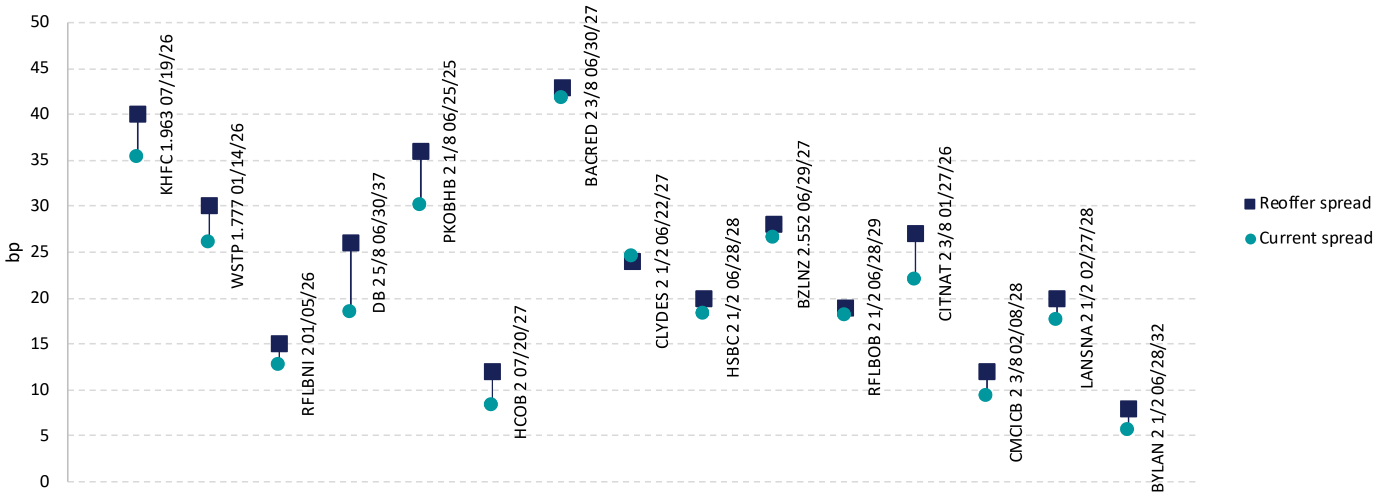
Spread development by country



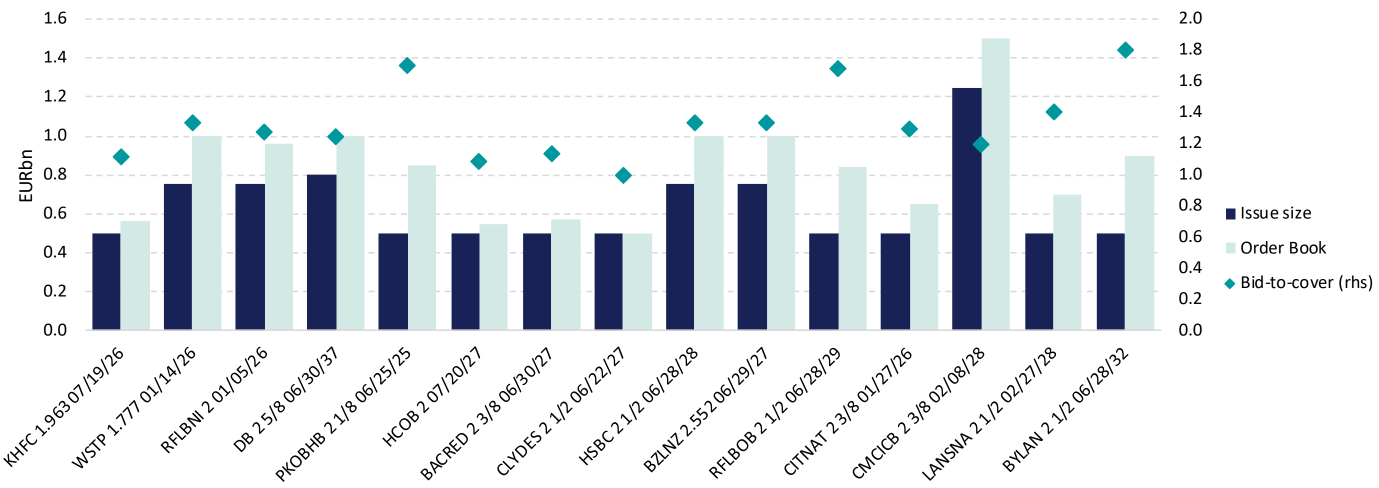
Covered bond performance (Total return)



Spread development (last 15 issues)



Order books (last 15 issues)

