Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

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Marketing communication (see disclaimer on the last pages)

Agenda

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Market overview Covered Bonds

Author: Stefan Rahaus

Primary market: three becomes two...

While a total of three issuers had approached the market with the offer of new, publicly placed EUR benchmark covered bonds in the preceding reporting week, this number fell to two in the past week. Last Wednesday, for its fourth market appearance in 2022, the French issuer Arkea Home Loan SFH (ticker: CMARK) raised a total of EUR 500m from investors in a deal with a term of four years and a final issuance spread of ms +15bp (initial guidance: ms +15bp area; order book: EUR 600m). This means that Arkea Home Loan SFH has now issued a total volume of EUR 2.25bn in EUR benchmark bonds in 2022. The issuer has a total of EUR 6.5bn outstanding overall, of which EUR 500m is set to fall due in 2023 (during July). The covered bond market welcomed another newcomer for the year on 01 December in the form of Credit Suisse Schweiz AG (Ticker: CS). Following bonds that had matured in September 2021 (Credit Suisse) and April 2022 (UBS), the jurisdiction of Switzerland was no longer represented on the international market for covered bonds with outstanding EUR benchmarks. Both banks were last active on the primary market back in 2014. Due to the fact that the issuance of Pfandbriefe at individual bank level is not permitted under the Swiss Pfandbrief Act, with only two institutes (Pfandbriefbank and Pfandbriefzentrale) legally authorised to issue Pfandbriefe, the Credit Suisse bond is a covered bond issued on the basis of private contractual law. As a result, the bond backed by Swiss residential mortgages does not qualify for preferential treatment under EU regulations governing either the CRR or LCR. In our opinion, the paper is also not suitable for ECB repo transactions or CBPP3 purchases. In connection with the ongoing restructuring and the uncertainty hanging over Credit Suisse senior bond spreads, the 3y covered bond was marketed with the highest spread for a EUR benchmark issue in 2022 (ms +75bp area). The order book amounting to EUR 1.1bn ultimately resulted in an issuance volume of EUR 750m priced at ms +73bp. In terms of the investor breakdown, banks, which have accounted for an average share of 44% of allocation volumes in 2022, exercised a great deal of restraint, which had been expected here. In total, 72% of the deal went to asset managers/funds, with banks accounting for a share of 16% and 10% going to insurers/pension funds. In regional terms, investors from Germany/Austria led the way at 43%, ahead of those from Nordic nations (19%), the UK (17%) and Benelux states (14%).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Credit Suisse Schweiz	CH	01.12.	CH1230759495	3.0y	0.75bn	ms +73bp	AAA / - / -	-
Arkea Home Loans SFH	FR	30.11.	FR001400EEX5	4.0y	0.50bn	ms +15bp	AAA / Aaa / -	-

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

...although it was the most active November since 2015

At 17.55bn, November 2022 stands out from the crowd in terms of the issuance volume in comparison with recent years. For example, totals of just EUR 5.75bn and EUR 5.0bn were issued in the form of EUR benchmark bonds in November 2020 and 2021 respectively, while the average value across the past ten years for the month of November stands at EUR 9.5bn. The overall issuance volume in the year to date now amounts to EUR 198.625bn.

Secondary market: Nothing new...
The secondary market remains in a state of distress, with widening of just over two basis points on average observed during the past two weeks. It is only at the very short end of up to two years that demand remains intact. APAC jurisdictions such as Australia, New Zealand and Singapore have underperformed, as has Canada too. Bonds placed by issuers in these countries are trading more than three basis points weaker on average. In contrast, the new covered bond placed by Credit Suisse has performed well, tightening from an issuance spread of ms +73bp to ms +65bp in the process.

Fitch believes covered bonds to be protected through OC
According to the rating agency Fitch, the deteriorating economic outlook will only impact covered bond ratings to a limited extent. The majority of Fitch-rated covered bond programmes benefit from a substantial overcollateralisation (OC) buffer that protects bondholders from a significant deterioration in asset quality owing to a reduced ability to service debt on the part of borrowers. At the end of November, the break-even OC for more than 60% of the rated programmes was at least double the level required to maintain the relevant rating level. Together with the buffer against an issuer downgrade, the OC buffer forms one of the two most important protection mechanisms for covered bond ratings.

Westpac Banking Corporation joins the Covered Bond Label
Last week, we reported that Fitch now considers all APAC issuers to be compliant with EU investor information requirements. It was pointed out that various institutions have joined the Covered Bond Label and are conducting their reporting in accordance with the Harmonised Transparency Template (HTT). Now, a further EUR benchmark issuer can be added to these ranks in the form of the Westpac Banking Corporation. The standardised reporting makes it much easier for investors to review and verify LCR eligibility, for example. The Covered Bond Label currently covers a total of 124 issuers with 164 cover pools in 24 different countries. Due to the EU harmonisation project, we expect that investors will continue to strive to achieve minimum standards and comparability, and that other banks will follow the example of the Westpac Banking Corporation. The Australian bank currently has outstanding EUR benchmarks totalling EUR 9.25bn and was last active on the market in mid-November, when it placed a bond worth EUR 750m with a term to maturity of five years. Its next bond set to fall due is worth EUR 1.0bn in December 2023.

RBC acquires HSBC Canada
Royal Bank of Canada (RBC) has announced in a press release that it has agreed a deal to acquire HSBC Canada, which had previously been put up for sale. The takeover is set for completion by the end of 2023. We currently assume that the cover pools and outstanding covered bonds issued by HSBC Canada will be transferred to and integrated in RBC. The outstanding EUR benchmarks of both issuers carry the top rating of AAA/Aaa from Fitch and Moody’s respectively. The takeover by the highly rated RBC should go some way to assuaging the concerns of HSBC Canada investors with regard to a potential downgrade of their covered bonds in the event that the bank were to be acquired by an institution with a weak credit rating.

NORD/LB

Market overview SSA/Public Issuers

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

Internal affairs: outlook for the new year 2023

Next week, we will not only be offering an outlook in connection with the markets for EUR covered bonds and the SSA segment in the new year 2023 as part of this publication, but will also be available to answer your questions related to this topic during a 60-minute teleconference. At 3 p.m. on Wednesday, 14 December, we will offer an "**Outlook 2023**" as part of an MS Teams conference call. This will cover the ECB's future policy approach and the potential issuance volumes from the German Bundeslaender, key e-supras and large European agencies, in addition to what is again likely to be a very high level of fresh supply in the EUR benchmark segment for covered bonds. Finally, we shall also touch upon a handful of regulatory topics. If you wish to take part, please contact markets@nordlb.de directly for the login data to the call. This event will be held in **English**.

North Rhine-Westphalia declares emergency situation

North Rhine-Westphalia (ticker: NRW) has declared a state of financial emergency in order to be allowed to take on additional debts despite the re-application of the debt brake. The background to this story essentially relates to the fact that the draft budget for 2023 presented by the state government of NRW was declared unconstitutional by the Court of Auditors. Specifically, the auditors were concerned with two aspects: firstly, the draft budget provided for a further EUR 4.15bn in debt to be assumed in connection with the NRW rescue package for the coronavirus crisis in 2022, despite the fact that funds are still available under this rescue package. The state audit office described this as unconstitutional borrowing. Secondly, the money raised is not to be spent until 2023 in order to be able to react to the ongoing energy crisis. For this purpose, the state government intended, among other things, to build up a crisis management reserve. Both the shifting of funds and the build-up of reserves, which according to the case law of the North Rhine-Westphalia Constitutional Court may not be invested from credit funds, were the subject of discontent among the senior budget auditors. The state government subsequently resolved unceremoniously to instead declare an emergency so as to still be able to access the financial resources for the upcoming budget. This enables NRW to raise funds in excess of the stipulations in the debt brake, with the NRW state government justifying this measure by referring to the awful economic situation now in play. According to Marcus Optendrenk, Minister of Finance for the State of North Rhine-Westphalia, the state is in a recession that will last well into 2023. Rising energy prices are a particularly challenging problem, since NRW is home to an abundance of energy-intensive enterprises. NRW is not the only Bundesland that has invoked a crisis situation in its budget planning, with the Laender of Bremen and Saxony-Anhalt both having pursued the same approach. Rhineland-Palatinate has opted for a different course: in order to be able to take on old municipal debts, the state constitution was altered so that these do not represent income from loans within the meaning of the debt brake.

NRW.BANK launches special programme for municipal energy providers

The state government of North Rhine-Westphalia has not only invoked an emergency situation (see previous page), but also launched a special programme to strengthen municipal energy providers on 01 December 2022. A total of EUR 5bn will be made available under the programme. The state government has issued the regional development bank NRW.BANK (ticker: NRWBK) with a liability exemption up to this amount. The municipal utilities are each responsible for around two-thirds of the gas and electricity supply across NRW. This special programme, known as "NRW.Liquiditätsstärkung Stadtwerke", is intended to ensure that the public utilities have sufficient funds at their disposal in the face of the energy crisis. For this purpose, the municipalities pass on the funds raised to the respective municipal utilities. In return, the municipalities are obliged to make a display of commitment to the energy suppliers by increasing their share of the liability capital. Furthermore, a ban on bonuses for managing directors and board members as well as a pay-out ban will apply to the participating energy suppliers without endangering the financing of vital public services at municipal level.

Croatia to become 20th ESM member

On Monday, the European Stability Mechanism (ticker: ESM) approved the membership application submitted by Croatia on 29 July 2022. The ratification process of the ESM Treaty in Croatia is expected to be completed by early 2023. Following the introduction of the euro on 1 January 2023, this makes Croatia the 20th member of the European supranational. Croatia will benefit from a 12-year correction phase: during this period, Croatia's authorised capital contribution will amount to EUR 3.695bn, of which a total of EUR 422.29m will be in the form of paid-in capital. After the twelve years, Croatia's authorised capital subscription will ultimately increase to EUR 5.7339bn, with the paid-in capital accordingly revised upwards to EUR 655.3m. We remain curious to see whether the Croatian central bank will also be involved in the reinvestments under the terms of the APP and PEPP from 2023 onwards. However, our requests on this subject have so far been in vain.

There are days when simply nothing happens on the primary market

Over the course of 2022, a record for inactivity was already broken in August: back then, Bloomberg had recorded 32 days when no deals took place in Europe. Although Bloomberg only started recording this data eight years ago, since this time there were 31 inactive days in the most inactive full calendar year. The count has now reached 45 days (02.12.) in the current year. On the same day last year, Bloomberg had recorded "only" 18 inactive new issue days, meaning that 14 more empty days followed in 2021 before the year came to a close. As such, we expect the lack of activity to extend to 55-60 days by the end of 2022.

Primary market

In terms of completed transactions, we have just a single tap deal to report on: the Danish municipal financier KommuneKredit increased KOMMUN 0.625% 05/11/26 by EUR 300m at ms -7bp. Moving on, we received news of a mandate from the European Union (ticker: EU) yesterday, with the books expected to be opened today: under its SURE programme, the EU intends to raise the remaining EUR 6.548bn (WNG) as part of a 15y deal in the form of a social bond, which is customary for this framework. As such, the programme, which is capped at EUR 100bn and set to run until 31 December 2022, will be completed. In addition, a tap deal worth EUR 500m (WNG) will be carried out under the MFA programme.

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

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

Cross Asset
ECB preview – next hike but total assets (finally) reduced?!

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

ECB meeting on 15 December – finally the time for QT, or perhaps not after all?
The ECB's Governing Council will be convening for its last scheduled key rate meeting in 2022 during the coming week. In the run-up to it, the importance of this December meeting should not be underestimated, in our opinion, given the raft of factors and potential policy-related matters. Against the backdrop of ongoing high inflation in the Eurozone, albeit with a downward trend, pressure to implement further interest rate hikes is likely to continue. With macroeconomic sentiment marked by fear of a recession, the steep upward trend in interest rates is becoming an ever bigger challenge for the ECB's Governing Council. The fact that fulfilling the task of balancing 'being still too accommodating' and 'already checking the upsurge in interest rates too much' is like trying to square the circle could be reflected in the ECB's staff projections for December. The delta on the staff projection in September regarding expected growth and/or the continuing sharp rise in prices may provide insights of actual importance for the future course of interest rates. However, tension about the upcoming meeting in addition to concerning the next interest rate steps as well as ECB staff projections also relates to expectations regarding a further reduction of the ECB's total assets. After the ECB announced the controversial retroactive adjustment of the terms for the current TLTRO III tenders at its last monetary policy meeting, the focus has now shifted to reinvesting in the context of the asset purchase programme (APP). As part of this preview, we intend to discuss the above and other aspects, while also addressing the implications for the asset classes we analyse.

Minutes of the meeting in October – quantitative tightening not up for discussion
On 24 November 2022, the ECB published the Minutes of the meeting in October. The latest minutes contained no major surprises. The challenging environment had been discussed, reflecting a combination of considerable uncertainty, inflation concerns and recession fears that can no longer be ignored as well as the increased funding cost of banks. The latter is now also increasingly impacting on private households. In addition to higher consumer prices, the rise in mortgage interest has also become relevant to the private sector, among other things. The possibility of the ECB as a result ending its restrictive pace as soon as possible is not yet evident from the comments presented. Accordingly, our expectation seems confirmed that a few more interest rate steps are still to come before a new normal is achieved. The minutes of the ECB's Governing Council meeting provided no indication yet of possible quantitative tightening (QT). This was also how we interpreted the statement made in October and the subsequent press release (cf. NORD/LB Fixed Income Special of 27 October 2022). At least, the reduction of the central bank's total assets is a topic which has taken hold in the monetary union, initially by addressing the attractive TLTRO III terms. The minutes of the meeting indicated a unanimous decision in this regard. The postponement of the discussion regarding the further APP-related reinvestment strategy until December undoubtedly stoked expectations to a considerable extent that relevant announcements would follow at the forthcoming ECB meeting.

New ECB projections – short-term inflation more important in 2023 than in 2025

According to the minutes, the members of the ECB's Governing Council also discussed the interaction between economic activity and the general price surge as part of the internal debate at the end of October this year. In our understanding, at the core the view prevailed that the expected slowdown in growth and/or a 'mild' recession would not be enough to curb the extreme price surge on a sustained basis. This means that relevant efforts will continue to be required in terms of tight monetary policy. Based on these considerations alone, the ECB staff projections for the coming week will take on particular importance. As is customary in December, the latest figures will be released. Without wishing to spin yarns about the quality of ECB forecasts, the meaningfulness of forecasts up to 2025 is very limited in a year that marks a turning point. Even if the ECB's primary mandate ostensibly is solely to pursue price level stability, recession fears and the risk of an economic downward spiral cannot be disregarded. Accordingly, we expect the ECB's Governing Council to align its interest rate decisions and/or the future direction of its own reinvestment strategy partly with growth expectations, without stating this explicitly.

Opinions of ECB insiders – QT yes, but 'cautiously and carefully'

The reduction of the central bank's total assets carries risks in terms of the stability of financial markets. This also applies in a market environment where further interest rate measures are expected. Gabriel Makhlouf, a member of the ECB's Governing Council who hails from Ireland, anticipates 50 basis points. François Villeroy de Galhau (France) and Mário Centeno (Portugal) most recently were also in favour of 'the 50'. With regard to QT, Makhlouf went on record, stating that starting at the end of Q1 or beginning of Q2 2023 was conceivable. However, he pointed out that the ECB would need to start 'cautiously and carefully'. This would mean a slow start when it comes to shrinking government debt and then accelerate if needed. However, it is likely that opinions within the Governing Council are controversial.

A three-part QT scenario analysis under the APP

We have come up with three possible APP scenarios for the coming week:

Scenario 1: *time to prepare* – the Governing Council resolves to end the reinvestment phase soon, with a 'medium term' time horizon, while continuing to reinvest in full any securities maturing up to then.

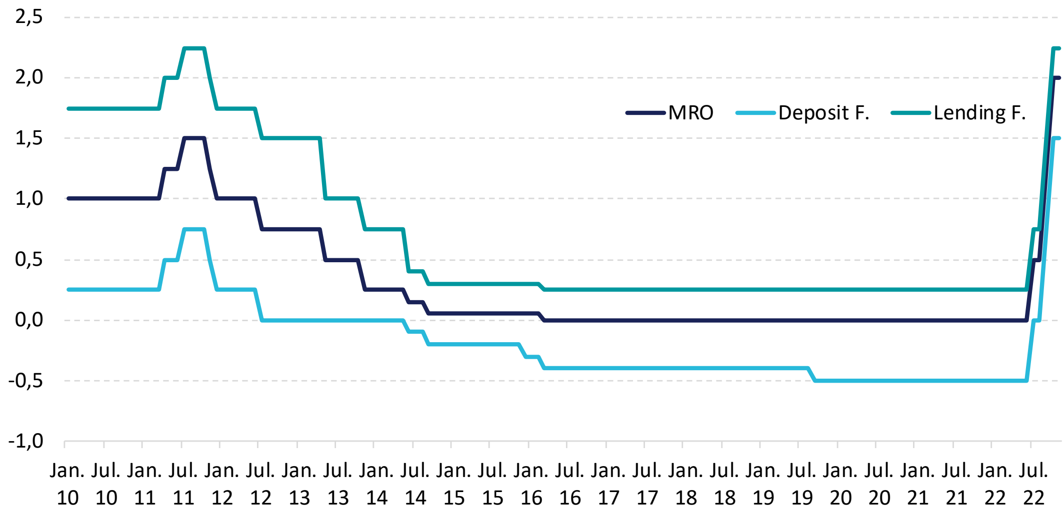
Scenario 2: *a test for the market* – start phasing out reinvestment in full 'at very short notice' (e.g. as at 2 January 2023, reinvest only 80-90% of securities maturing) and then gradually reduce the percentage.

Scenario 3: *put on the back burner* – the ECB's Governing Council does not communicate a concrete decision; instead, it continues unchanged to refer to the well-known decision-making variables, data dependency and the meeting-by-meeting approach. We subsequently consider a QT start to be probable in the second half of next year.

Specific expectations – interest rate move of at least 50 basis points and QT plan

The Federal Reserve leads the way by example, with its staggered QT model. Maturing bonds are successively no longer reinvested in full. We strongly assume that the ECB will carefully be considering behind the scenes which tool will be appropriate for the situation in the Eurozone and which interest rate move may be accompanied by QT under the APP. Now that inflation has peaked, we no longer expect 75 basis points but instead, 'a minimum of' 50 basis points. In early November this year, the situation was different because the yield curve of two to ten years was flat rather than inverted, which it has since become.

ECB key rates (in %)



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

NORD/LB's opinion on the future course of interest rates – what else is to come?

The ECB gave no explicit statements about pace, extent and the target rate at its last meeting or in subsequent interviews. The central bank emphasised that in the current situation, it was only able to take decisions from meeting to meeting – obviously following thorough consideration and discussion of the economic data received and on condition that the target inflation of 2.0% would be achieved again in the medium term. President Lagarde indicated that significantly higher key rates may be necessary to get there. She was aware that in the event of supply side shocks causing inflation, this would result in adjustments in demand. According to our economists, this suggests that the European Central Bank will first look at inflation and then the economy. However, some observers have come to the opposite conclusion and believe that the central bank may get cold feet in view of a likely recession. Overall, the economists on NORD/LB's Macro Research Team anticipate a tender rate of 2.50% at year-end 2022 and 3.25% as at 30 June 2023. It seems that the ECB is set to maintain its course in the current market environment, which is subject to fears of a recession. This also makes sense in that many of the ECB's decision-makers place the triggers for the trend towards recession on the supply side. With regard to the capital markets, NORD/LB's opinion is that Bunds (10y) will stand at 2.30% by mid-year 2023. Whether highs as seen at the start of November this year will reoccur is something that we are currently discussing almost daily and for which we hope for considerable impetus from the upcoming ECB meeting, as well as the first three meetings in 2023 (2 February, 16 March and 4 May). The difference to the swap curve, on which we regularly focus in relation to the asset classes we analyse – public issuers and covered bonds – would then be 75 basis points for 10y maturities, which would represent a sideways movement in respect of the current level (73 basis points).

