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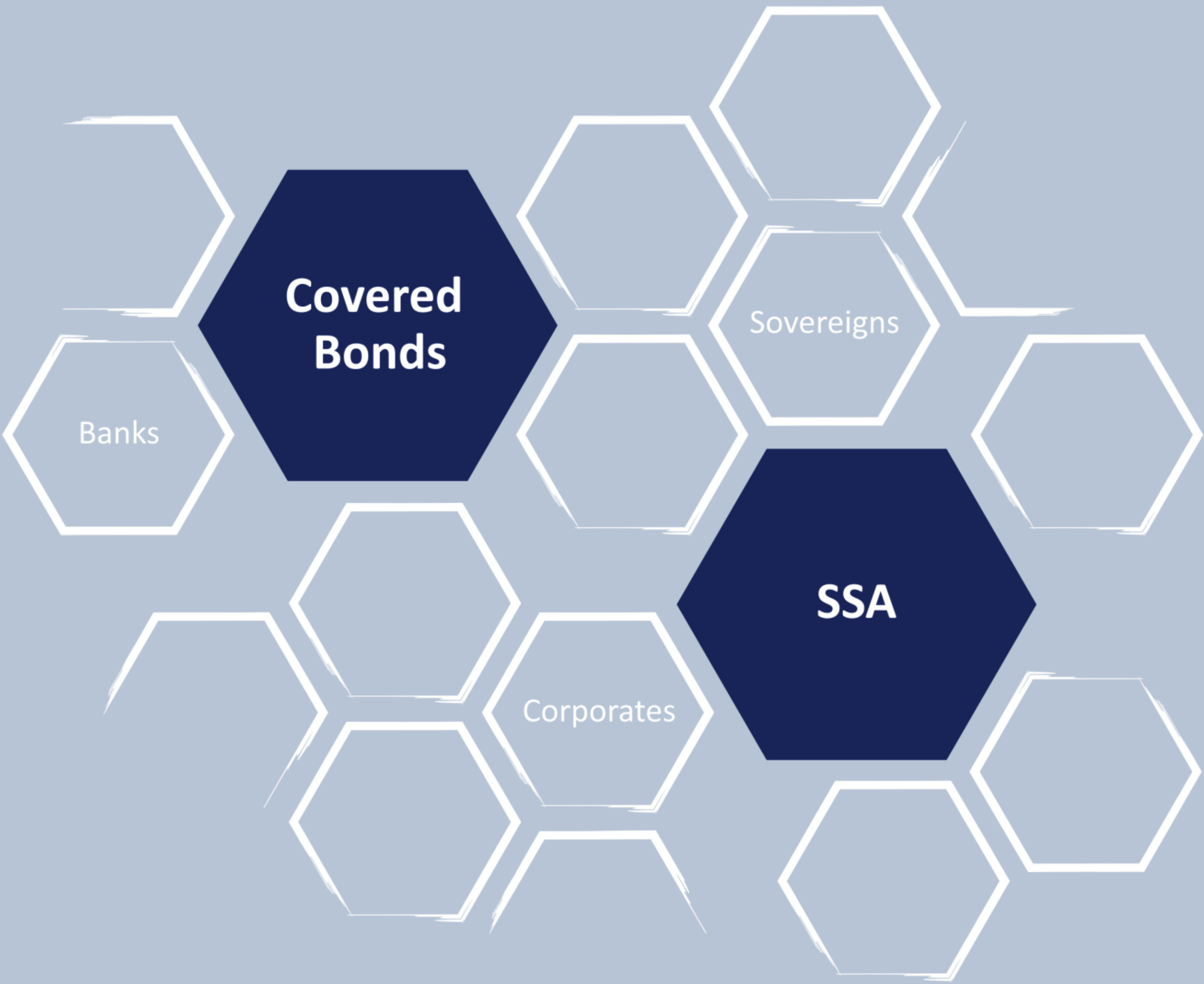