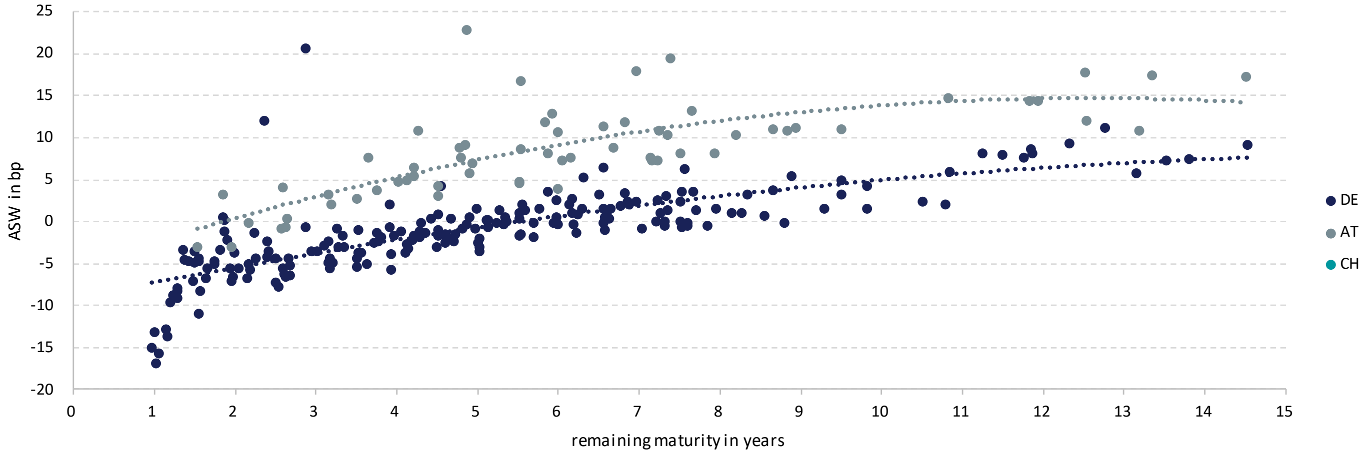


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

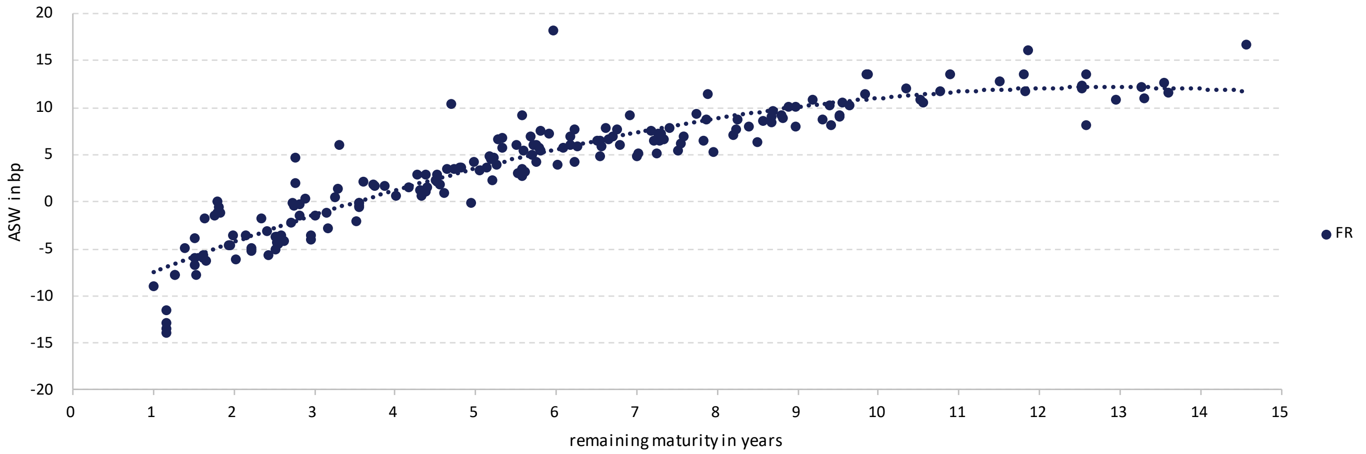
NORD/LB

Spread overview[1]