Pending ECB decision – impact on public issuers (SSA)…

We are convinced that the effect of the upcoming interest rate decision will not be too negative on the funding terms for supranationals, German Laender and, for example, KfW. While supranationals do not act in the vacuum of the above-mentioned economic tensions, if order books are several times oversubscribed anywhere, it is in this sub-segment. Moreover, most market players already expect an interest rate hike of at least 50bp and have priced it in. The German Laender are currently showing restraint, although we have seen one the odd small bond issue (sub-benchmark or tap) in the last few trading weeks. The ongoing turnaround in interest rates towards a new normal may impact differently on other European regions beyond the German Bundeslaender. The tax revenue of some issuers may not be as abundant, and yet other issuers will have a tighter budget than the Laender.

…and on the covered bond market

The upcoming interest rate decision will have some implications worth mentioning on the EUR benchmark covered bond segment we review. Significant indications with regard to the dwindling influence of the Eurosystem on the market mechanism are expected. In terms of a trend, the October meeting resulted in increased primary market activities, which were partly – but by no means only – attributable to the adjusted TLTRO III terms. Although the volume returned on the first voluntary repayment date (23 November 2022) fell short of expectations, in our opinion this does not equate to commercial banks holding on to the central bank money borrowed for too long. Looking to the future, the reduction of the ECB's total assets in the context of the APP goes hand in hand with a fading presence of the Eurosystem in the primary and secondary markets. To this extent, the December meeting will be trendsetting, although 'this time' the main focus is likely to be on the demand side. We also place the latest spread widening in the context of the 'normalisation' expected by the markets with regard to the ECB's monetary policy. The combination of declining demand from the Eurosystem for covered bonds and an increased issuance volume is an additional indicator of further spread widening, although – as mentioned above – we assume that some of this has already been anticipated.

Conclusion and outlook

We expect a hike of a minimum of 50 basis points for all three of the relevant ECB interest rates. Less than a month ago, a 75bp hike was assumed. The ECB will have to be bold and take on the balancing act of fulfilling its duty to achieve a symmetrical target inflation of 2% while at the same time avoiding the pitfall of ushering in a severe recession. This could plausibly be complemented with a first serious announcement on quantitative tightening. We developed three scenarios to illustrate the possible developments: announce but continue to hike interest rates, reinvest assets to a level of 'only' 80-90% from as early as January 2023, or continue to avoid the topic. In view of the ECB's meeting-by-meeting approach, neither the target interest rate level (the new normal) for 2023 is clear, nor an exit from the APP and PEPP total assets amounting to more than EUR 5,000bn. A departure from the first line of defence of the PEPP used to date (reinvestment until at least the end of 2024) would represent a spectacular U-turn on the forward guidance. We therefore only expect concrete statements about the APP.

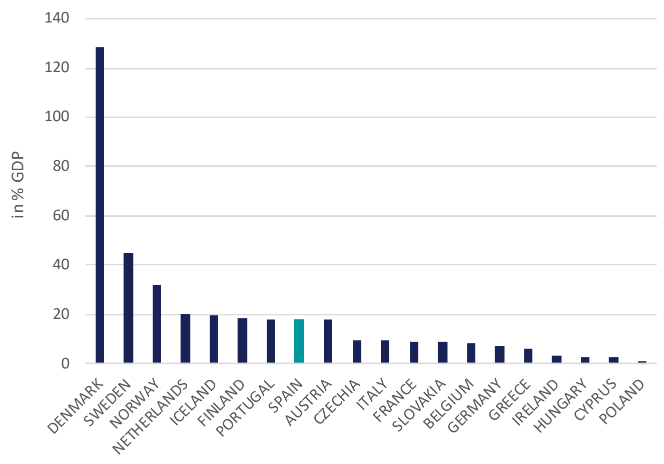
Covered Bonds
Covered bond jurisdictions in the spotlight: a look at Spain

Author: Stefan Rahaus

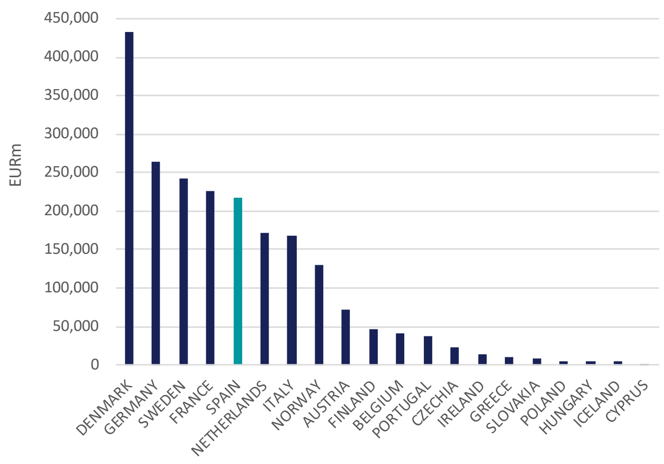
Spanish covered bond market: among the front-runners based on size…

Spain is the fourth largest economy in Europe based on GDP and number of inhabitants. In relation to GDP, however, the Spanish mortgage-backed covered bond market is only ranked in the upper mid-table at EEA level. In 2021, the outstanding volume of mortgage covered bonds accounted for 18.0% of annual economic output, whereas supposedly smaller covered bond jurisdictions including Denmark (128.8%), Sweden (45.0%), Norway (31.9%), the Netherlands (20.1%), Iceland (19.8%), Finland (18.7%) and Portugal (18.1%) have recorded higher shares in percentage terms. As at year-end 2021, however, Spain was still well ahead of the two biggest economies (based on GDP), namely Germany (7.4%) and France (9.1%). Measured in relation to the total volume of outstanding covered bonds and based on the latest ECBC annual statistics (dated 31 December 2021), Spain ranks in fifth place with EUR 217bn behind Denmark (EUR 434bn), Germany (EUR 264bn), Sweden (EUR 242bn) and France (EUR 227bn).

Outstanding mortgage covered bonds (2021; % of GDP)



Outstanding mortgage covered bonds (2021; EUR m)

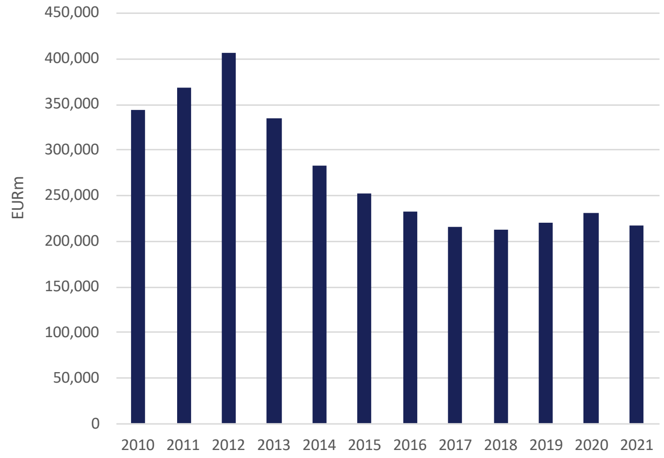


Source: EMF Hypostat 2022, NORD/LB Markets Strategy & Floor Research

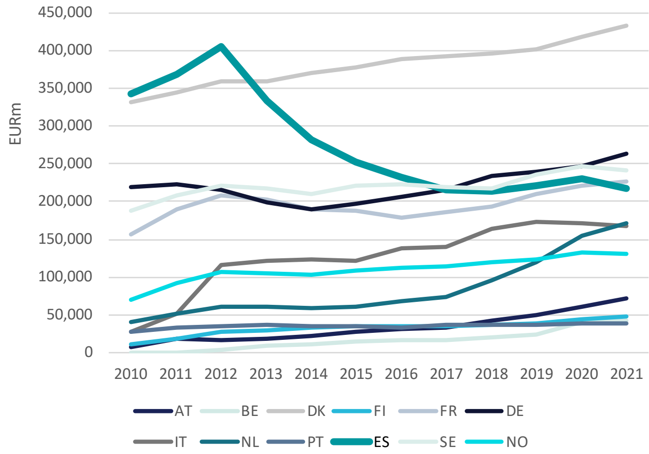
…but has shrunk significantly in the last 12 years

Whereas the total outstanding volume of mortgage-backed covered bonds was still between EUR 343bn and EUR 407bn in the period from 2010 to 2012 - or 57% to 58% of GDP - the amount dwindled to between EUR 216bn and EUR 231bn in the period from 2017 to 2021 (17.7% to 21.6% of annual economic output). This development is especially noteworthy since it bucked the trend seen in almost all the other EEA countries, some of which saw substantial increases in the volume outstanding. Denmark, for example, saw an increase from EUR 332bn to EUR 434bn between 2010 and 2021; Germany recorded an increase from EUR 220bn to EUR 264bn, France from EUR 156bn to EUR 227bn and Sweden EUR 189bn to EUR 242bn. One reason for this, in our view, is the impact of the crisis in the real estate market in response to overheating in the years from 2005 to 2009.

Spain - outstanding mortgage covered bonds (EUR m)



Outstanding mortgage covered bonds from selected EEA countries (EUR m)



Source: EMF Hypostat 2022, NORD/LB Markets Strategy & Floor Research

Covered bond issuers from Spain

In our NORD/LB Issuer Guide Covered Bonds 2022 which focuses on the EUR benchmark and EUR sub-benchmark segments, we outline 13 issuers from Spain and their cover pools. Of these, the biggest is Caixa Bank (ticker: CABKSM) with a cover pool of EUR 137.4bn and an outstanding volume of EUR 69.2bn. It ranks ahead of Banco Santander (pool: EUR 80.9bn; covered bond volume: EUR 51.2bn). Up until the implementation of the Covered Bond Directive, only hard bullet bonds were issued in Spain. Under the new legislation, bonds can also be issued with a soft bullet structure. Overcollateralisation levels for the outstanding issues in Spain can be regarded as high by international comparison, with figures of well over 100%, although this has changed significantly since the implementation of the Covered Bond Directive (cf. paragraph entitled "Spanish cover pools in Q3 2022: quality up, volumes down"). With the exception of Cajamar Caja Rural whose covered bonds are assigned an AA rating by S&P, all other 12 institutions are assigned a covered bond rating of Aa1 (among others) by Moody's.

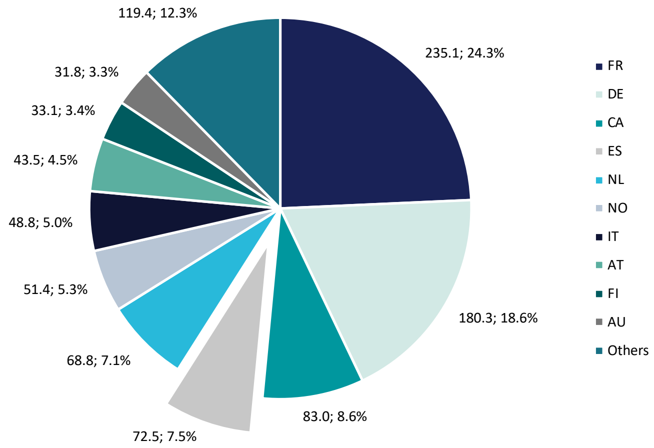
Extract from NORD/LB Issuer Guide Covered Bonds 2022: Spanish EUR benchmark issuers

Bank	Type	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	ESG-BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
ABANCA (ABANCA)	M	16,109	2,990	438.8		1 / 10%	HB	- / Aa1 / AA+ / -
Banco de Sabadell (SABSM)	M	43,589	15,936	173.5		1 / 10%	HB	- / Aa1 / - / AAA
Banco Santander (SANTAN)	M	80,899	51,179	58.1		1 / 10%	HB & SB	AA / Aa1 / - / -
Bankinter (BKTSM)	M	33,800	15,712	115.1		1 / 10%	HB	- / Aa1 / AA+ / -
BBVA (BBVASM)	M	41,704	29,945	39.3		1 / 10%	HB	- / Aa1 / AA+ / AAA
CaixaBank (CABKSM)	M	137,430	69,188	98.6		1 / 10%	HB	- / Aa1 / AA+ / AAA
Caja Rural de Navarra (CRUNAV)	M	5,401	2,450	120.4	X	1 / 10%	HB	- / Aa1 / - / -
Cajamar Caja Rural (CAJAMAR)	M	13,061	5,000	161.2		1 / 10%	HB	- / - / AA / -
Deutsche Bank S.A.E. (DB)	M	7,500	5,350	40.2		1 / 10%	HB	- / Aa1 / - / -
Eurocaja Rural (EUROCR)	M	3,441	1,200	186.7	X	1 / 10%	HB	- / Aa1 / - / -
Ibercaja Banco (CAZAR)	M	18,234	4,100	344.7		1 / 10%	HB	- / Aa1 / AA / -
Kutxabank (KUTXAB)	M	24,729	1,347	1736.3	X	1 / 10%	HB	- / Aa1 / AA+ / -
Unicaja Banco (UCAJLN)	M	36,067	9,664	273.2		1 / 10%	HB	- / Aa1 / - / -

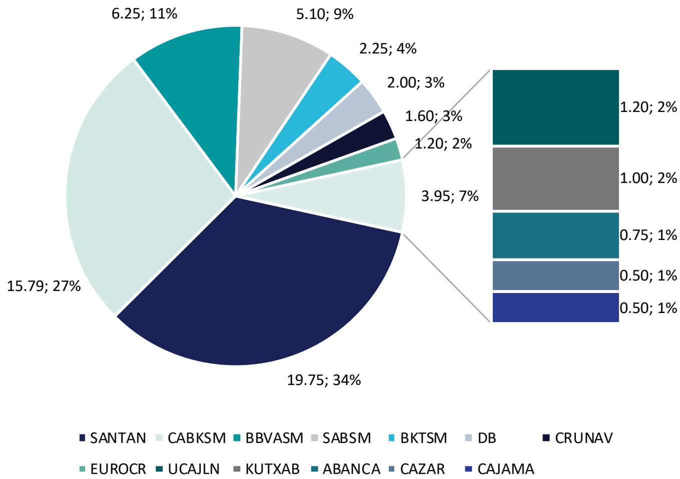
Source: Banks, rating agencies, NORD/LB Markets Strategy & Floor Research

Spain ranks fourth as EUR benchmark issuer, SANTAN and CABKSM top of the table: As regards the EUR benchmark segment that we focus on, and based on outstanding volume (currently EUR 72.55bn, 7.5%), Spain is ranked in fourth place behind France, Germany and Canada. This amount reflects 58 issues from 15 issuers. Unlike in our NORD/LB Issuer Guide Covered Bonds 2022, this total also includes multi cédulas from the period 2005 to 2007, amounting to a total of EUR 14.66bn, which we have not taken into account in the graph entitled "ES: outstanding EUR benchmarks (EUR bn)". The remaining amount comes to EUR 57.89bn, split between 51 ISINs. Of these, Banco Santander ranks in first place based on both volume (EUR 19.75bn) and number of issues (14), ahead of Caixa Bank (EUR 15.79bn from 11 ISINs). As such, the two institutions together account for 61% of the market segment.

Breakdown by jurisdiction (EUR BMK, EUR bn)



ES: outstanding EUR benchmarks (EUR bn)

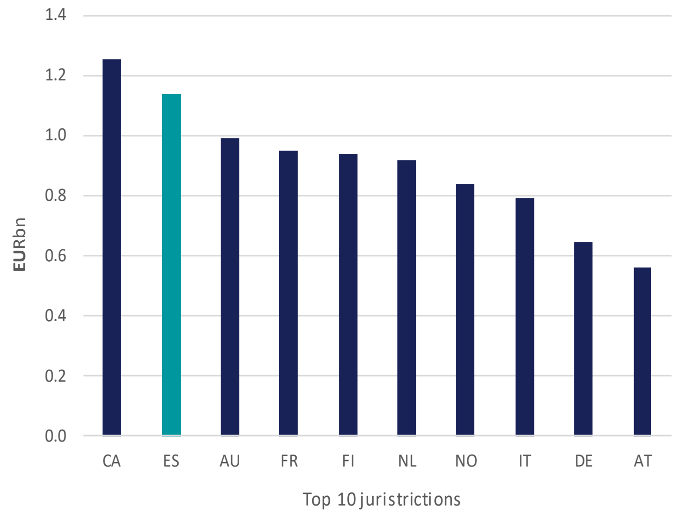


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

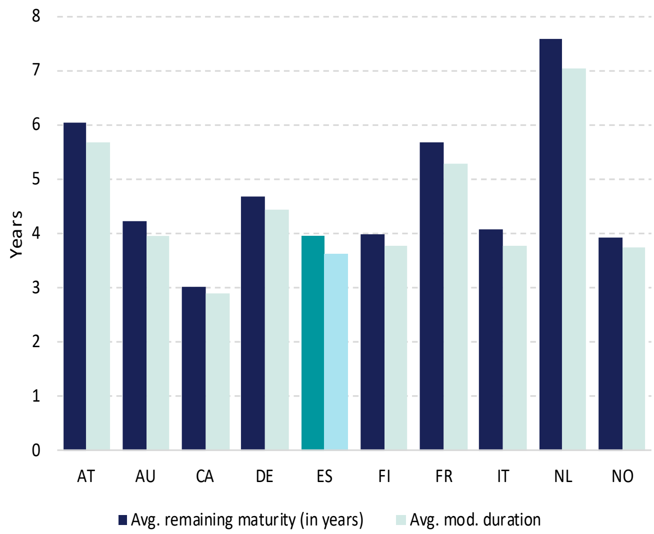
Characteristics of Spanish EUR benchmark issues

The average issue size of Spanish institutions is quite high by international standards, at EUR 1.14bn; Canada is the only other country with an issue size in excess of EUR 1.0bn, at EUR 1.26bn. By comparison, the two biggest EUR benchmark jurisdictions, namely France and Germany, lag some way behind with figures of only EUR 0.95bn and EUR 0.64bn respectively, while the average amount for the top ten countries stands at EUR 0.85bn. In contrast, the average time to maturity of outstanding EUR benchmarks and the modified duration is quite short compared with the top ten jurisdictions (3.9 and 3.6 years as against 5.0 years and 4.7 years respectively). This could potentially hint at above-average new issuance activity on the part of Spanish issuers in the EUR benchmark segment in the coming years.