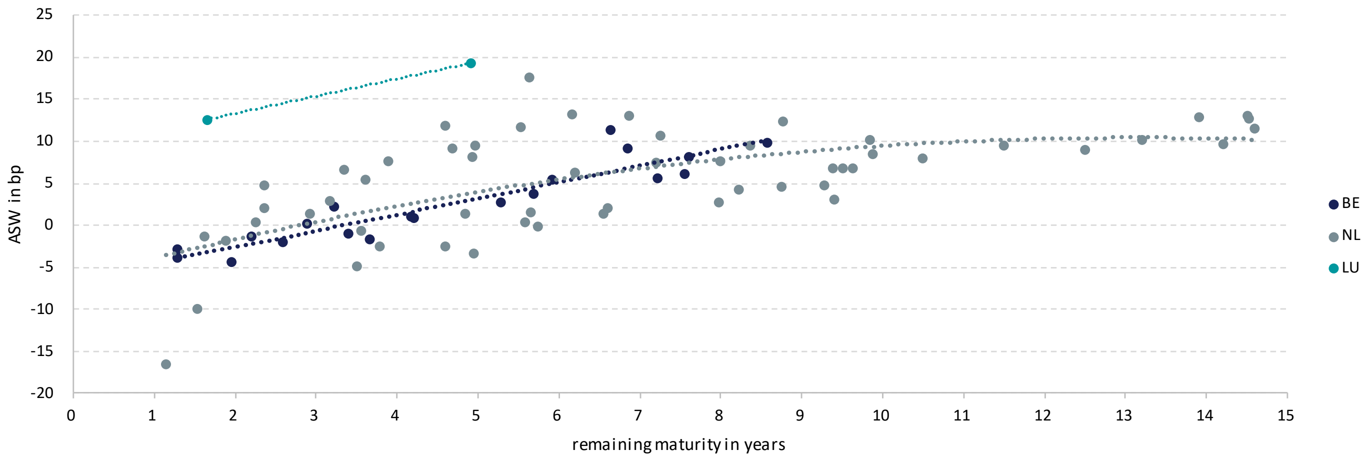
DACH



France



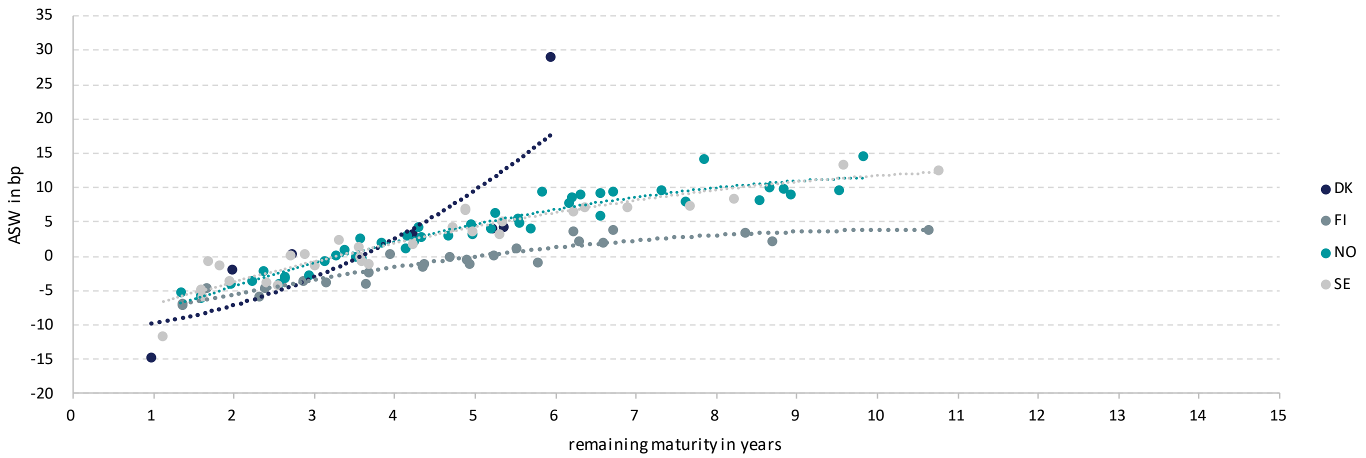
Benelux



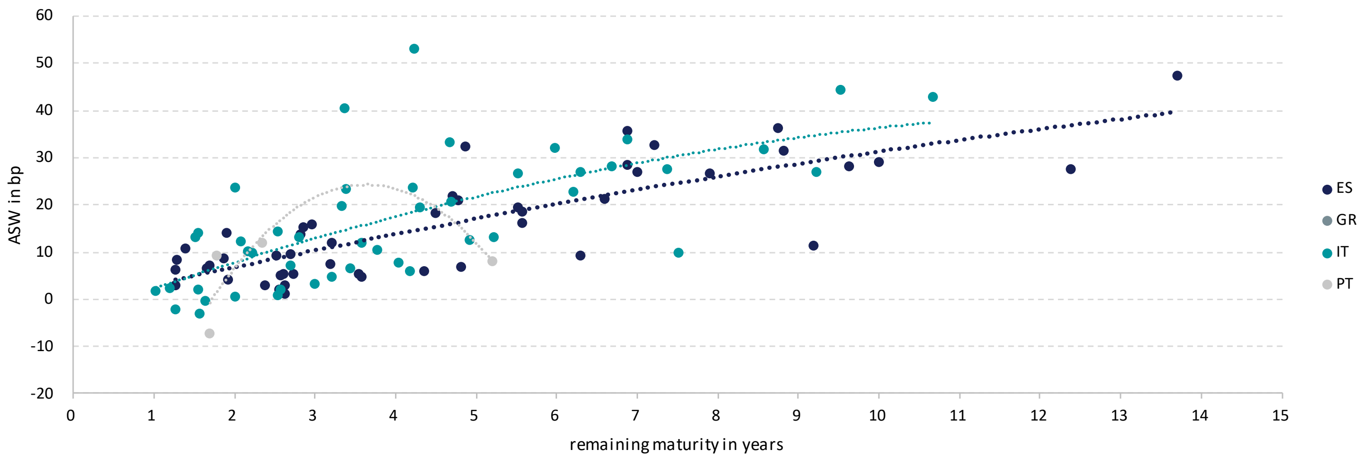
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