Average issue volume (EUR bn)



ES: residual maturity / mod. duration (years)

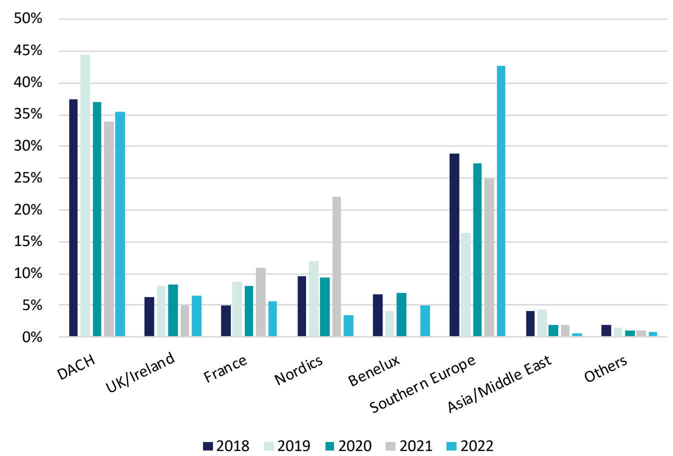


Source: Market data, issuers, Bloomberg, NORD/LB Markets Strategy & Floor Research

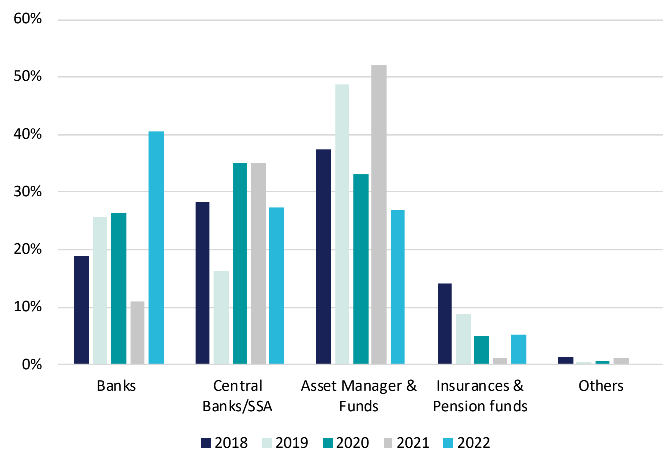
Investor breakdown: above-average demand from Southern Europe

The Spanish covered bond segment also shows a number of particular features in relation to investor breakdown: whereas, as a rule, banks are the largest investor (on average across all issues since 2018, 42% of the allocation went to bank investors), the proportion is much lower at 27% in the case of Spanish covered bonds. However, the two amounts were similar in 2022. The lower average share for banks is offset by a higher share of allocations in the "Asset Manager and Funds" category, which has been allocated an average of 38% in the case of Spanish issues since 2018, whereas the allocation in the overall universe is only 26.3%. The allocation to "Central Banks/SSA" is only just above the average in the case of Spanish covered bonds; it stood at 26% in the last five years (24.4% all issues). Regionally, investors from the German-speaking DACH region comprising Germany, Austria and Switzerland make up the largest group on average since 2018, at 39%, ahead of Southern Europe (27%), whereby in 2022, the regional share of Southern Europe increased substantially to 40%.

ES: investor breakdown by region (%)



Spain: investor breakdown by type of investor (%)

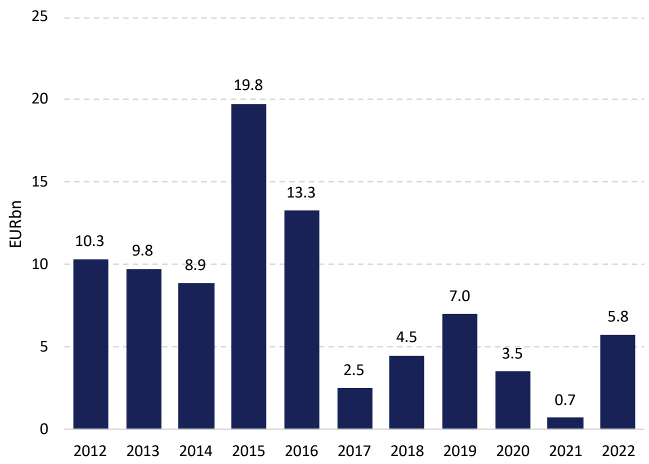


Source: Market data, issuers, Bloomberg, NORD/LB Markets Strategy & Floor Research

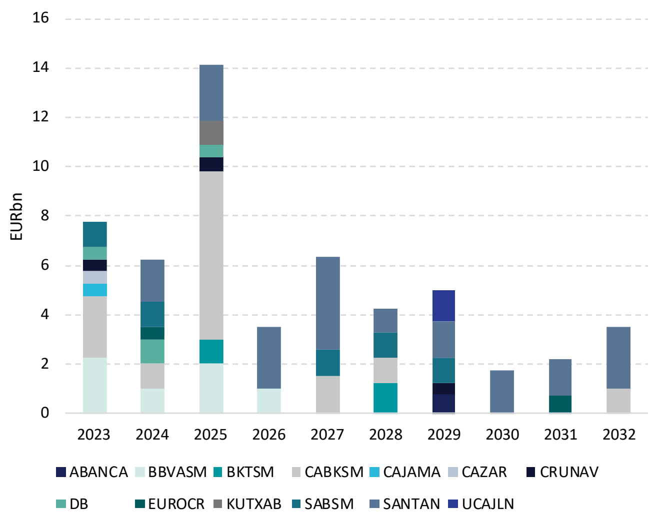
Issues and maturities: high level of maturities over the next three years

As mentioned earlier, the outstanding volume of Spanish mortgage covered bonds has fallen sharply in the last few years. The graph entitled "ES: EUR benchmark issues 2012 to 2022 (EUR bn)" highlights a sharp decline in the issue volume of EUR benchmark bonds in Spain, especially since 2017. In 2022, Spain ranked ninth in the country rankings with EUR 5.75bn (2.91% of all new issues ytd) spread across five transactions. In addition to Caja Rural de Navarra in February (EUR 500m; 7y; ms +15bp) and Banco de Sabadell in May (EUR 1.00bn; 7y; ms +16bp), Banco Santander and Bankinter were also active in the second half of the year after the introduction of the new legislative framework. At the beginning of September, Banco Santander issued a 5-year/10-year dual tranche (EUR 2.25bn and 1.25bn; ms +20bp and 42bp), while at the end of November, Bankinter placed a 5.5-year EUR 0.75m bond at ms +40bp. In 2021, we only reported EUR 700m of publicly placed covered bonds from Spain, whereas the figure was EUR 3.5bn in 2020. In contrast, in the period from 2012 to 2016, the average issue volume was as high as EUR 12.38bn. This trend reflects firstly a decline in total volume, and secondly the fact that Spanish banks seem to have made increasing use of alternative funding options, offered mainly by the ECB (e.g. TLTRO III). Following the last ECB decision regarding TLTRO III conditions, we definitely see the possibility of a turnaround in relation to new issuance behaviour on the part of Spanish institutions in the public market. Owing to a relatively short average residual maturity (cf. chart above), the maturity structure up to 2032 shows a high volume of pending covered bond repayments on the part of Spanish issuers over the next three years. In this context, 2025 stands out in particular with maturities amounting to EUR 14.14bn - a circumstance that investors and issuers should keep a close eye on.

ES: EUR benchmark issues 2012 to 2022 (EUR bn)



ES: EUR benchmarks - maturities 2023 to 2032 (EUR bn)



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

Legal framework for covered bonds in Spain

In Spain, the legal framework for the issuance of covered bonds is defined in Royal Decree Law 24/2021; RDL of 02 November 2021. The new law has served, among other aspects, to implement the Covered Bond Directive (EU Directive 2019/2162; CBD) which came into force on 08 July 2022. The preferential claim of covered bond investors on cover assets (dual recourse) is also based on this framework. Spanish covered bond issuers are subject to the supervision of the Banco de España, Spain's central bank, which has to authorise the launch of each covered bond programme. The three most important types of covered bonds are mortgage-backed (cédulas hipotecarias, CH), public-sector backed (cédulas territoriales, CT) and export-finance backed bonds (cédulas de internacionalización, CI). In each case, these may only be backed up to a maximum of 10% by substitute assets. In practice, all outstanding EUR benchmark issues are currently mortgage-backed. Spanish banks issue their covered bonds from their own balance sheets (no special bank principle) and cover assets must now be reported in separate registers. When a mortgage cover asset is included in the cover pool, a valuation update has to take place which must be checked at least once a year. The LTV limits applying to mortgage assets depend on the type of cover; this stands at 80% for residential properties and 60% for commercial real estate, whereby loans may only be included in the cover pool as a whole and not in part. The geographical focus is on the EEA; this applies to both mortgage loans and public cover. There were amendments in relation to the repayment structure. Whereas previously only hard bullet bonds were possible, the new legislation now also allows for maturity extensions (in other words: bonds with a soft bullet structure). The two banks that publicly placed covered bonds this year after the new regulations came into force on 08 July 2022 (Banco Santander in September and Bankinter in November) have already made use of this option, issuing their bonds in soft bullet format. Since issues with extendable maturities are generally rated as positive by the rating agencies, we expect further issuers to follow this example in future. Overcollateralisation (OC) requirements have been reduced substantially with the introduction of the new framework. The OC requirement has generally been reduced to 5%, whereas it previously still stood at 25% for mortgage-backed bonds and 43% for public sector bonds. The legal requirements apply from the day of introduction for all existing bonds, so that Spanish institutions had to adjust cover pools, reporting, valuations, etc. accordingly. Therefore, in our view, the Spanish banking market has made the most far-reaching changes in its national framework compared with other European countries in the wake of the European harmonisation project.

Regulatory classification

Spanish covered bonds meet the requirements of Art. 129 CRR. In the credit risk standardised approach, covered bonds can therefore benefit from a risk weight of 10% in the best-case scenario. In addition, the EUR benchmark bonds placed by issuers on which we are focusing are ECB-eligible as per the ECB collateral framework. On balance, adjustments to the legal framework in the wake of the harmonisation of the European covered bond market also represent an improvement in credit quality for Spanish covered bonds. Bonds placed by Spanish issuers from 08 July 2022 onwards are entitled to carry the "European Covered Bond (Premium)" label.

An overview of legislation: Spain and Germany

Country	Spain	Germany
Name	Cédulas hipotecarias / cédulas territoriales / Cédulas de internacionalización	Public Pfandbriefe, mortgage, ship & aircraft Pfandbriefe
Abbreviation	CH, CT, CI	Öpfe, Hypfe, Schipfe, Flupfe
Special act	Yes	Yes
Cover assets (incl. substitute cover, if applicable)	Mortgage loans, public sector receivables, export credits	Mortgage, ship and aircraft loans, public sector receivables
Owner of the assets	Issuer	Issuer
Special bank principle	No	No
Geographical restriction - mortgage cover	EEA	EEA, CH, US, CA, JP, AU, NZ, SG, UK[1], Schipfe and Flupfe worldwide
Geographical restriction - public sector cover	EEA	EEA, CH, US, CA, JP, UK[10]
LTV ratio - mortgage cover	Home loans: 80% Commercial: 60%	60% of the LTV
Legal priority in bankruptcy	Yes	Yes
Cover register	Yes	Yes
Derivatives in the cover pool	Yes	Yes
Substitute cover	Yes	Yes
Substitute cover limit	10%	15% Öpfe, 20% Hypfe, Schipfe, Flupfe
Minimum overcollateralisation	5% nominal	Hypfe/Öpfe: 2% Schipfe/Flupfe: 5%
Asset encumbrance	-	-
Maturity extension	Yes	Yes
Triggers for maturity extension	Insolvency, liquidation, lack of liquidity, breach of liquidity requirements	Issuer insolvency / liquidation
CRD met	Yes	Yes (does not apply to aircraft Pfandbriefe)
ECB eligibility	Yes	Yes

Source: national laws, ECBC, NORD/LB Markets Strategy & Floor Research; research

[1]Non-EEA assets limited to 10% unless the collateral is guaranteed

Rating agencies positive about new legislative framework

The rating agencies Moody's, Fitch, Scope and DBRS are generally positive about the new covered bond framework and adjustments made in Spain. Among other aspects, they cite the introduction of a liquidity buffer of 180 days, the option of maturity extension (soft-bullet issues), the rule which requires the cover register to be supervised by a cover-pool monitor, improved transparency and disclosure regulations along with stricter LTV limits (80% for residential property and 60% for commercial loans) as positive factors in this regard. This has led to a marked improvement in the quality of cover pools, according to the rating agencies. As is obvious from the published reports for Q3 2022, however, there has also been a marked downsizing in cover pool volumes. This trend is also driven by the fact that, under the old framework, an issuer's entire non-securitised mortgage portfolio served as collateral for cédulas hipotecarias, leading to very high overcollateralisation ratios in the process (on average three-digit percentage figures). Under the new legislation, a specific cover pool now has to be created for each covered bond programme in line with the regulations (LTV limits, maximum 30-year maturity, among other aspects) which must then be entered into a cover register. This has led to higher-risk loans that exceed the LTV limit no longer being included in the newly formed cover pools, a circumstance which applies to a higher percentage of commercial loans. Consequently, the share of mortgage loans - which are generally seen as less risky - has risen sharply from around 80% to around 90%.

Spanish cover pools in Q3 2022: quality up, volumes down

In addition to the measures quoted above, issuers have significantly reduced the share of loans in arrears in their cover pools, although the new legal framework does not set out any specific requirements in this regard. On balance, in the view of various rating agencies, there has also been a marked improvement in the credit quality of the cover pools of Spanish issuers. On the other hand, the volume of assets securing Spanish covered bonds has dwindled sharply - from EUR 387.9bn to EUR 256.8bn - according to Moody's. Consequently, the level of overcollateralisation has also declined significantly. Moody's analysts now put average OC at 32.1%, whereas it previously stood at 303.8%. As such, although overcollateralisation is well above the legal requirement of 5%, it is below the European average, calculated by Moody's at 56.7%. The OC range for individual issuers of cédulas hipotecarias currently fluctuates between 13.5% and up to 62.9%; under the old framework, the range was 50.8% to 1,717.8%.

Spanish banking market: consolidation and current developments

The Spanish banking system has gone through a fairly major consolidation process in the last few years through various bank mergers. In order to strengthen business models and profitability, four of the 12 most important Spanish banks authorised the consolidation of their business activities through corresponding company transactions. In September 2020, CaixaBank merged with Bankia (second and fourth largest banks in Spain based on assets) to form the biggest bank in Spain with a total loans portfolio of EUR 368bn. Confirmation of the second merger - involving Unicaja and Liberbank in December 2020 - led to the creation of the fifth largest bank in Spain with a loans portfolio of EUR 55bn. Lately, Spanish institutions have published much improved earnings figures in comparison with 2021 and were able to post an increase in net interest income (NII) on the back of a general rise in interest rates. Non-performing loans as per August 2022 were close to a record low of 3.9%, well below the all-time high of 13.6% in December 2013. However, there is currently a certain amount of political headwind to deal with: the Spanish government is planning to introduce a special tax and to rake in a total of EUR 3.0bn from a tax of 4.8% on the banks' interest and commission income over the next two years, which is likely to dampen the earnings of Spanish banks. In addition, the Spanish government is planning a package of measures of ease the mortgage burden on low-income households and middle-class families. The arrangements include, among other aspects, grace periods during which borrowers can postpone payments on principal of their loan and extended repayment terms along with cheaper options for debt restructuring. In a comment dated 28 November 2022, the rating agency Fitch assessed these plans as neutral for the asset quality of Spanish banks, since only a small proportion of the outstanding home loans are affected and there will be no defaults for the time being. However, around 75% of mortgage loans still have a variable rate, despite the fact that the proportion of fixed-rate mortgages has risen sharply over the past few years. In contrast, Moody's is slightly more critical of the support measures, describing them as "credit negative" in a Sector Comment dated 29 November 2022. This is because extended maturities and a reduction in or postponement of interest payments reduces the quality of the cover pools. Together with a special tax, we regard the package of measures to support mortgage holders as a burden for Spanish banks and definitely see a disadvantage for their covered bonds in relation to other jurisdictions.

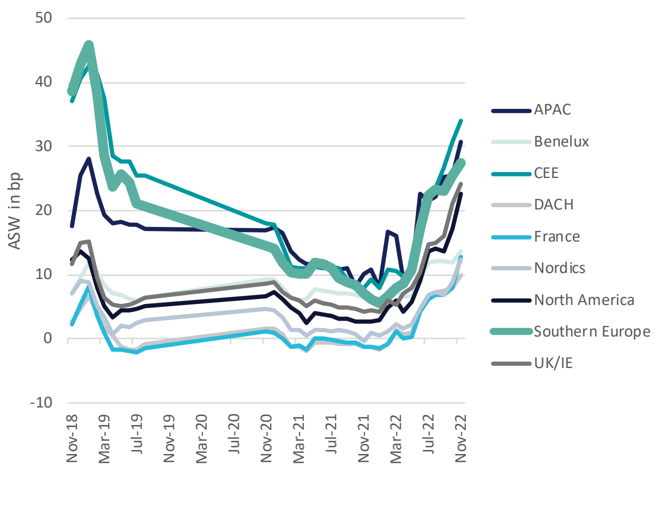
ESG segment in Spain: definitely potential for expansion

Spanish issuers currently have five outstanding bonds with an ESG background amounting to a total volume of EUR 3.3bn, or the equivalent of 5.7% of the EUR benchmark segment in Spain. Caja Rural de Navarra (CRUNAV) had already placed two "sustainability" covered bonds with investors and issued its first green covered bond in February 2022. Kutxabank was a pioneer in the ESG segment in Spain, having issued a ten-year social covered bond as far back as 2015. Eurocaja Rural brought life to the Spanish ESG sub-market for sustainable bonds in September 2021. As such, the green sub-segment is significantly underrepresented in Spain by international standards and there is definitely room for an increase in the total outstanding volume of ESG covered bonds, for example in relation to Germany (EUR 16.5bn) or France (EUR 15.0bn).

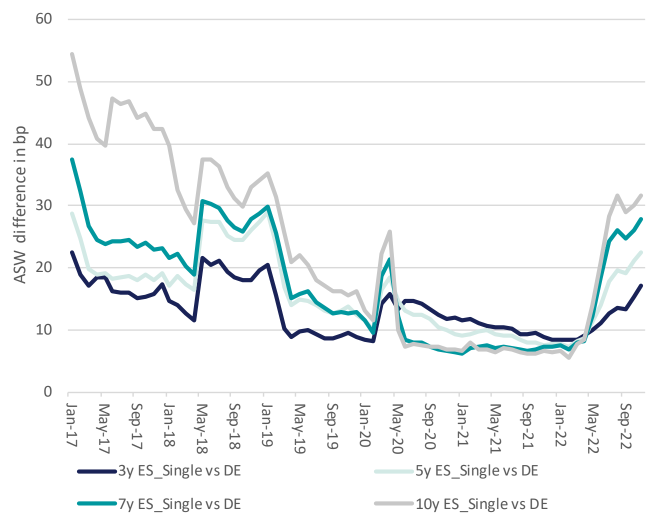
Spread trends in the current environment

In terms of the spread trends in the Spanish EUR benchmark segment, these mostly moved in line with those in other covered bond jurisdictions, which widened in the wake of the start of the war in Ukraine as well as in the context of the beginning of rate hikes by the ECB in conjunction with a high supply volume. At the same time, the gap in relation to other regions has widened significantly, a situation which is also clear from the spread in relation to Germany. Whereas the spread was still around 10bp across all maturities at the beginning of 2022, it has now widened to 17bp in the three-year segment and to over 30bp in the ten-year segment, indicating an underperformance by Spanish covered bonds. In addition, the curve has become much steeper.

Spread trend (5y, generic)



ES vs. DE: spread trend (3y, 5y, 7y, 10y; gen.)



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

Spread outlook and issuance forecast for 2022/2023

In light of the prospect of declining support from the ECB in 2023, since we then expect the ECB to have introduced quantitative tightening measures by then, we believe that a further widening of spreads for Spanish cédulas hipotecarias next year is definitely possible. Taking into account maturities of EUR 7.75bn in 2023 (EUR 9.35bn incl. multi cédulas) in the EUR benchmark segment, we expect an issuance volume of around EUR 10.0bn from Spain, which would result in a net positive supply of around EUR 2.25bn in 2023.