NORD/LB

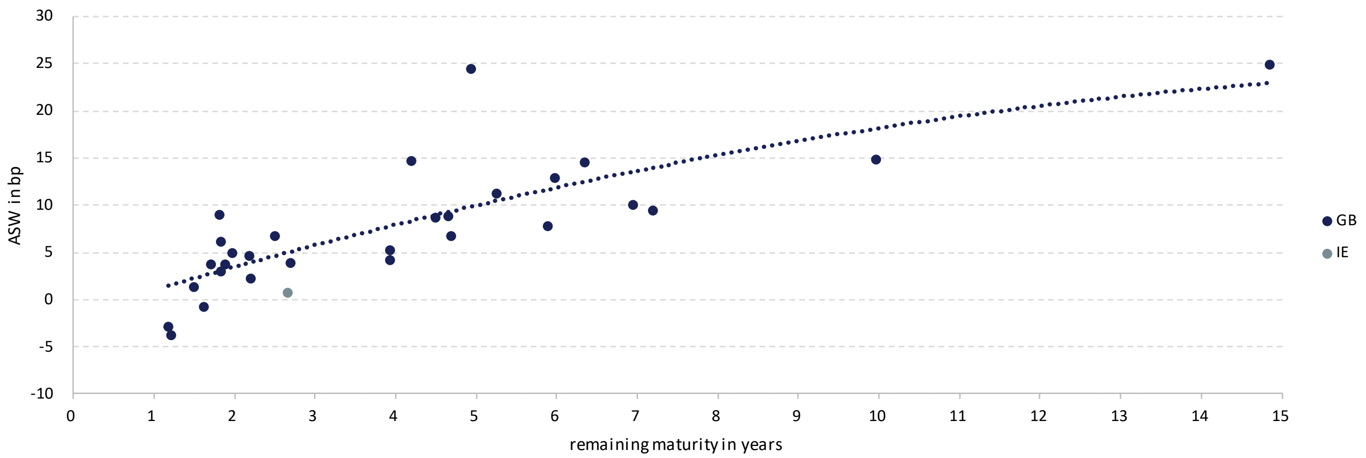
Nordics



Southern Europe

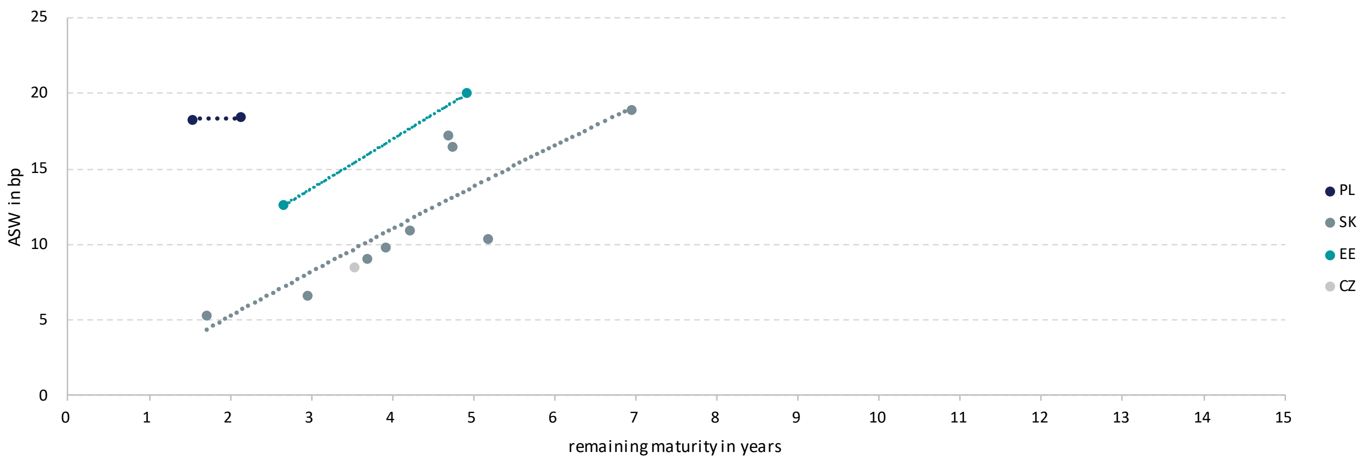


UK/IE

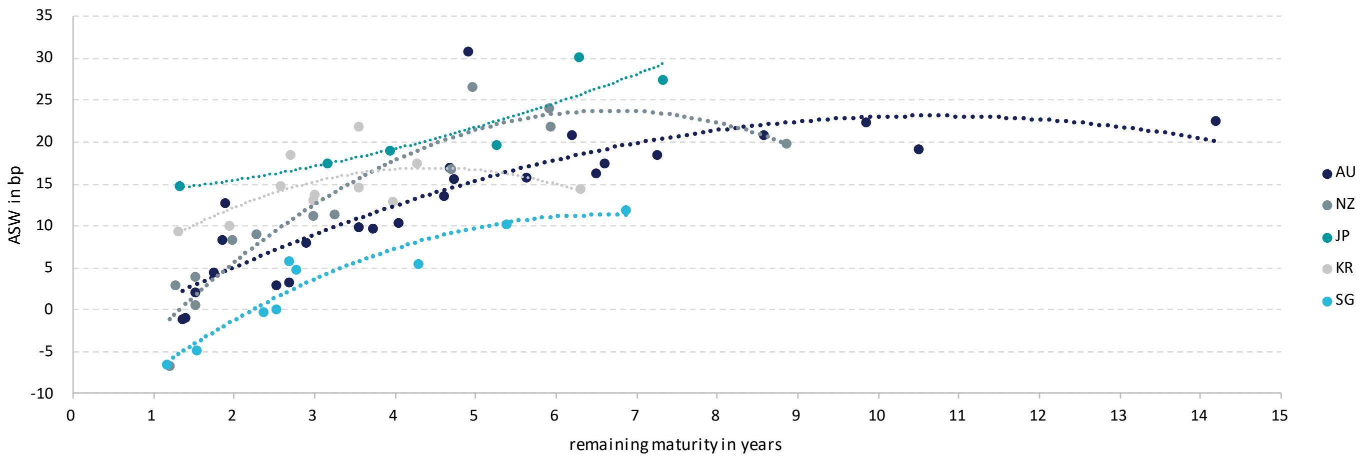


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

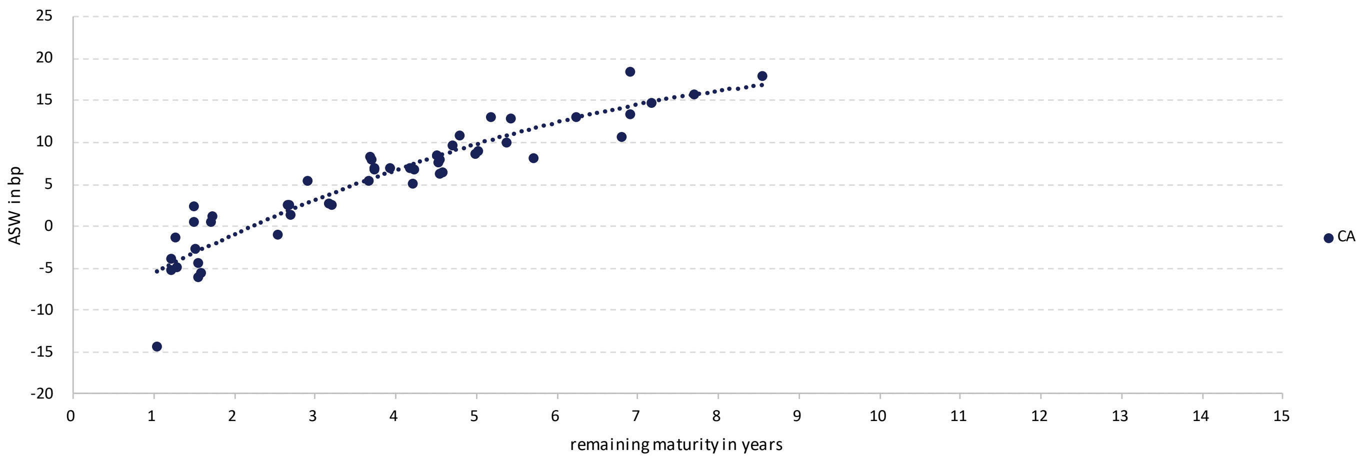
CEE



APAC



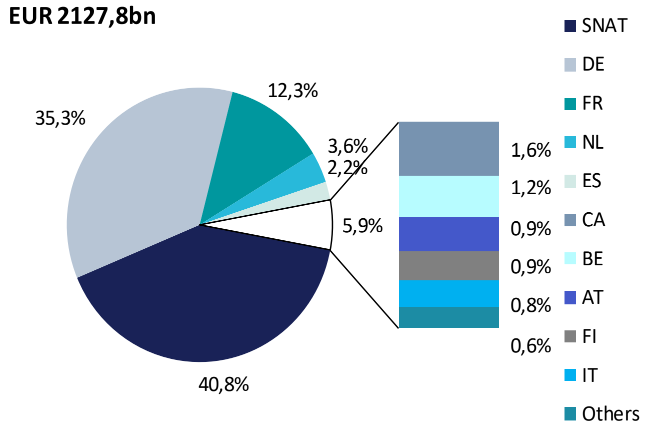
North America



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