Conclusion

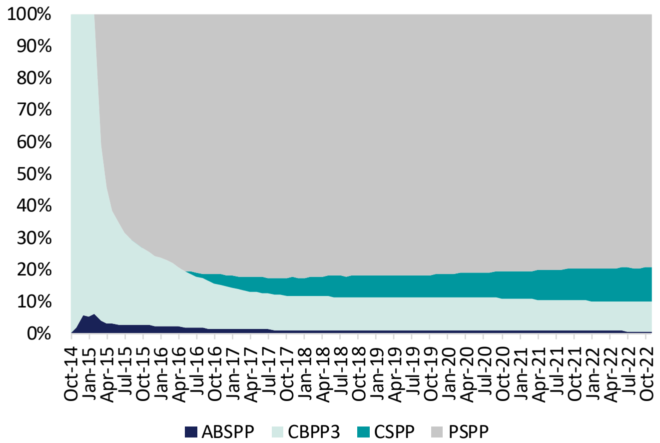
We regard the Spanish EUR benchmark segment as well placed internationally, not least on the back of the new legislation. The Spanish banking market can be described as solid, even though the picture is somewhat overshadowed by emerging problems on the horizon. The real estate market has not experienced any of the kind of overheating observed in the period between 2005 and 2008 or any of the exaggerated price rises seen in other European countries. As such, the quality of assets in the cover pools of Spanish issuers should to a certain extent be cushioned against downturns in the economy or real estate market. Nevertheless, after the decline in issuance volumes in the last few years, we expect stronger issuance activity by Spanish issuers in 2023 and a positive net supply of EUR 2.25bn with a moderate widening of spreads. The Spanish ESG segment definitely offers the potential for catching up in relation to other jurisdictions and we expect stronger issuance activity on the part of Spanish lending institutions in this segment.

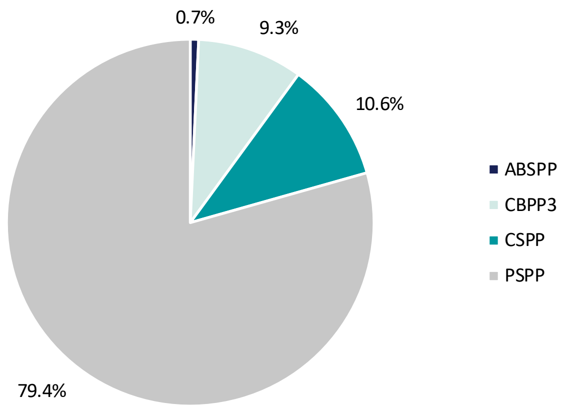
ECB tracker

Asset Purchase Programme (APP)

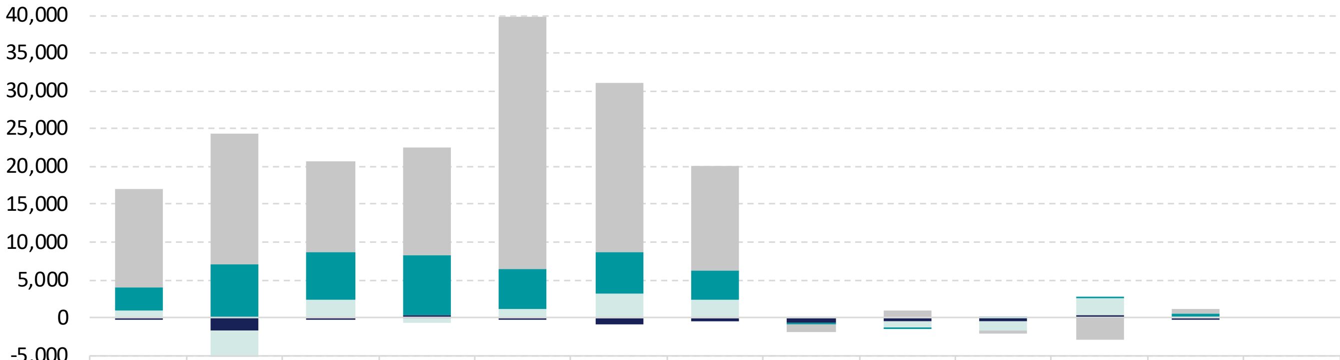
	ABSPP	CBPP3	CSPP	PSPP	APP
Oct-22	23,844	302,385	344,527	2,585,180	3,255,936
Nov-22	23,839	302,482	345,039	2,585,720	3,257,080
Δ	-5	+97	+513	+540	+1,145

Portfolio structure





Monthly net purchases (in EURm)

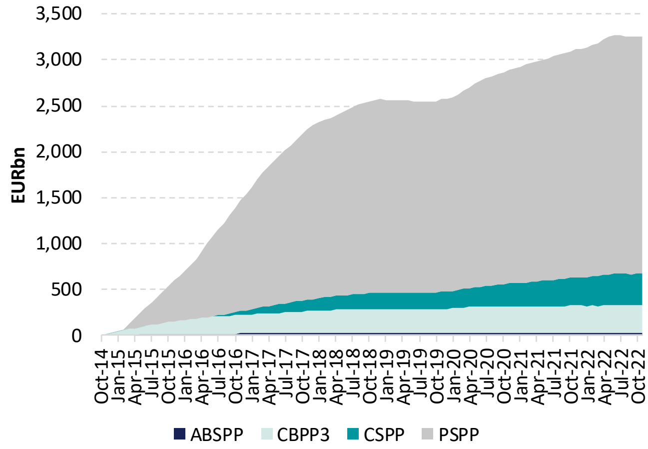


	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	∑
APP	16,596	18,838	20,698	21,929	39,397	30,232	19,722	-1,759	-656	-1,884	-320	1,145	163,938
PSPP	12,989	17,292	12,095	14,172	33,238	22,443	13,924	-1,114	869	-315	-2,938	540	123,195
CSPP	3,007	6,970	6,272	8,042	5,461	5,366	3,858	-141	-253	164	139	513	39,398
CBPP3	942	-3,761	2,376	-606	1,074	3,247	2,339	217	-787	-1,210	2,229	97	6,157
ABSPP	-342	-1,663	-45	321	-376	-824	-399	-721	-485	-523	250	-5	-4,812

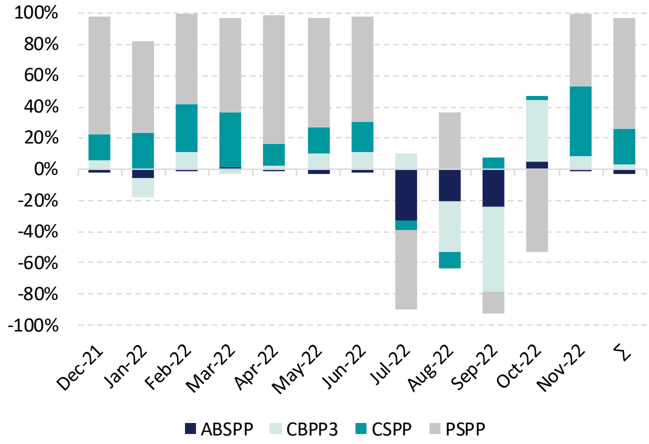
Source: ECB, NORD/LB Markets Strategy & Floor Research

NORD/LB

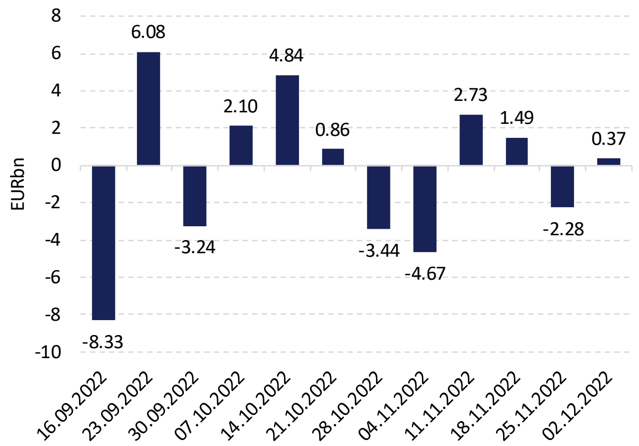
Portfolio development



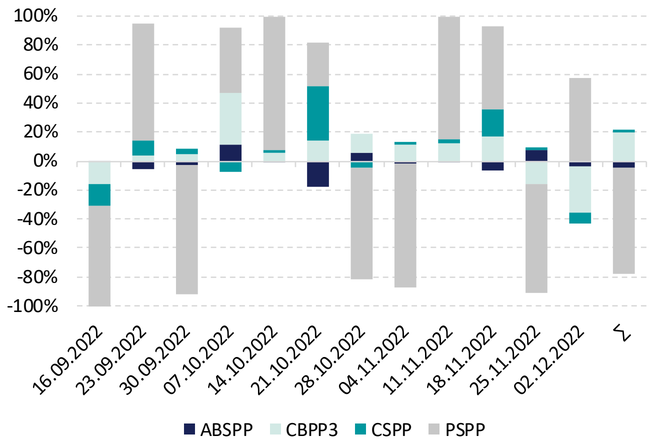
Distribution of monthly purchases



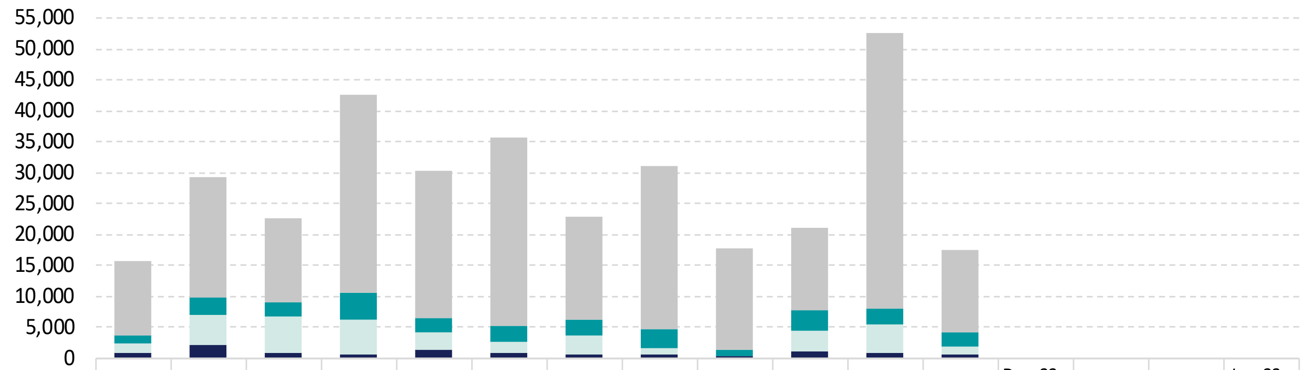
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

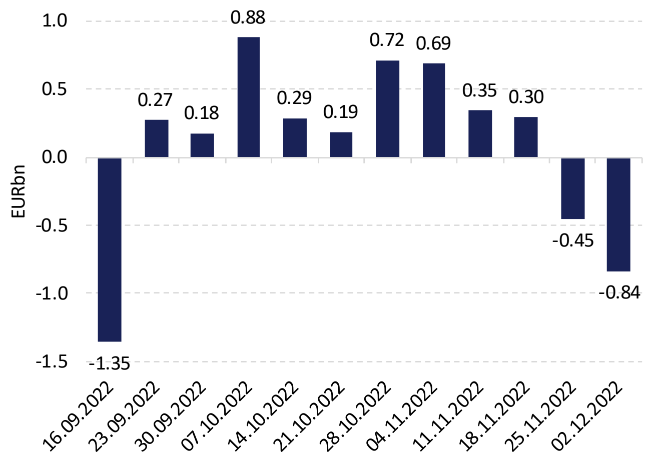


	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-22 - Nov-23	2021	2022	Jan-23 - Nov-23
APP	15,640	29,167	22,577	42,487	30,333	35,805	22,847	30,997	17,821	21,139	52,720	17,404	338,937	247,069	299,107	323,297
PSPP	12,016	19,469	13,624	31,961	23,792	30,556	16,619	26,296	16,445	13,316	44,729	13,245	262,068	188,494	228,585	250,052
CSPP	1,243	2,784	2,182	4,219	2,388	2,579	2,557	3,033	986	3,362	2,616	2,337	30,286	17,134	17,670	29,043
CBPP3	1,487	4,786	6,065	5,631	2,937	1,874	3,112	1,170	0	3,346	4,465	1,351	36,224	30,143	41,244	34,737
ABSPP	894	2,128	706	676	1,216	796	559	498	390	1,115	910	471	10,359	11,298	11,608	9,465

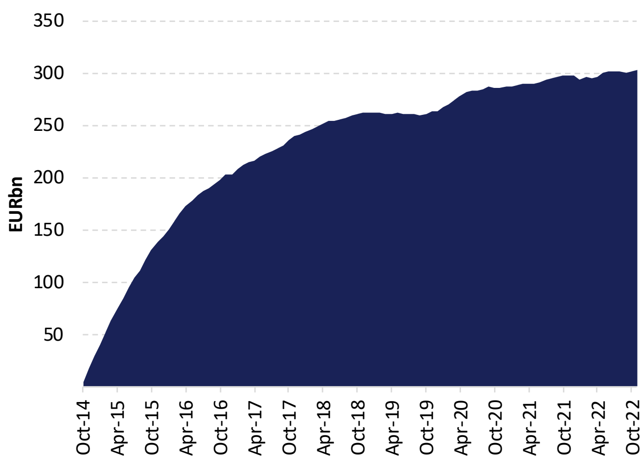
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

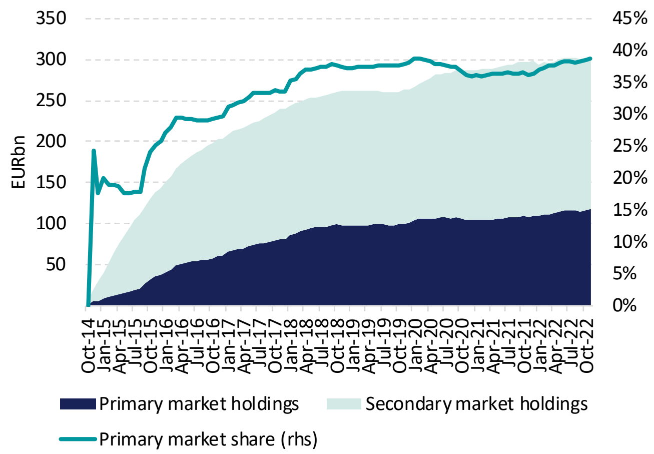
Weekly purchases



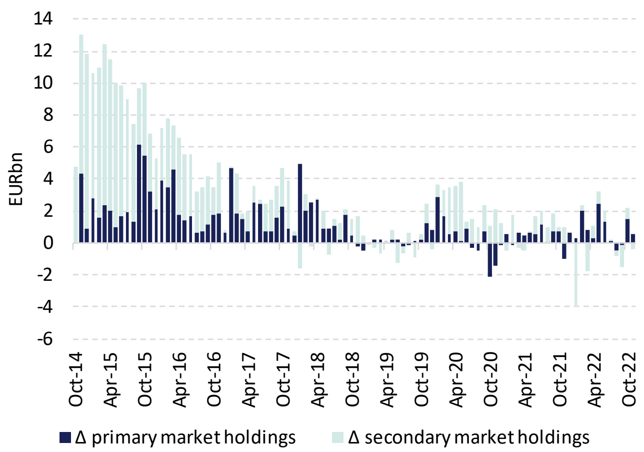
Development of CBPP3 volume



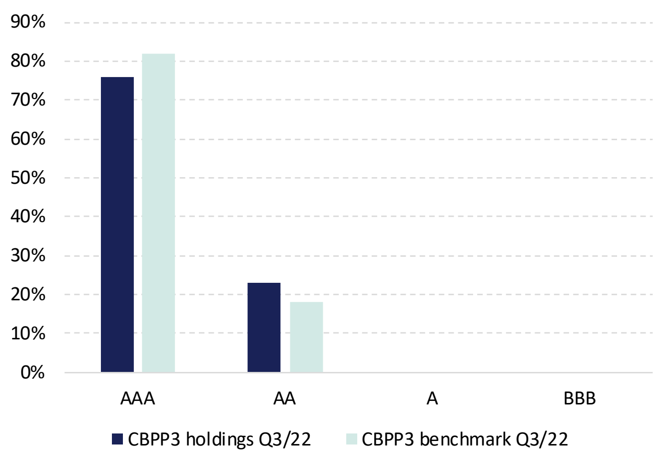
Primary and secondary market holdings



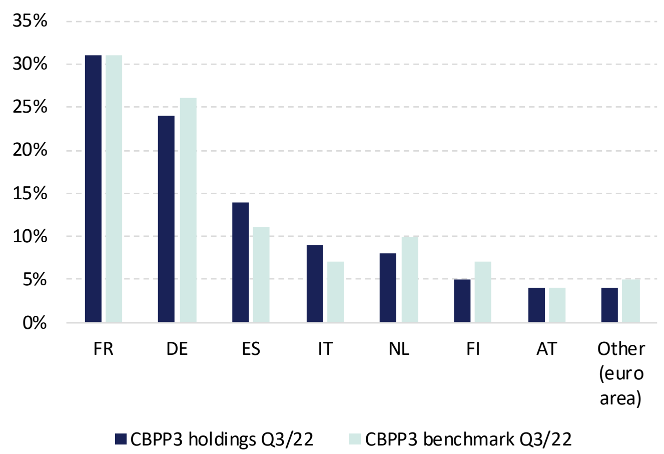
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



Distribution of CBPP3 by country of risk

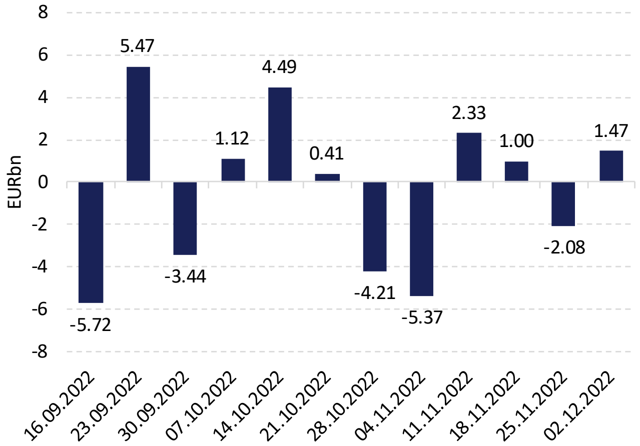


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

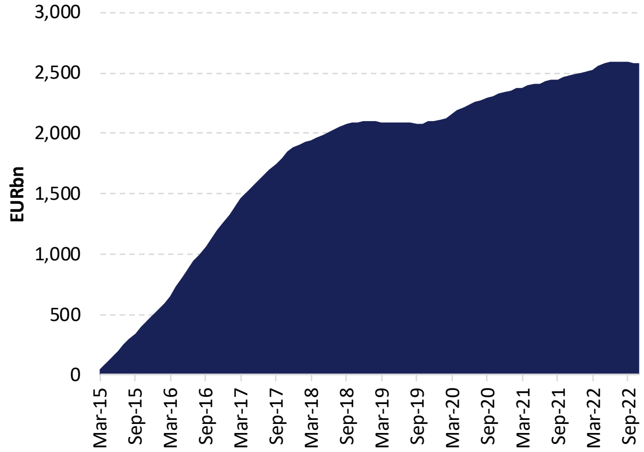
NORD/LB

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



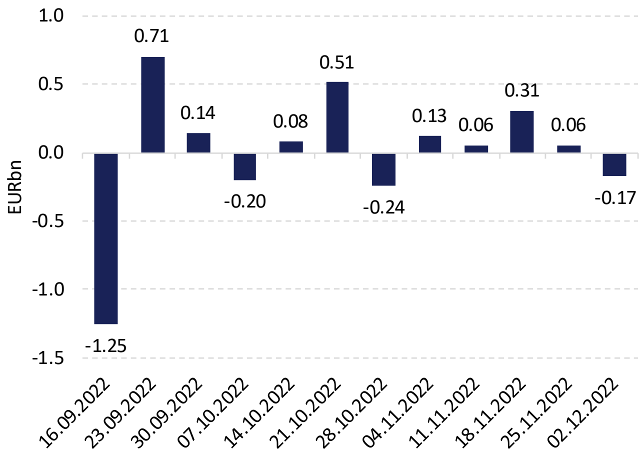
Overall distribution of PSPP buying at month-end

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%	74,794	74,046	748	7.6	8.4	-0.9
BE	3.4%	94,058	92,168	1,890	7.3	10.4	-3.1
CY	0.2%	4,483	5,444	-961	8.4	8.9	-0.6
DE	24.3%	668,299	666,903	1,396	6.7	8.0	-1.3
EE	0.3%	531	7,126	-6,595	7.9	8.5	-0.6
ES	11.0%	315,704	301,673	14,031	7.7	8.2	-0.5
FI	1.7%	44,102	46,470	-2,368	8.1	8.9	-0.8
FR	18.8%	532,243	516,702	15,541	6.8	8.6	-1.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	42,708	42,840	-132	8.4	10.2	-1.8
IT	15.7%	445,698	429,782	15,916	7.2	8.0	-0.8
LT	0.5%	5,992	14,642	-8,650	10.1	9.7	0.4
LU	0.3%	3,942	8,333	-4,391	5.7	7.6	-1.9
LV	0.4%	3,900	9,858	-5,958	8.7	8.6	0.1
MT	0.1%	1,432	2,653	-1,221	11.1	9.6	1.5
NL	5.4%	133,747	148,259	-14,512	7.7	9.4	-1.7
PT	2.2%	53,853	59,211	-5,358	7.5	7.9	-0.4
SI	0.4%	11,177	12,181	-1,004	9.3	9.4	-0.1
SK	1.1%	18,570	28,973	-10,403	7.8	8.5	-0.8
SNAT	10.0%	286,168	274,140	12,028	8.2	9.5	-1.3
Total / Avg.	**100.0%**	**2,741,404**	**2,741,404**	**0**	**7.3**	**8.5**	**-1.3**

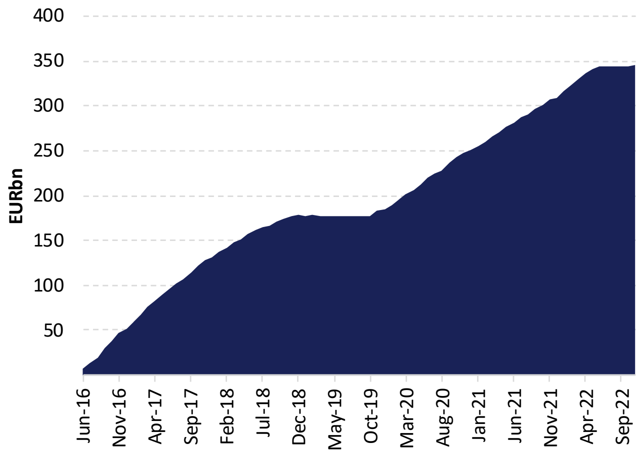
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of PSPP portfolio holdings
[4] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP
Source: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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

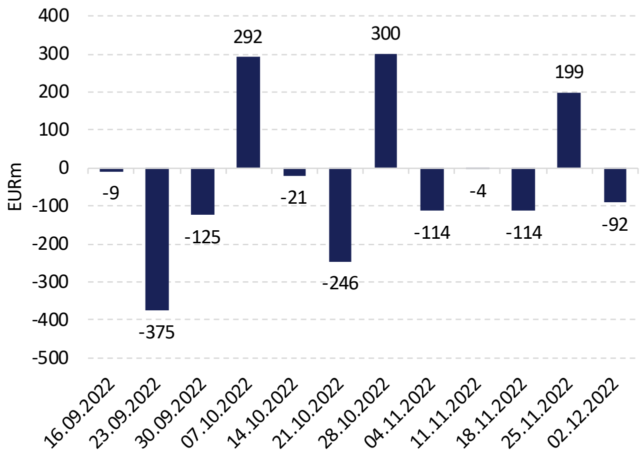


Development of CSPP volume

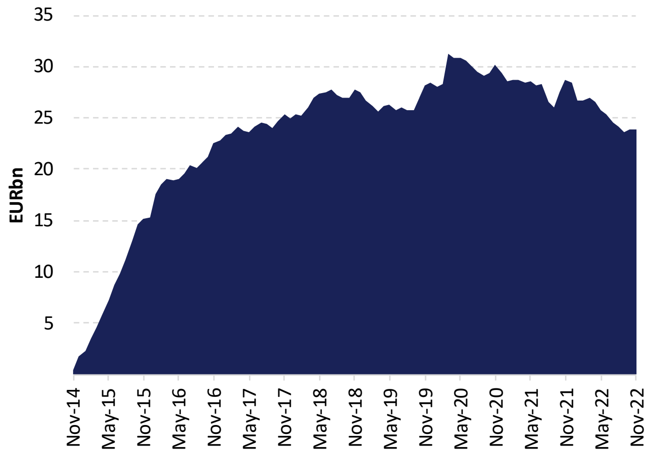


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



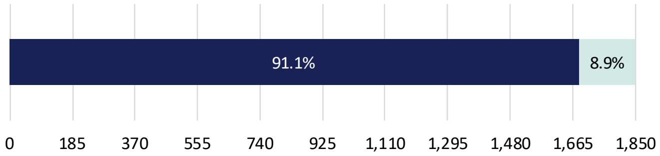
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

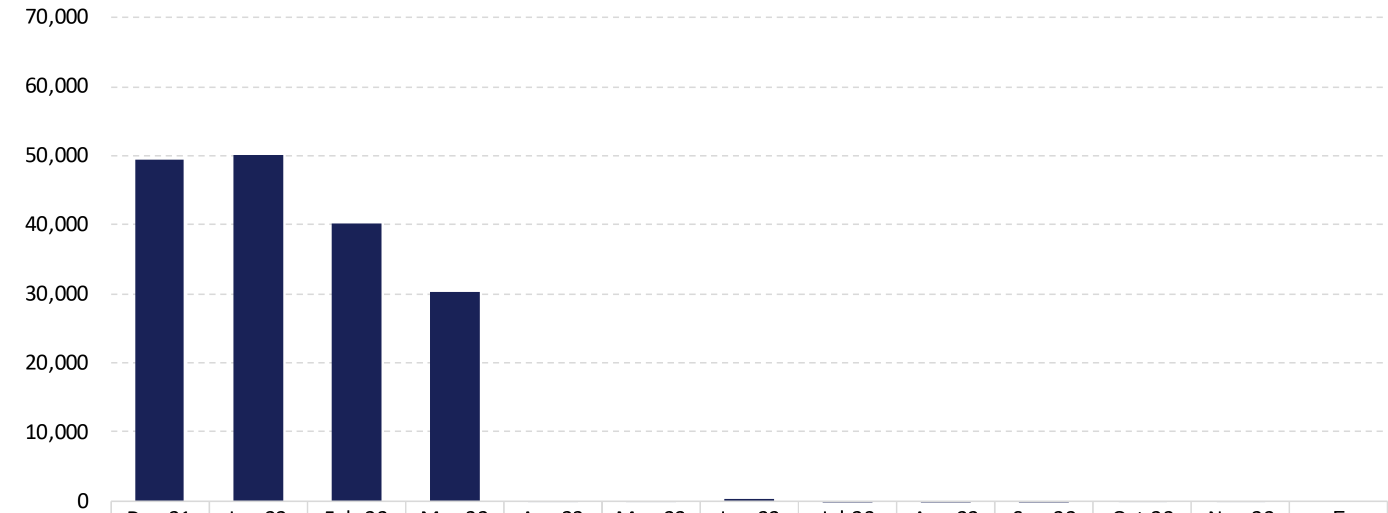
Holdings (in EURm)

	PEPP
Oct-22	1,712,889
Nov-22	1,712,753
Δ (net purchases)	-136

Invested share of PEPP envelope (in EURbn)

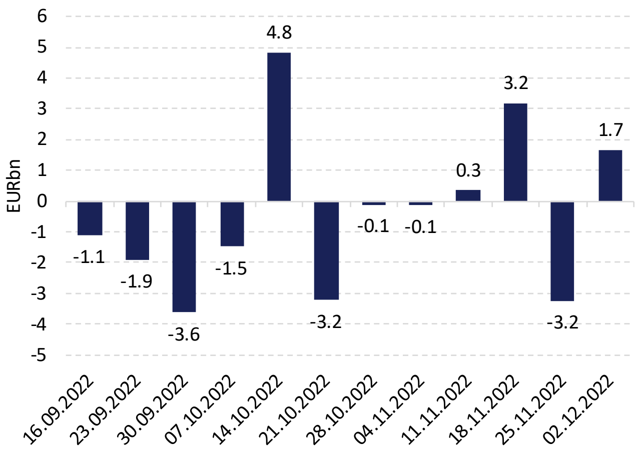


Monthly net purchases (in EURm)

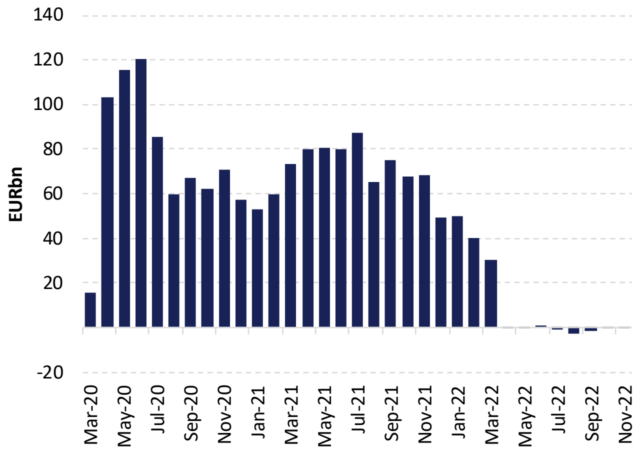


	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	∑
PEPP	49,375	50,113	40,184	30,214	-4	-10	12	-722	-2,813	-1,505	-146	-136	164,562

Weekly purchases



Development of PEPP volume



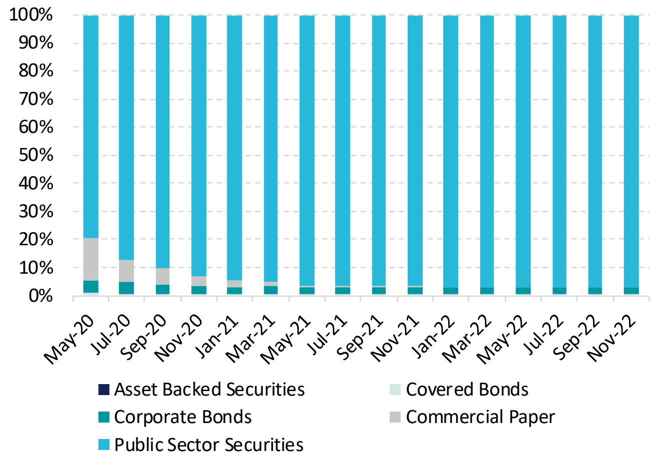
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

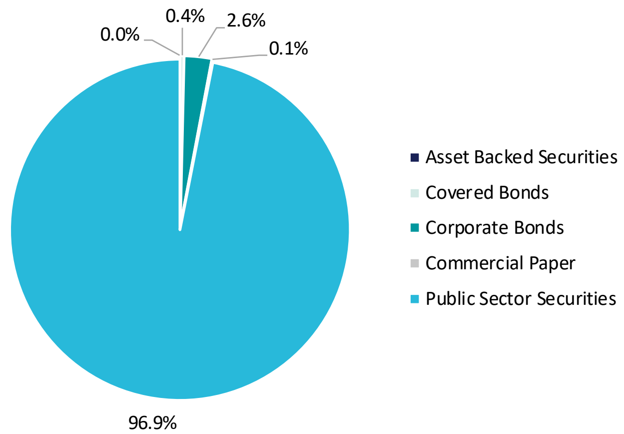
NORD/LB

Holdings under the PEPP (in EURm)

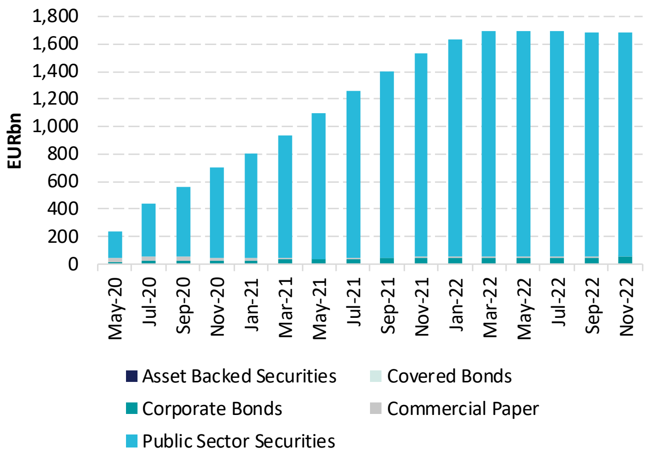
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Sep-22	0	6,056	43,233	2,871	1,631,176	1,683,336
Nov-22	0	6,056	44,012	2,091	1,630,895	1,683,054
Δ (net purchases)	0	0	+780	-780	-281	-282

Portfolio structure

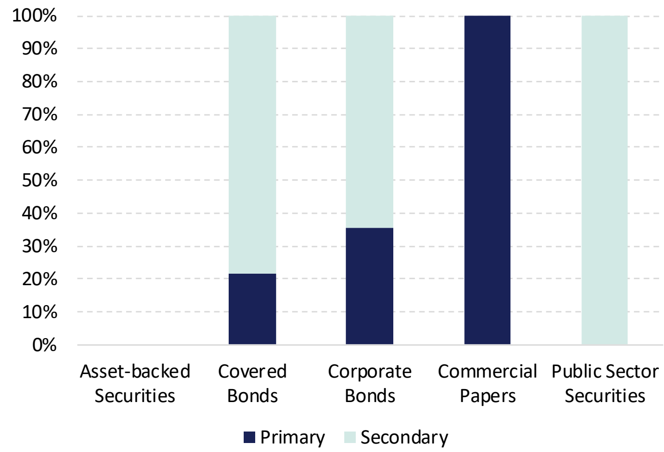




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

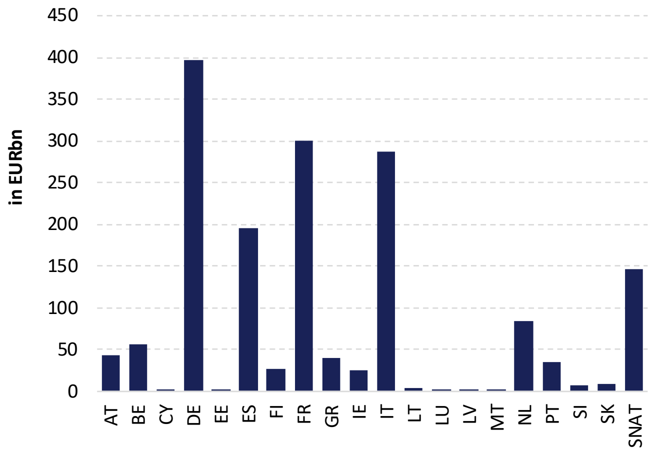
Sep-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,758	15,407	27,826	2,873	0
Share	0.0%	0.0%	21.4%	78.6%	35.6%	64.4%	100.0%	0.0%

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

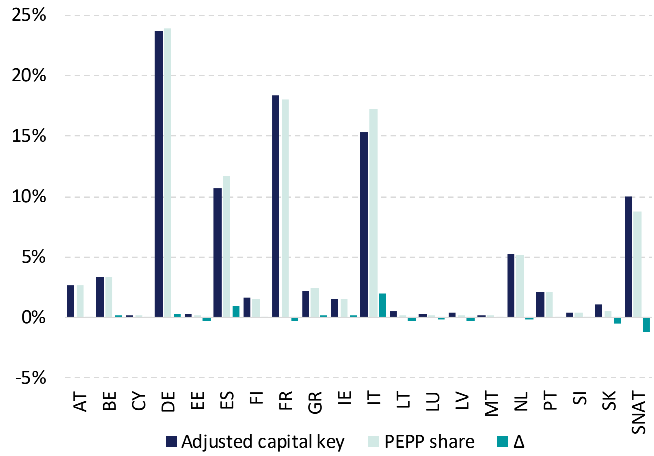
Breakdown of public sector securities under the PEPP

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	43,449	2.6%	2.6%	0.0%	7.7	7.3	0.3
BE	56,175	3.3%	3.4%	0.1%	6.4	9.5	-3.1
CY	2,487	0.2%	0.1%	0.0%	8.4	8.3	0.2
DE	397,704	23.7%	24.0%	0.2%	6.8	6.8	0.0
EE	256	0.3%	0.0%	-0.2%	7.5	7.5	0.1
ES	194,758	10.7%	11.7%	1.0%	7.4	7.4	0.0
FI	26,208	1.7%	1.6%	-0.1%	7.6	7.7	-0.1
FR	299,751	18.4%	18.1%	-0.3%	7.8	7.7	0.0
GR	39,607	2.2%	2.4%	0.2%	8.2	9.6	-1.4
IE	25,825	1.5%	1.6%	0.0%	8.8	9.7	-0.9
IT	287,027	15.3%	17.3%	2.0%	7.2	6.9	0.4
LT	3,222	0.5%	0.2%	-0.3%	9.7	8.9	0.8
LU	1,898	0.3%	0.1%	-0.2%	6.0	6.7	-0.7
LV	1,890	0.4%	0.1%	-0.2%	8.1	7.7	0.4
MT	606	0.1%	0.0%	-0.1%	10.6	8.8	1.8
NL	84,558	5.3%	5.1%	-0.2%	7.7	8.6	-0.9
PT	34,425	2.1%	2.1%	0.0%	6.8	7.2	-0.5
SI	6,586	0.4%	0.4%	0.0%	8.7	9.1	-0.4
SK	7,966	1.0%	0.5%	-0.6%	8.3	7.9	0.4
SNAT	145,915	10.0%	8.8%	-1.2%	10.4	8.8	1.6
Total / Avg.	**1,660,313**	**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



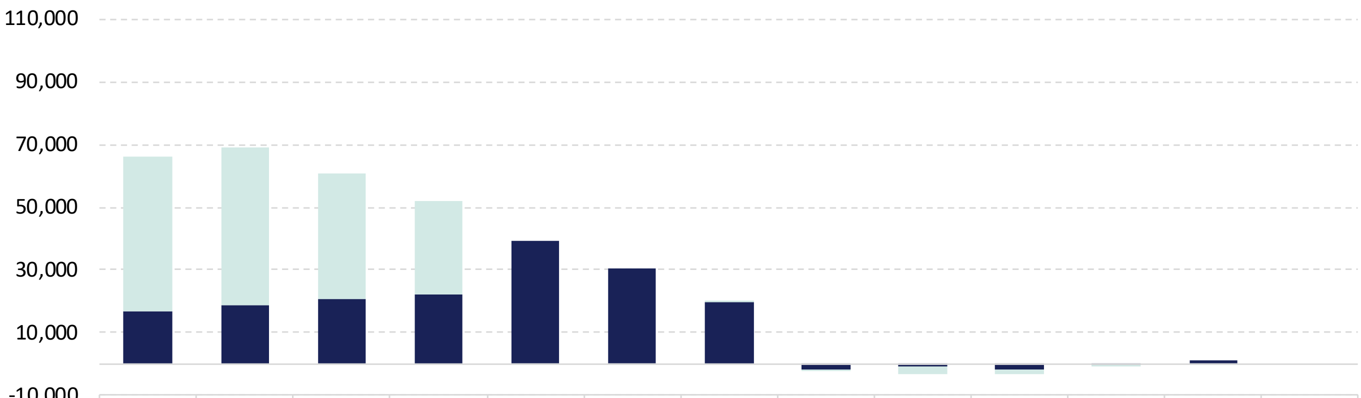
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Current WAM of public sector securities holdings under the PEPP [4] WAM of eligible universe of public sector securities holdings under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy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