Charts & Figures
SSA/Public Issuers

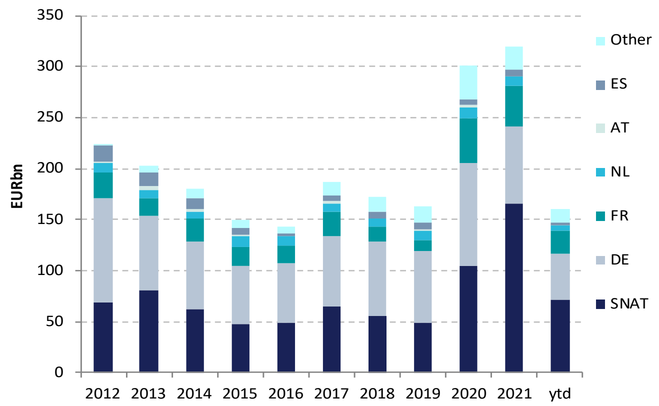
Outstanding volume (bmk)



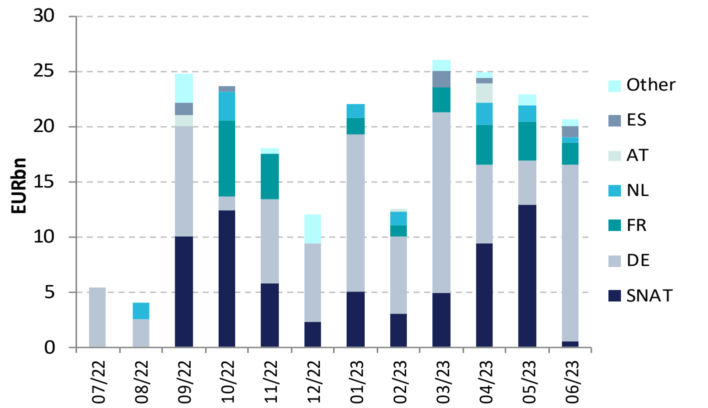
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	867,5	211	4,1	8,4
DE	751,1	570	1,3	6,6
FR	261,8	178	1,5	6,5
NL	77,1	69	1,1	6,6
ES	45,8	59	0,8	5,0
CA	33,2	22	1,5	4,9
BE	24,5	28	0,9	12,6
AT	20,2	23	0,9	4,7
FI	18,1	22	0,8	5,6
IT	16,0	19	0,8	5,3