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

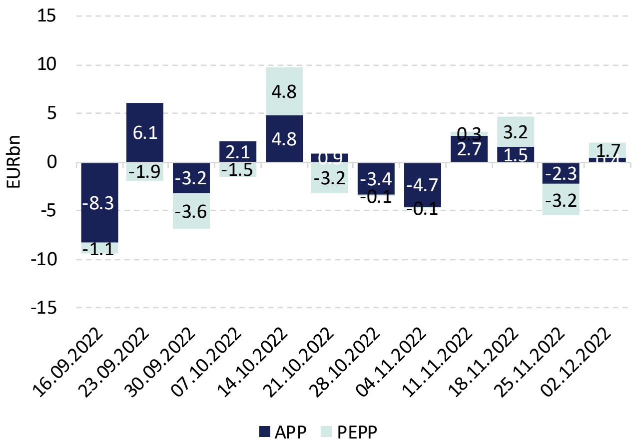
	APP	PEPP	APP & PEPP
Oct-22	3,255,936	1,712,889	4,968,825
Nov-22	3,257,080	1,712,753	4,969,833
Δ	+1,145	-136	+1,009

Monthly net purchases (in EURm)

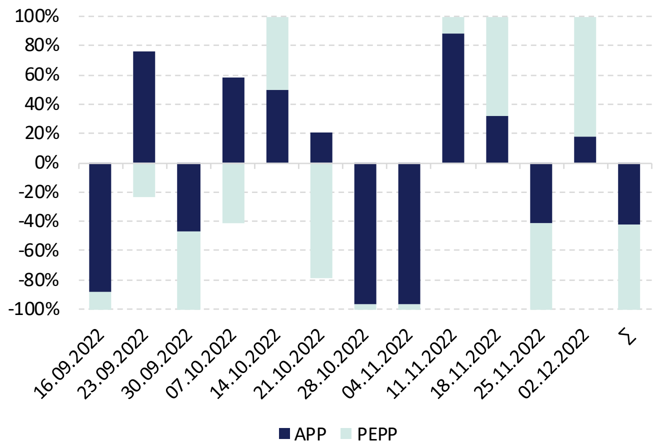


	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	∑
∑	65,971	68,951	60,882	52,143	39,393	30,222	19,734	-2,481	-3,469	-3,389	-466	1,009	328,500
PEPP	49,375	50,113	40,184	30,214	-4	-10	12	-722	-2,813	-1,505	-146	-136	164,562
APP	16,596	18,838	20,698	21,929	39,397	30,232	19,722	-1,759	-656	-1,884	-320	1,145	163,938

Weekly purchases



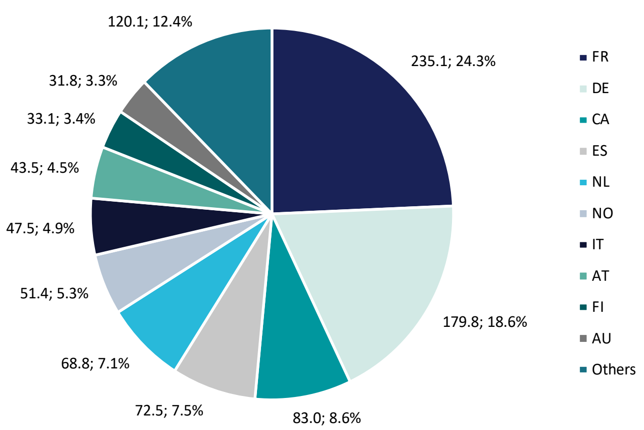
Distribution of weekly purchases



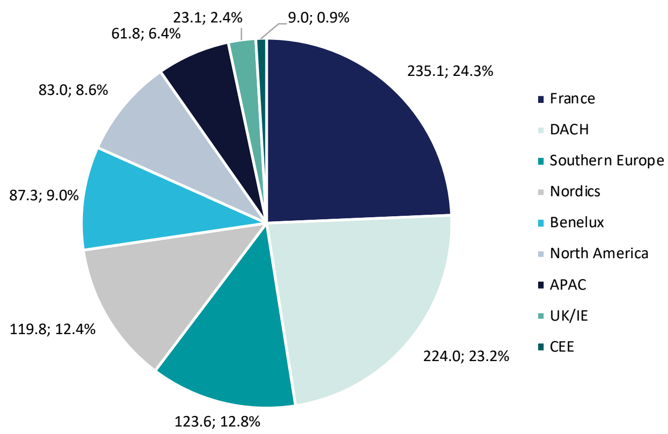
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



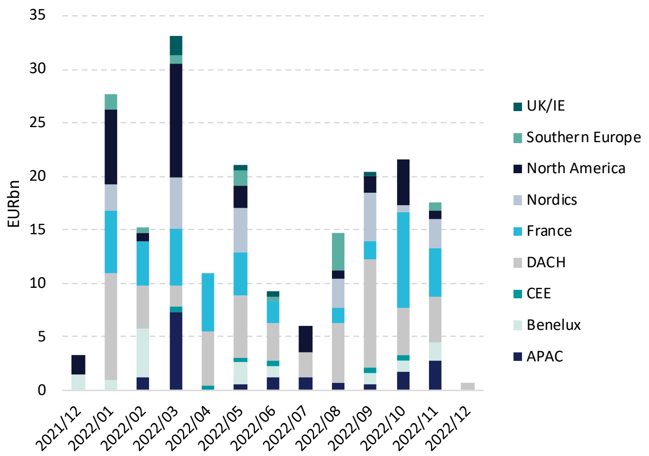
EUR benchmark volume by region (in EURbn)



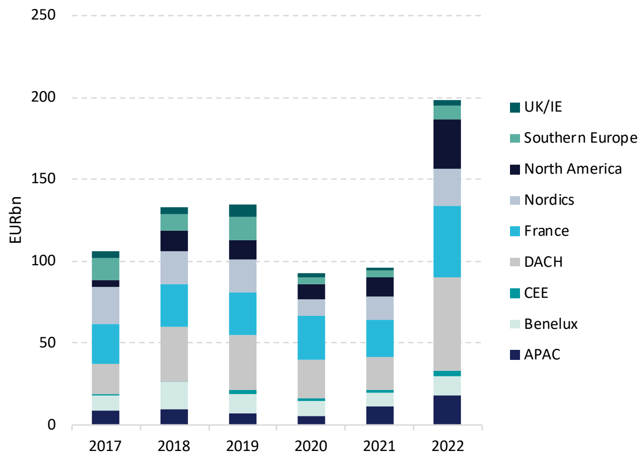
Top-10 jurisdictions

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	235.1	227	15	0.95	9.8	5.3	0.97
2	DE	179.8	256	26	0.65	8.3	4.5	0.68
3	CA	83.0	64	0	1.26	5.6	2.9	0.53
4	ES	72.5	58	5	1.14	11.6	3.6	1.77
5	NL	68.8	70	1	0.92	11.3	7.1	0.81
6	NO	51.4	61	11	0.84	7.2	3.7	0.53
7	IT	47.5	58	2	0.79	9.2	3.8	1.24
8	AT	43.5	77	3	0.56	9.1	5.7	0.83
9	FI	33.1	35	3	0.94	7.3	3.8	0.75
10	AU	31.8	32	0	0.99	7.8	4.0	1.14

EUR benchmark issue volume by month

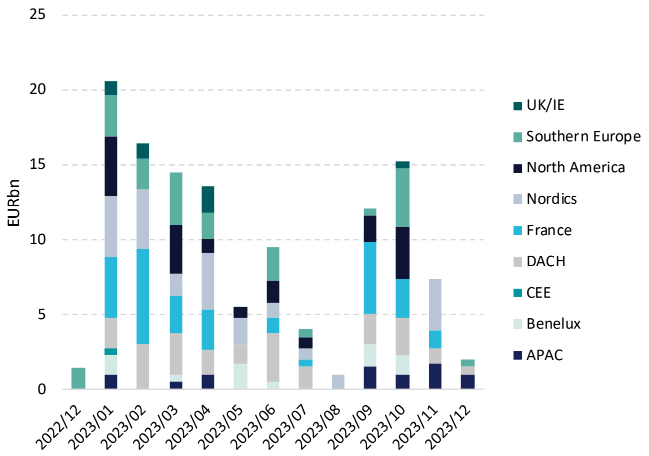


EUR benchmark issue volume by year

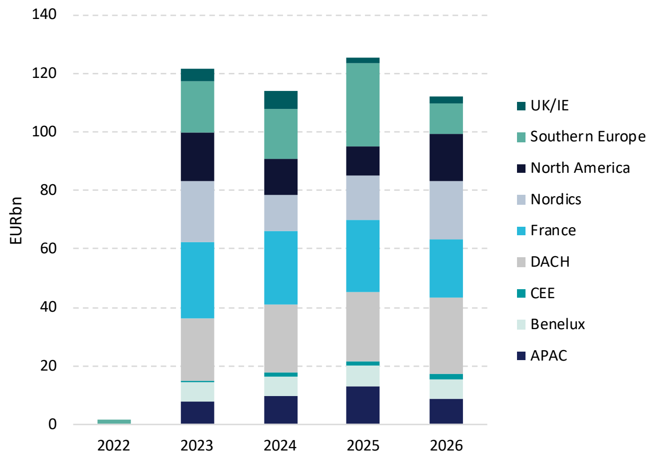


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

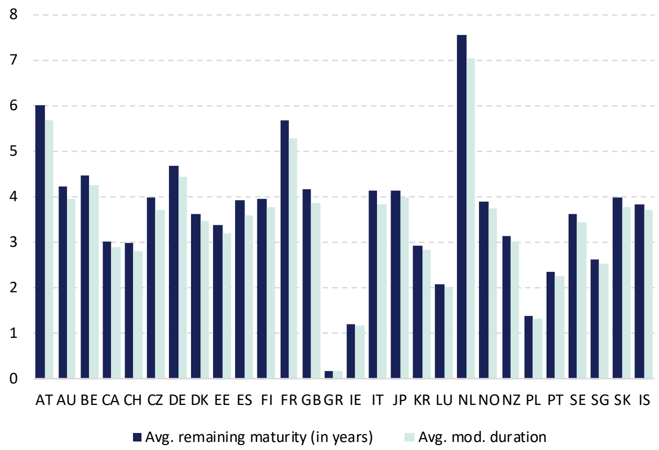
EUR benchmark maturities by month



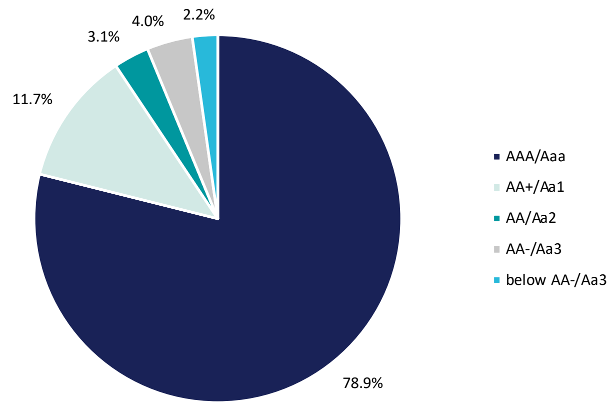
EUR benchmark maturities by year



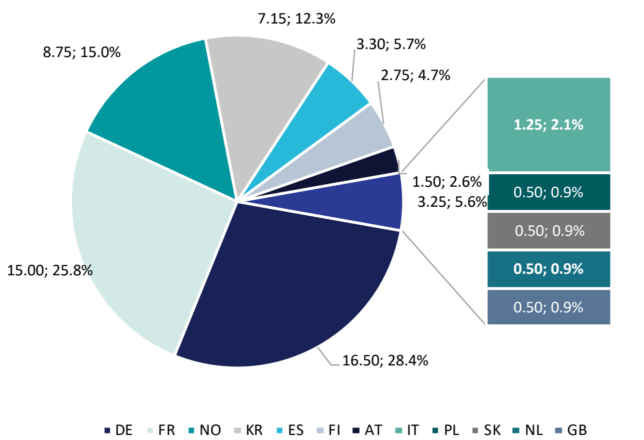
Modified duration and time to maturity by country



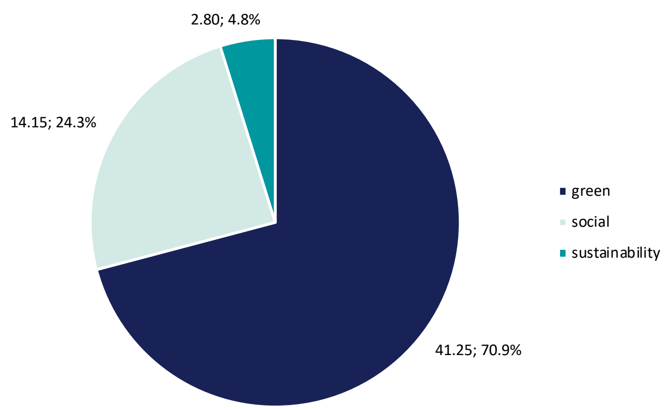
Rating distribution (volume weighted)



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

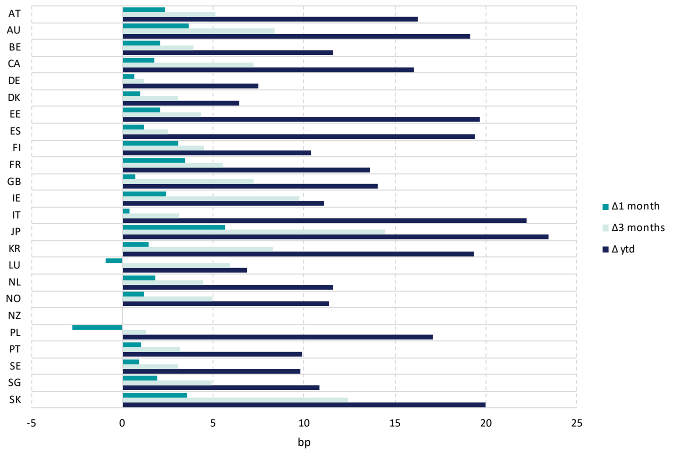


EUR benchmark volume (ESG) by type (in EURbn)

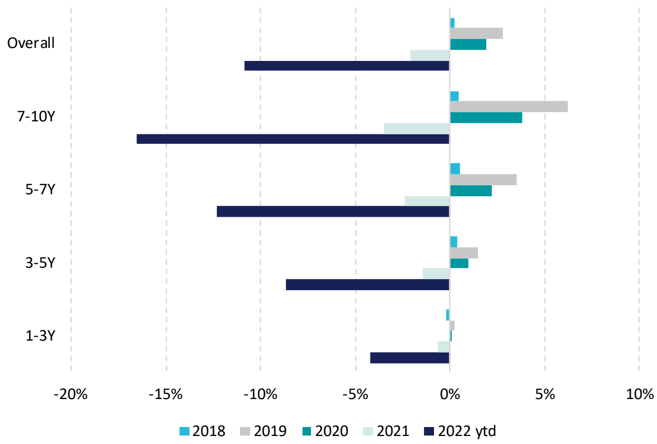


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

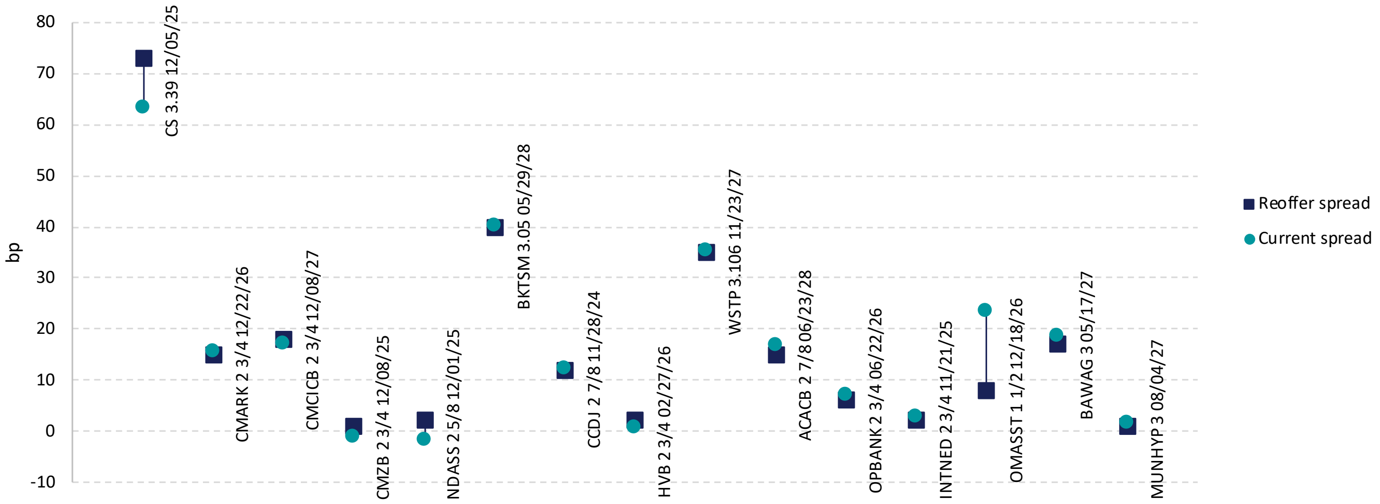
Spread development by country



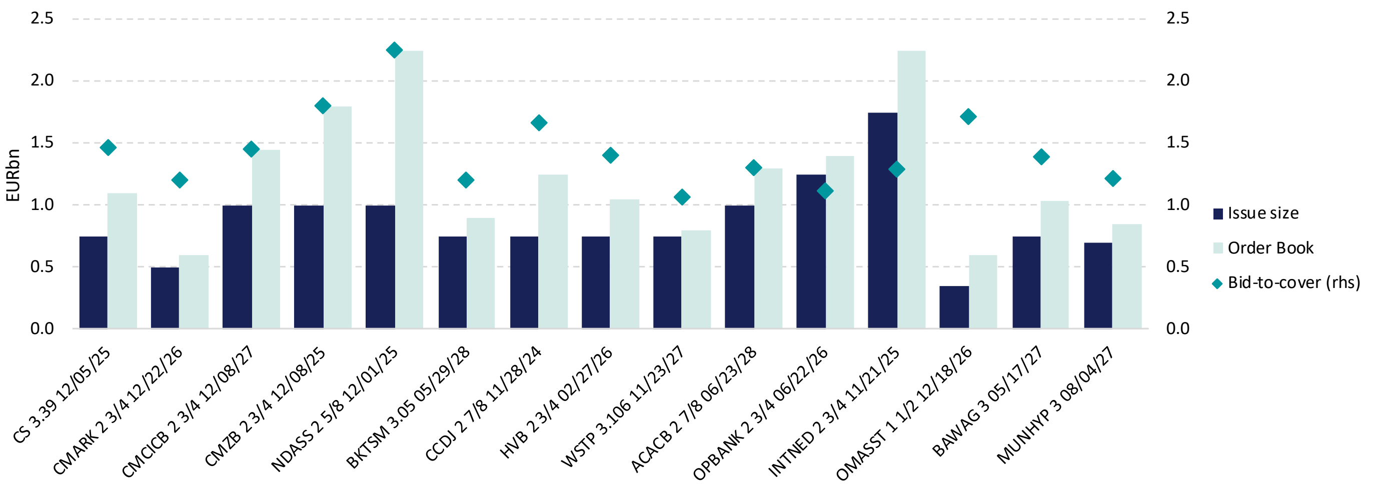
Covered bond performance (Total return)