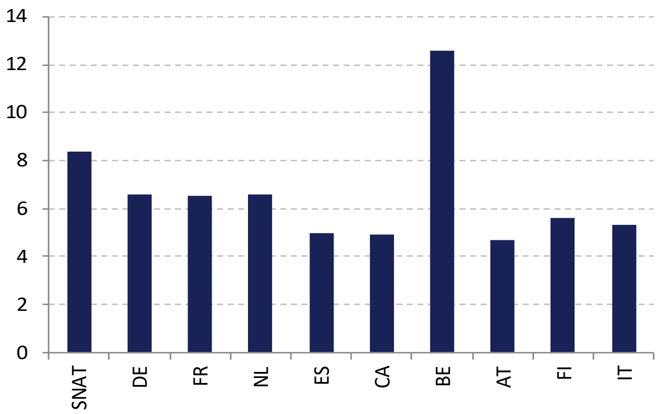
Issue volume by year (bmk)



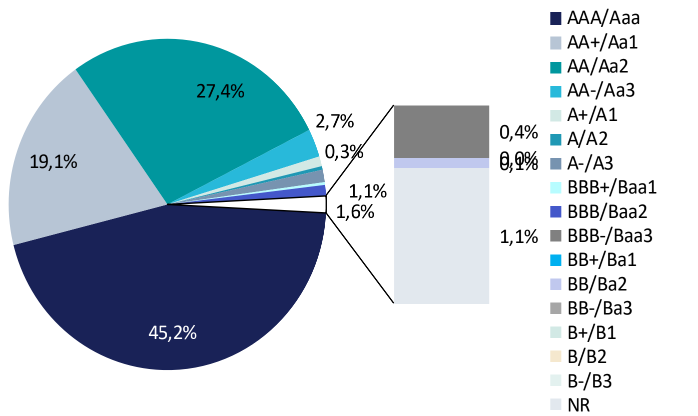
Maturities next 12 months (bmk)



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

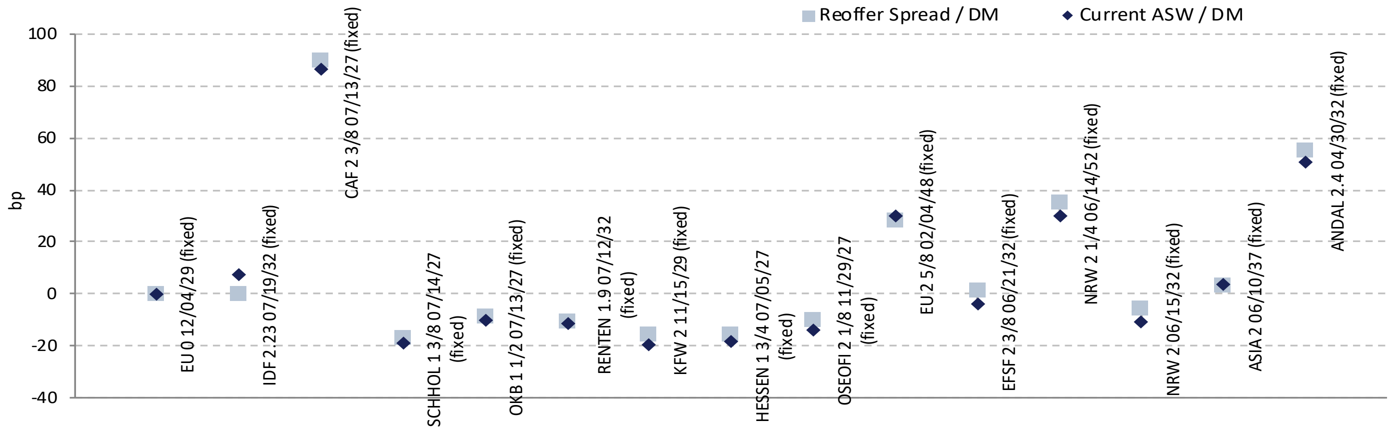


Rating distribution (vol. weighted)

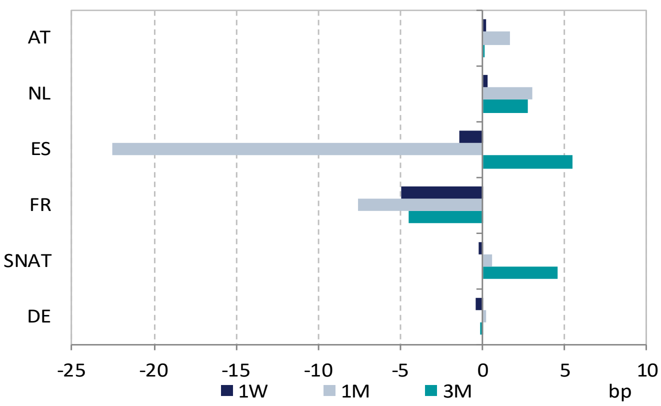


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

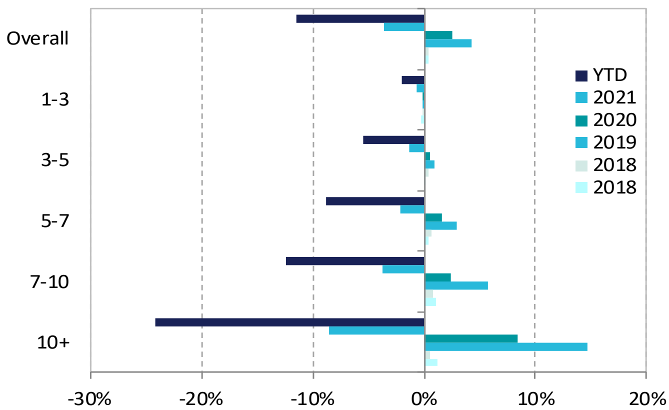
Spread development (last 15 issues)