Spread development (last 15 issues)



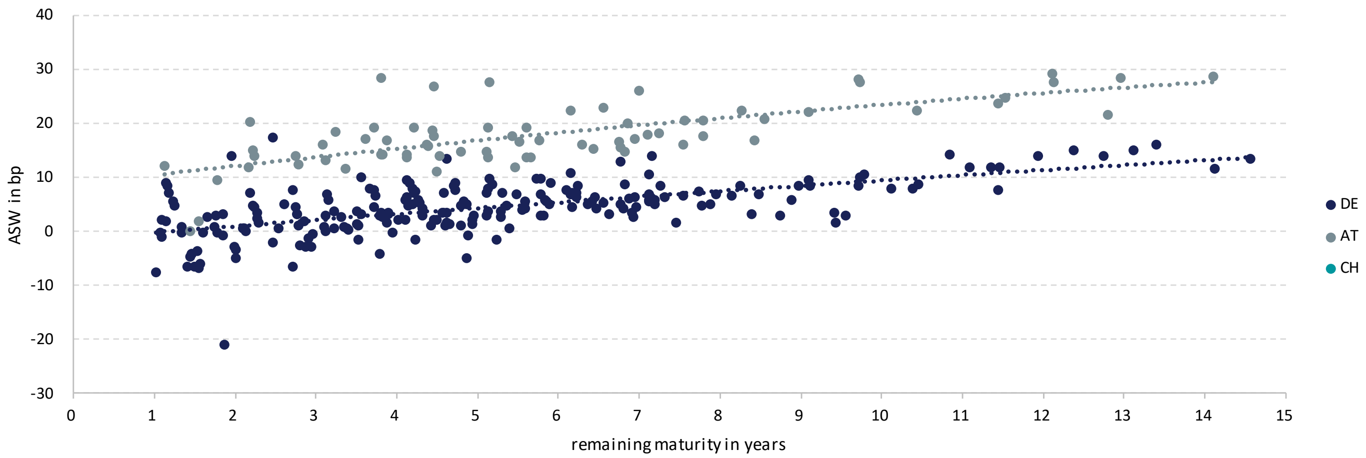
Order books (last 15 issues)



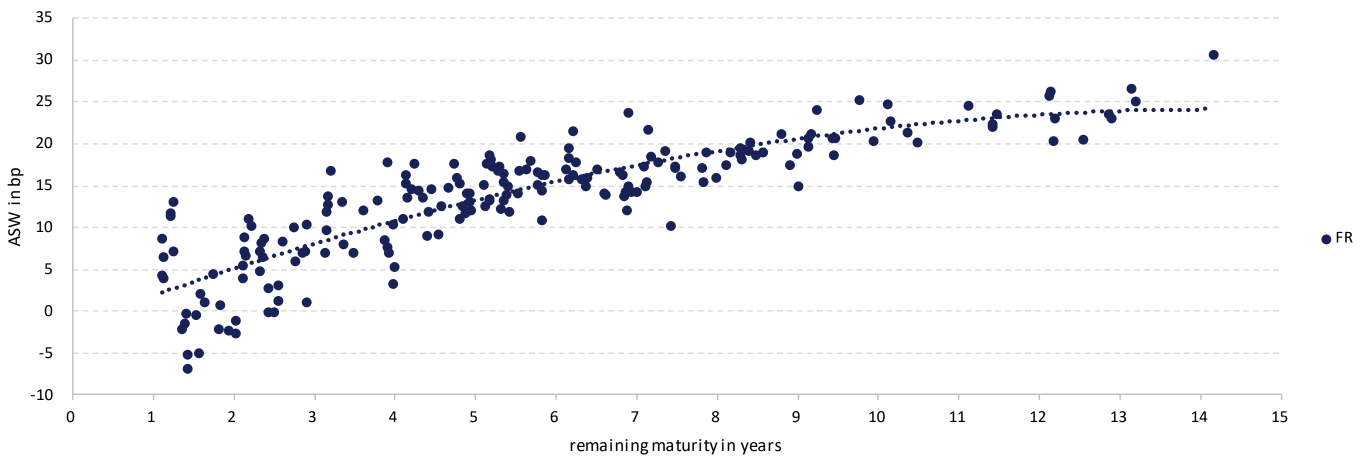
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

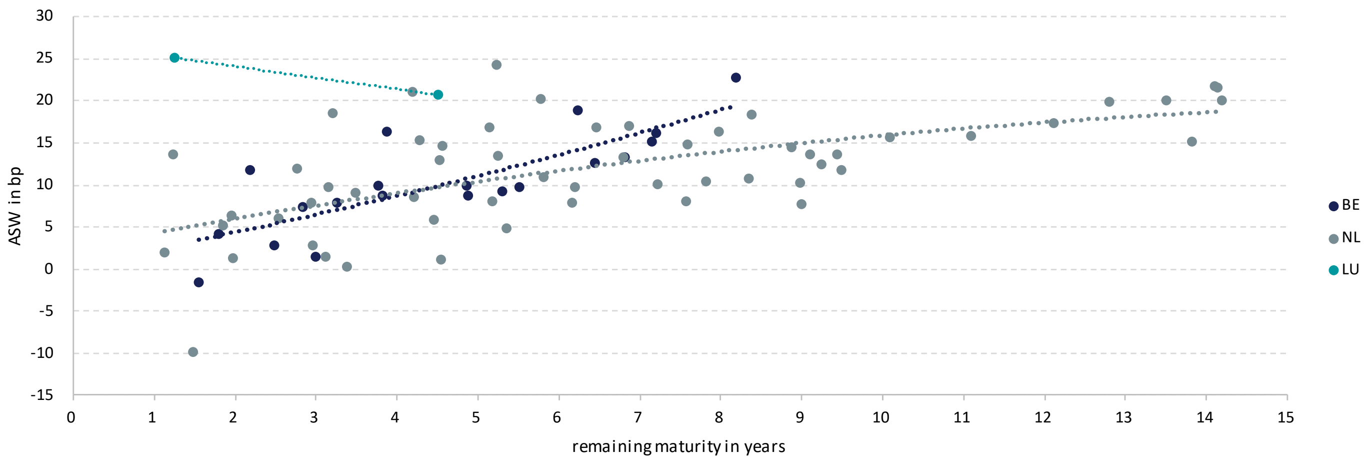
DACH



France

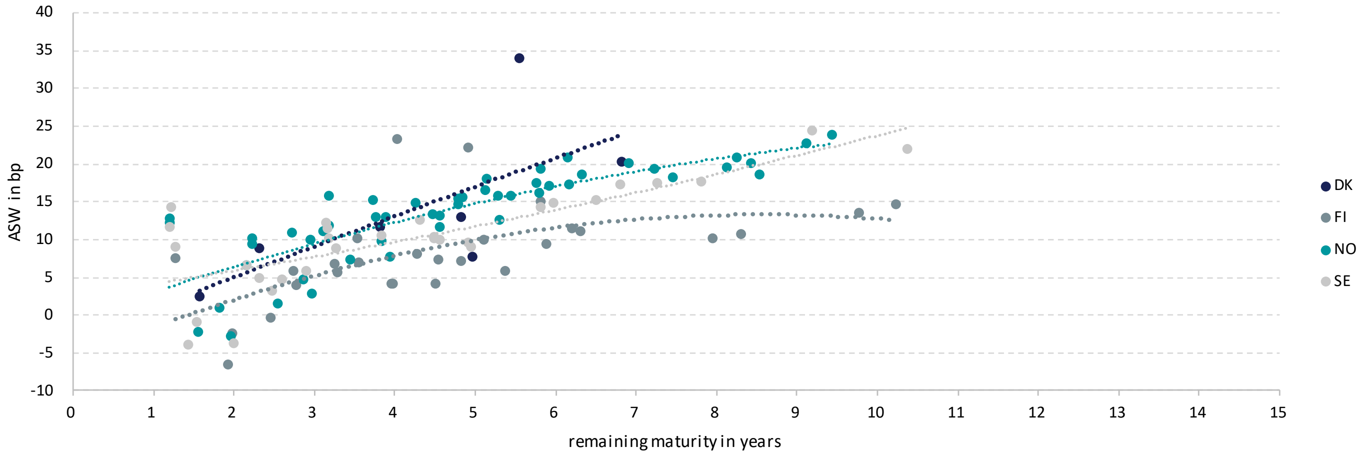


Benelux

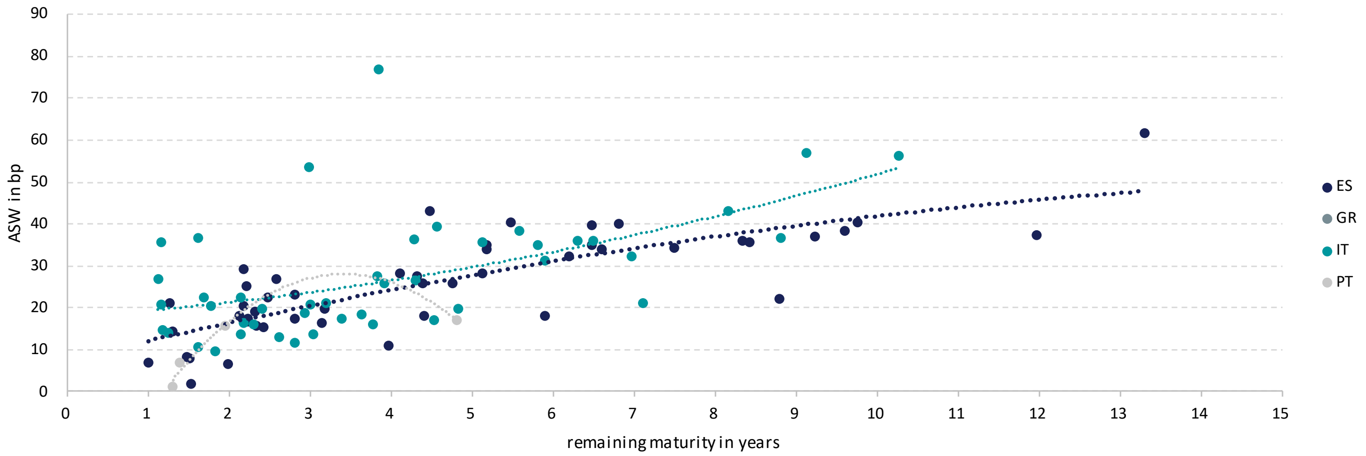


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

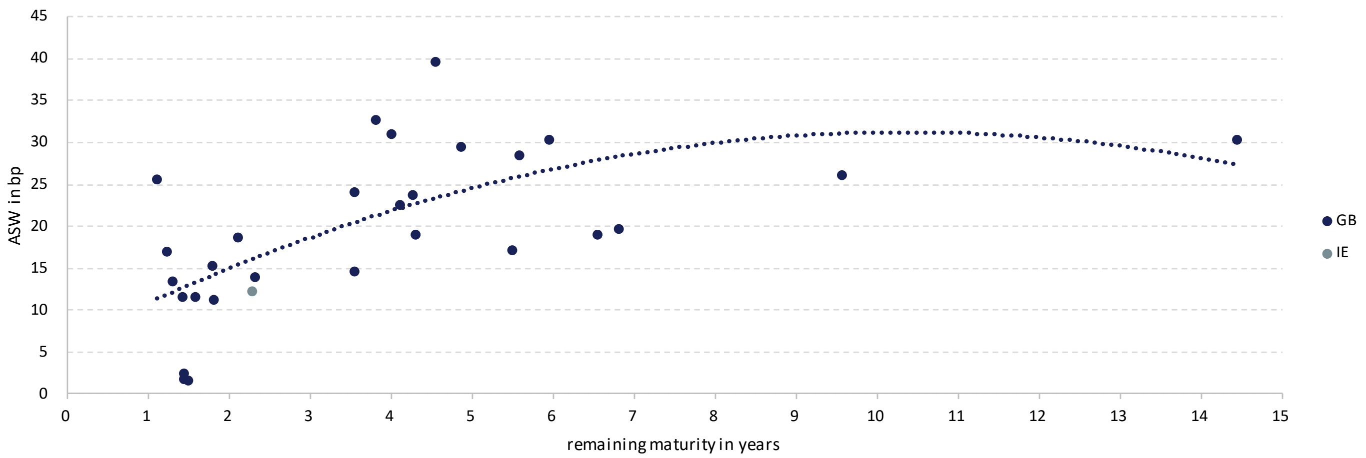
Nordics



Southern Europe

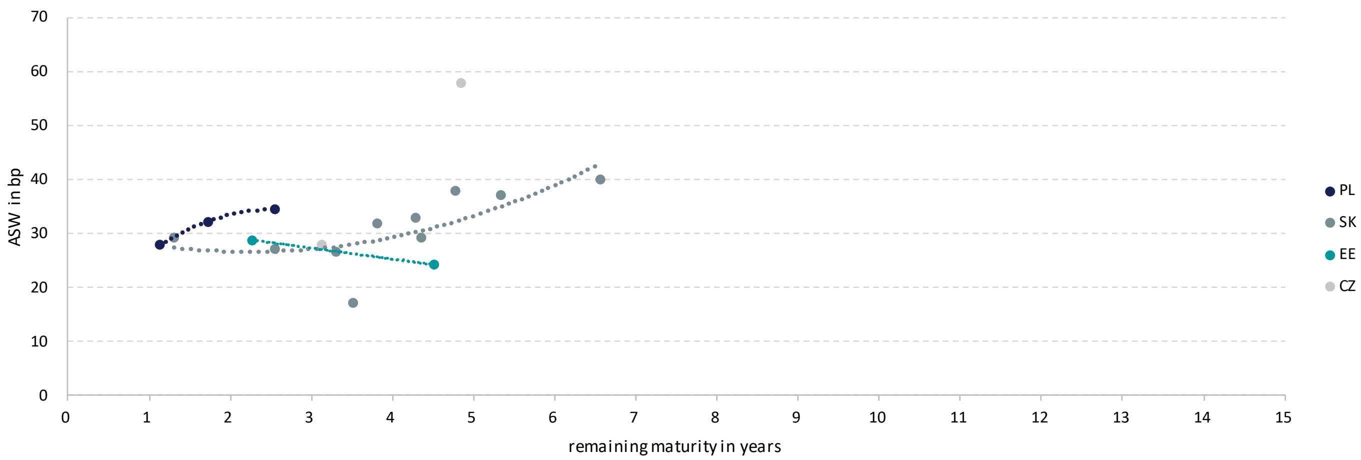


UK/IE

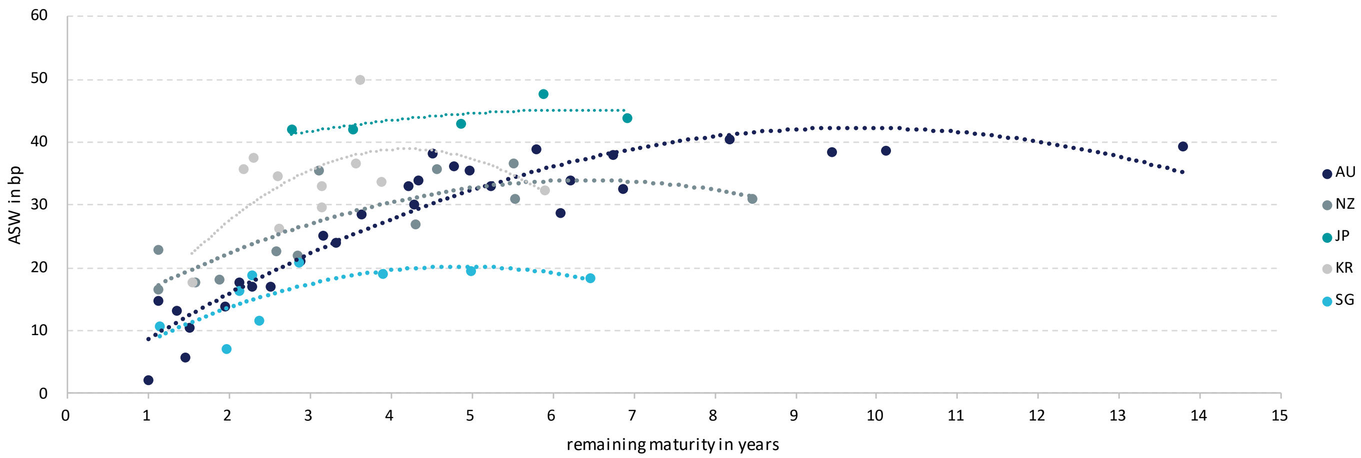


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

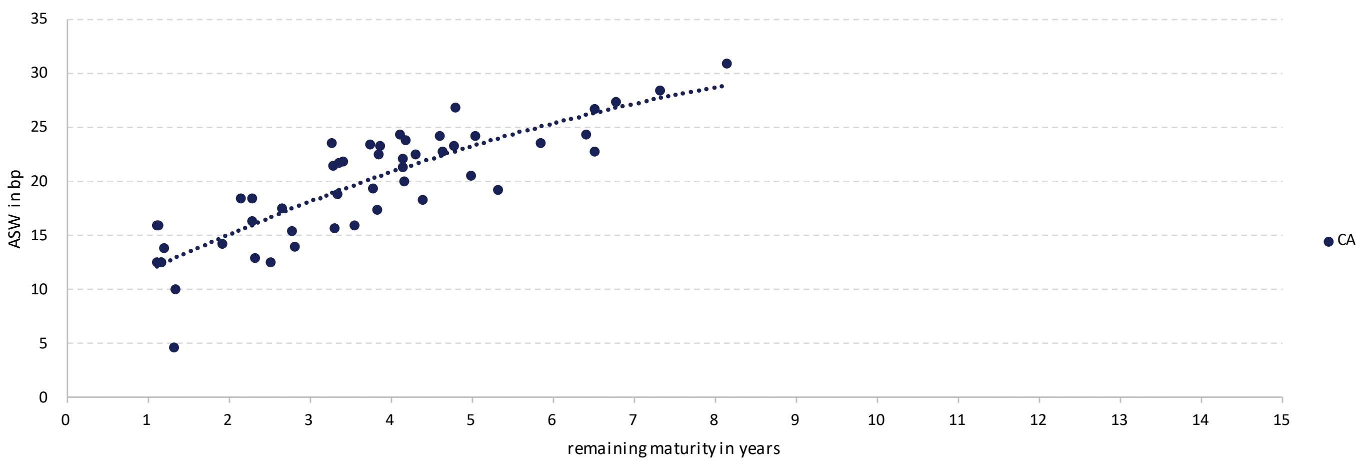
CEE



APAC



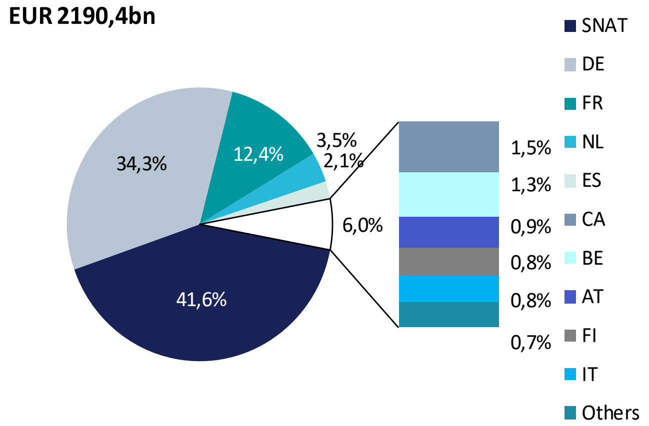
North America



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

Charts & Figures
SSA/Public Issuers

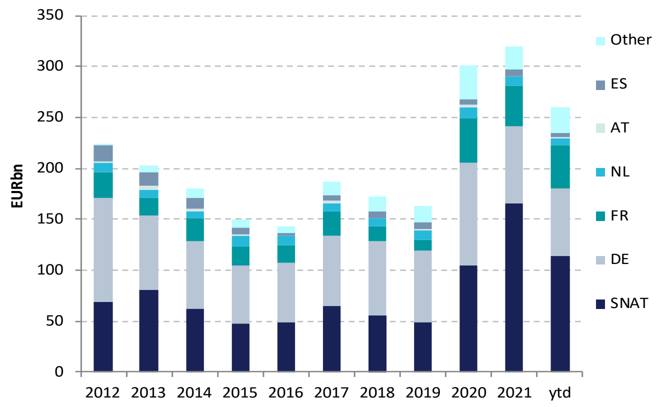
Outstanding volume (bmk)