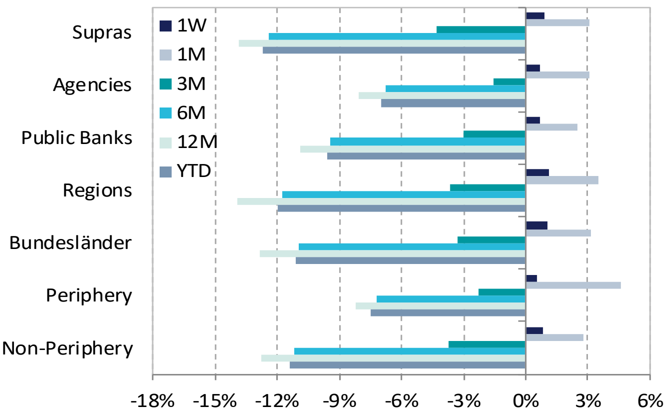
Spread development by country



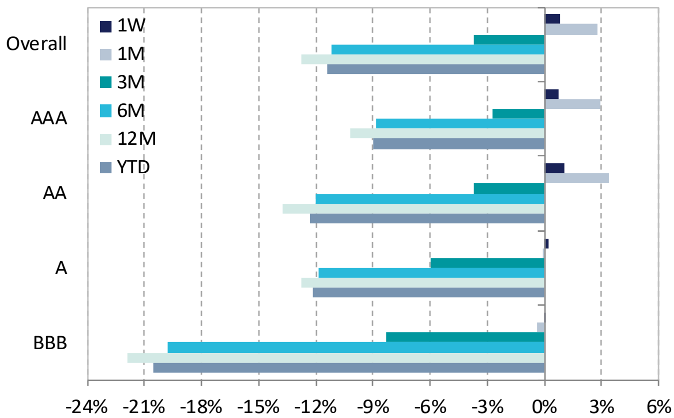
Performance (total return)



Performance (total return) by segments

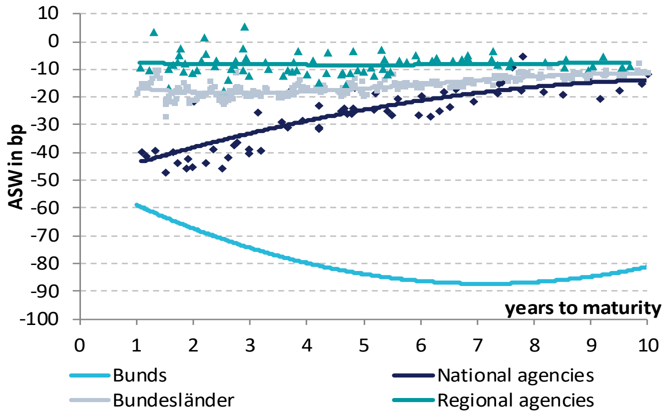


Performance (total return) by rating

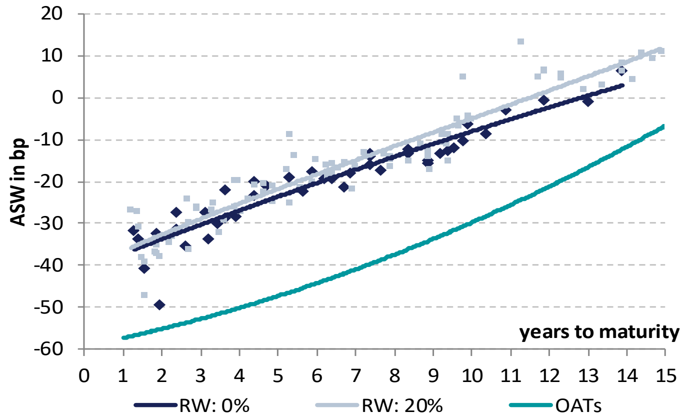


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

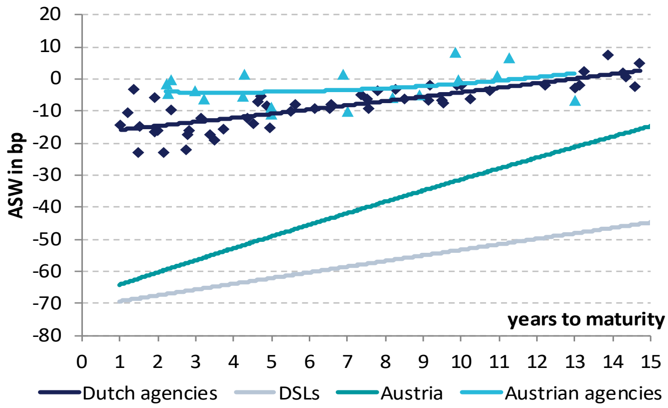
Germany (by segments)