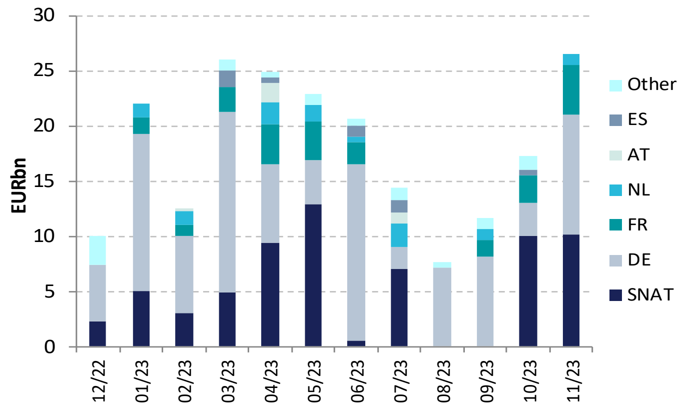
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	912.1	218	4,2	8,3
DE	752,3	559	1,3	6,4
FR	271,6	180	1,5	6.4
NL	77,2	69	1,1	6,6
ES	45,6	60	0,8	4,8
CA	32,6	23	1,4	4,6
BE	28.0	31	0,9	12,0
AT	19,8	23	0,9	4,6
FI	18,5	22	0,8	5.5
IT	16.8	20	0,8	5.0

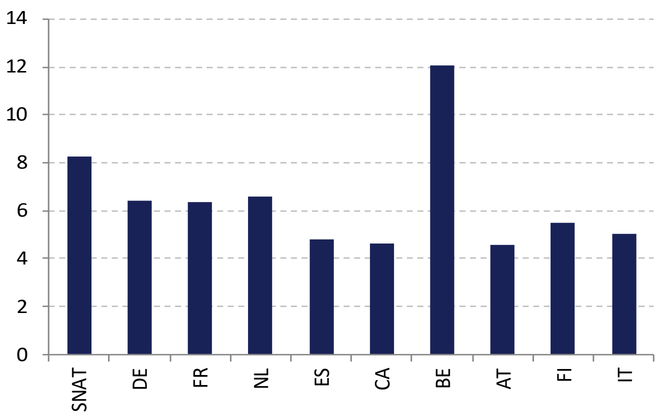
Issue volume by year (bmk)



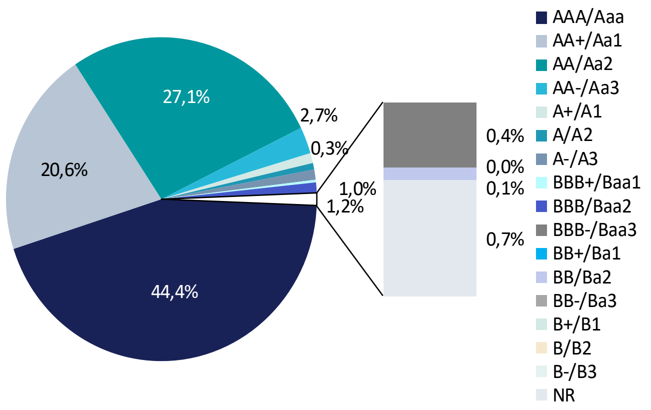
Maturities next 12 months (bmk)



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

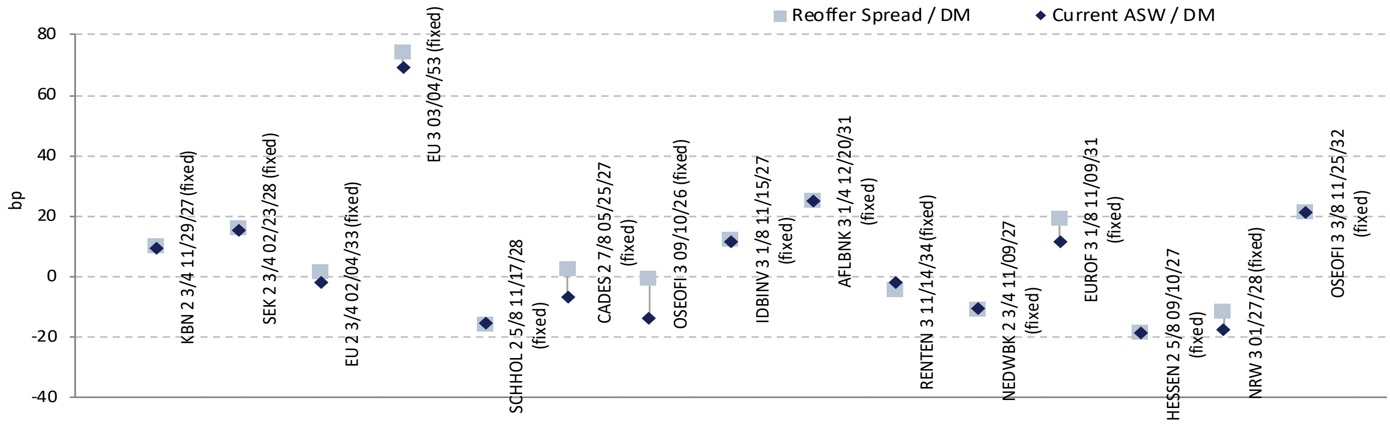


Rating distribution (vol. weighted)

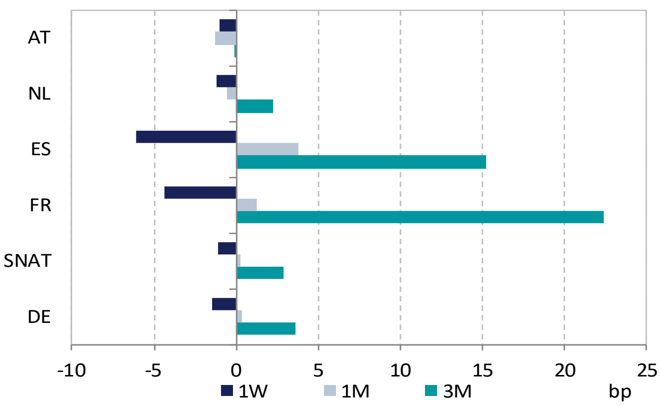


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

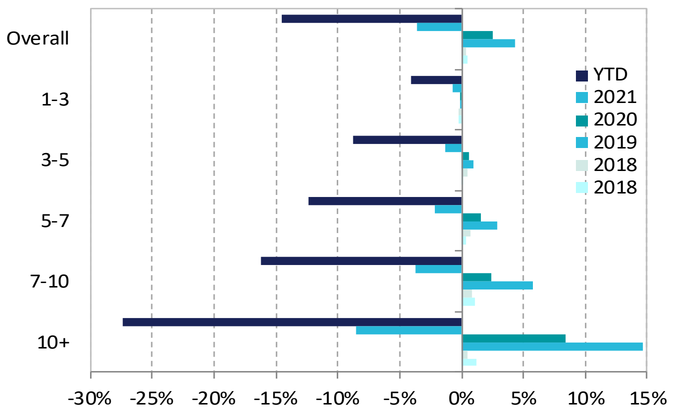
Spread development (last 15 issues)



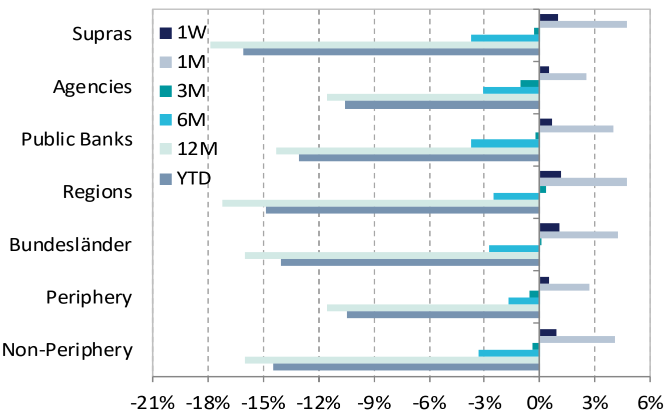
Spread development by country



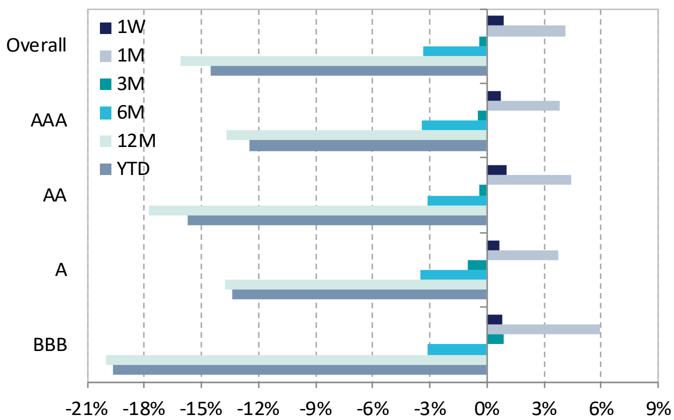
Performance (total return)



Performance (total return) by segments

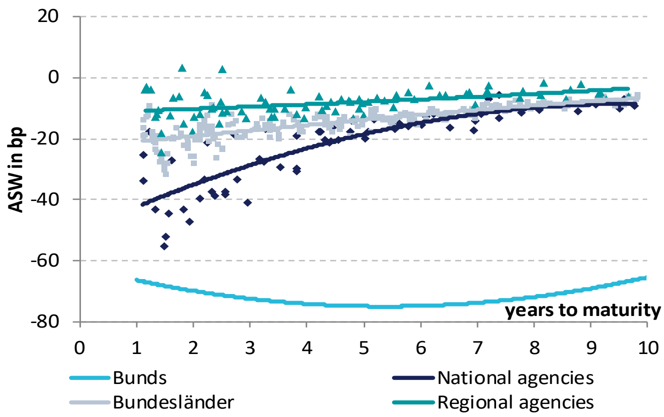


Performance (total return) by rating

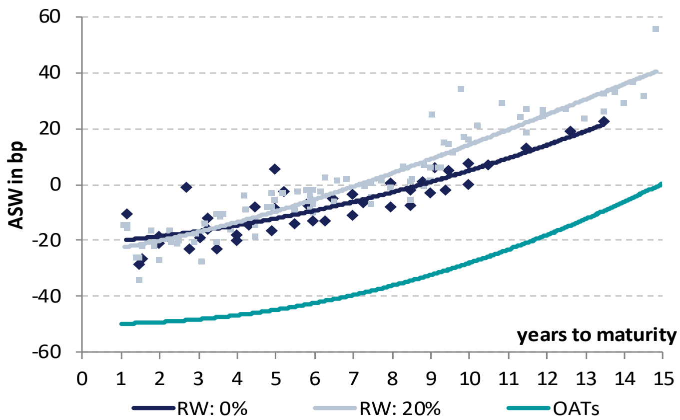


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

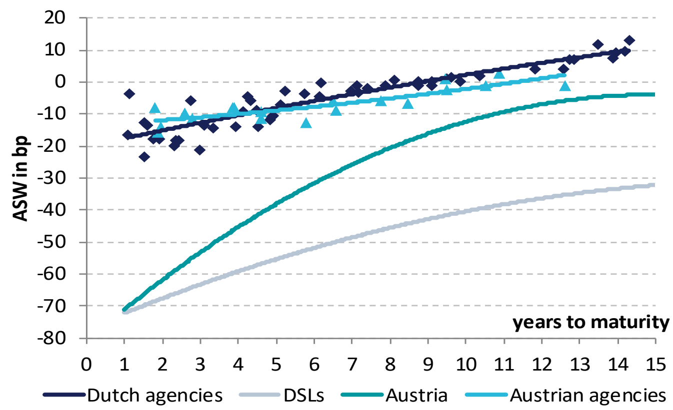
Germany (by segments)



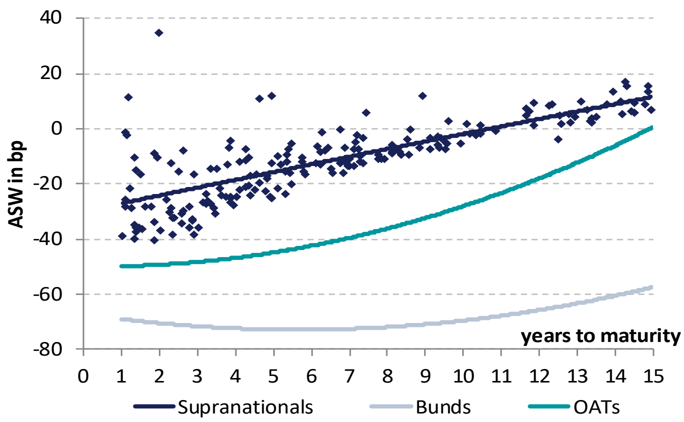
France (by risk weight)



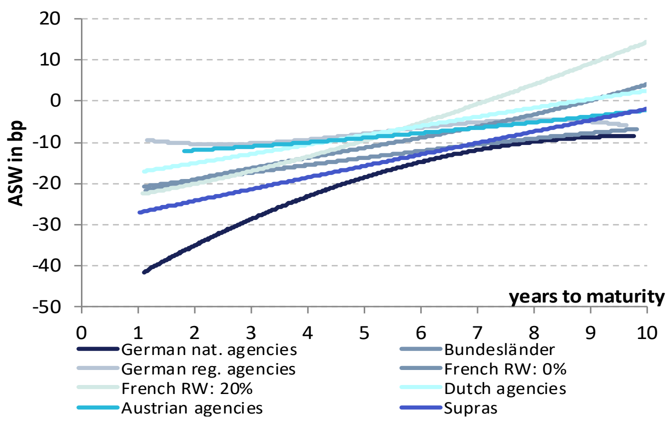
Netherlands & Austria



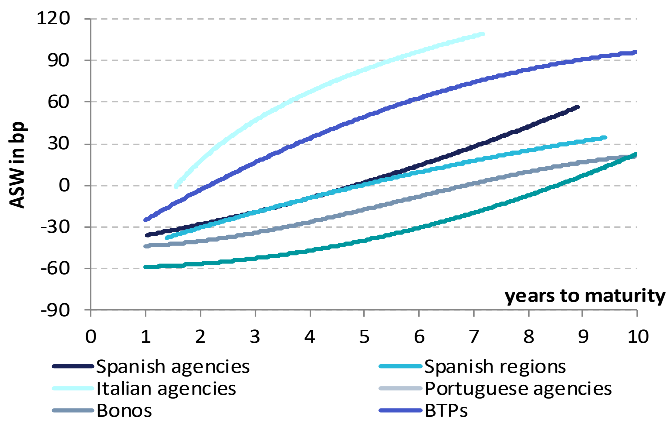
Supranationals



Core



Periphery



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

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
37/2022 ♦ 30 November	▪ Transparency requirements §28 PfandBG Q3 2022 ▪ ECB repo collateral rules and their implications for Supranationals & Agencies
36/2022 ♦ 23 November	▪ ESG covered bonds - another record year ▪ Current LCR classifications for our SSA coverage
35/2022 ♦ 16 November	▪ Covered bond jurisdictions in the spotlight: a look at Austria ▪ Development of the German property market ▪ EIB goes Blockchain… again!
34/2022 ♦ 09 November	▪ Covered bond jurisdictions in the spotlight: a look at Norway ▪ Tenth edition of the NORD/LB Issuer Guide Covered Bonds ▪ SSA primary stats ytd before the final sprint
33/2022 ♦ 26 October	▪ Repayment structures on the covered bond market: EU harmonisation project consigns hard bullets to the shadows ▪ The debt brake at Laender level
32/2022 ♦ 19 October	▪ ECB preview: +75bp and the balance sheet question ▪ EBA Risk Dashboard paints a robust picture in Q2 2022 ▪ An overview of the German Laender
31/2022 ♦ 12 October	▪ The covered bond rating approach of S&P ▪ Benchmark indices for German Laender
30/2022 ♦ 28 September	▪ Focus on covered bond jurisdictions: Singapore in the spotlight ▪ German Laender: more ESG issues on the horizon?
29/2022 ♦ 21 September	▪ ECBC publishes annual statistics for 2021 ▪ Update: Gemeinschaft deutscher Laender (Ticker: LANDER)
28/2022 ♦ 07 September	▪ Primary market: A little more to come! ▪ ECB: PEPP visibly active as first line of defence
27/2022 ♦ 31 August	▪ ECB rate hikes: minimum of +100bp still to come by year-end ▪ Australia: Macquarie returns to the EUR benchmark segment
26/2022 ♦ 24 August	▪ Development of the German property market ▪ Transparency requirements §28 PfandBG Q2/2022
25/2022 ♦ 27 July	▪ ECB likes abbreviations: After OMT and SMP, we now have TPI ▪ Covereds vs. Senior Unsecured Bonds
24/2022 ♦ 20 July	▪ A brief spotlight on the EUR sub-benchmark segment ▪ Deutsche Hypo real estate climate: index falls again
23/2022 ♦ 13 July	▪ ECB preview: might the ECB go slightly further? ▪ EBA Report on Asset Encumbrance: levels increasing
22/2022 ♦ 06 July	▪ H1 review and outlook for H2 2022 ▪ Half time in the 2022 SSA year – taking stock

NORD/LB:	**NORD/LB:**	**NORD/LB:**	**Bloomberg:**
Markets Strategy & Floor Research	Covered Bond Research	SSA/Public Issuer Research	RESP NRDR <GO>

NORD/LB

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2022

Covered Bond Directive: Impact on risk weights and LCR levels

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

Transparency requirements §28 PfandBG Q3/2022 (quarterly update)

Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

Issuer Guide – German Laender 2022

Issuer Guide – German Agencies 2022

Issuer Guide – Dutch Agencies 2022

Beyond Bundeslaender: Greater Paris (IDF/VDP)

Spotlight on Belgian regions

Spotlight on Spanish regions

Fixed Income Specials:

ESG-Update 2022

ECB interest rate decision: delivered as expected?

ECB acts as the 'House of Hikes' - or: Winter is coming!

ECB frontloads rate hike by +50bp and breaches pre-commitment

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

Appendix
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Origination Corporates	+49 511 361-2911

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

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Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/Regionen	+49 511 9818-9550
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