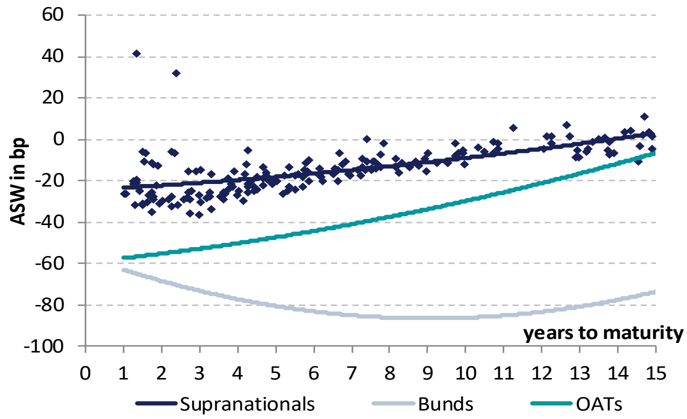
France (by risk weight)



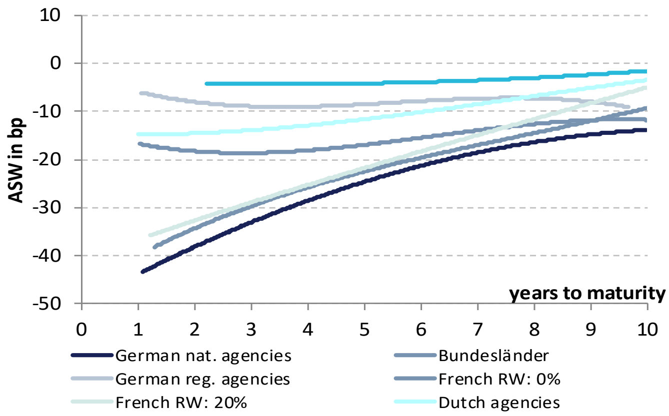
Netherlands & Austria



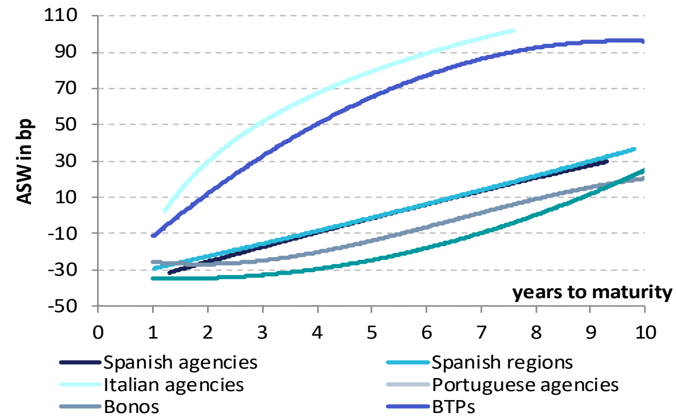
Supranationals



Core



Periphery



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

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
22/2022 ♦ 06 July	▪ H1 review and outlook for H2 2022 ▪ Half time in the 2022 SSA year – taking stock
21/2022 ♦ 22 June	▪ Focus on ESG covered bonds: BayernLB's "green rail" public sector Pfandbrief ▪ Stability Council convenes for 25th meeting
20/2022 ♦ 15 June	▪ Covered bond jurisdictions in focus: a look at Australia and New Zealand ▪ NGEU: Green Bond Dashboard
19/2022 ♦ 01 June	▪ ECB: 3, 2, 1 – lift-off! Decisive June, active summer ahead ▪ The covered bond universe of Moody's: an overview ▪ ECB Financial Stability Review identifies increasing risks in the eurozone: a brief overview of covered bonds
18/2022 ♦ 25 May	▪ Transparency requirements §28 PfandBG Q1 2022 ▪ ESG: EUR-benchmarks 2022 in the SSA segment (ytd)
17/2022 ♦ 18 May	▪ Development of the German property market ▪ The SSA market in 2022 a review of the first four months
16/2022 ♦ 11 May	▪ Focus on covered bond jurisdictions: a look at Austria ▪ Update on DEUSTD – Joint German cities (bond No. 1)
15/2022 ♦ 04 May	▪ Focus on covered bond jurisdictions: Spotlight on Sweden ▪ ESG covered bonds from Germany: DKB issues social Pfandbrief in the form of a "Berlin Social Housing Bond" ▪ Issuer Guide SSA 2022: The Spanish agency market
14/2022 ♦ 13 April	▪ First ECB meeting after the end of the PEPP: (Not) a non-event!? ▪ PEPP reporting: (Not) an obituary
13/2022 ♦ 06 April	▪ ECB adjusts order behaviour in time for the new quarter ▪ United Kingdom: spotlight on the EUR benchmark segment ▪ Issuer Guide SSA 2022: the Nordic agency market
12/2022 ♦ 30 March	▪ An overview of the market for ESG covered bonds ▪ Issuer Guide SSA 2022: the Austrian agency market
11/2022 ♦ 23 March	▪ ESG update 2022 in the spotlight ▪ The ratings approach of DBRS
10/2022 ♦ 16 March	▪ What does the recent ECB meeting mean for covered bonds? ▪ Credit authorisations of the German Laender for 2022
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

NORD/LB:
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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

Beyond Bundeslaender: Greater Paris (IDF/VDP)

Spotlight on Belgian regions

Spotlight on Spanish regions

Fixed Income Specials:

ESG-Update 2022

ECB ready for lift-off: Every journey starts with a first step

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

Appendix
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