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

11 May 2022 ♦ 16/2022

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

Agenda

Floor analysts:

Covered Bonds/Banks

Dr Frederik Kunze
frederik.kunze@nordlb.de

Melanie Kiene, CIIA
melanie.kiene@nordlb.de

SSA/Public Issuers

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

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

NORD/LB:
Markets Strategy & Floor Research

NORD/LB:
Covered Bond Research

NORD/LB:
SSA/Public Issuer Research

Bloomberg:
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Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

Primary market: the issuance wave rolls on

On the date of our last weekly publication (4 May 2022), three more issuers had already approached investors: Norway's SpareBank 1 Boligkreditt (SPABOL) tested the resurgent 10-year maturity segment by placing EUR 1.0bn at ms +11bp in soft bullet format. This was already SPABOL's second issue this year. Compared with the initial guidance of ms +14bp area, the deal narrowed by three basis points to produce a new issue premium of 3bp against fair value. However, in comparison with the deals seen over previous days featuring an initial 10y maturity, the bid-to-cover ratio was on the low side at 1.3x (SBAB/SCBC 1.8x; BHH 4.0x; DKRED 4.7x; the latter two being social bonds in ESG format). La Banque Postale Home Loan SFH (LBPSFH) served the popular ESG segment with an 8y soft bullet covered bond in green format fixed at ms +4bp (narrowed from guidance of ms +9bp). The EUR 750m deal attracted orders in the amount of EUR 3.5bn (bid-to-cover: 4.7x), with a new issue premium of just 1bp to the secondary curve. On the same day, Austria's Hypo Vorarlberg Bank (VORHYP) placed EUR 500m with a maturity of six years (hard bullet) at ms +8bp (from ms +13bp area, bid-to-cover ratio: 3.2x and a new issue premium of just 0.5bp). The following day, HYPO NOE Landesbank fuer Niederoesterreich und Wien (HYNOE) issued the ninth covered bond from Austria this year. The 7y bond (soft bullet) with an issue volume of EUR 500m attracted an order volume of EUR 1.2bn (bid-to-cover: 2.4x) at a final spread of ms +9bp (guidance: ms +13bp area), producing a new issue premium of 2bp in the process. We are taking a closer look at the Austrian covered bond market and its regulatory environment in today's Covered Bond article. Also on 5 May 2022, Arkea Home Loans SFH (CMARK) raised EUR 750m at ms +7bp from investors. Despite a bid-to-cover ratio of 1.5x in the 10y range, the deal tightened by 5bp from its guidance of ms +12bp area and was eventually priced with a new issue premium of 0bp. In a difficult market environment, Nationwide Building Society (NWIDE) tested the 15y maturity range on Monday this week with initial guidance of ms +22bp area. Although this spread guidance offered a significant premium to the secondary market curve, a higher price proved impossible and the order book totalled just EUR 650m. In the end, a volume of EUR 500m was placed with investors at ms +22bp. Yesterday, Tuesday, two more issuers came to the market at the long end: Nationale-Nederlanden Bank (NNGRNV) issued a 10y bond worth EUR 500m at ms +7bp (guidance: ms +12bp area) and was able to generate a book of EUR 2.2bn. From Germany, Bausparkasse Schwaebisch Hall (BAUSCH) offered investors a 12y mortgage Pfandbrief for purchase. Marketing started at ms +8bp area and final spread was achieved at ms +6bp on an order book of EUR 630m. The new issue premium was therefore 3-4bp. This means that a total of EUR 94.1bn in EUR benchmarks has been placed so far this year. For today, Luminor Bank from Estonia (LUMINO) and Raiffeisen Bank International (RBIAV), another candidate from Austria, have announced bonds in the 5y maturity range.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
NN Bank	NL	10.05.	NL0015000WP1	10.0y	0.50bn	ms +7bp	- / - / AAA	X
BAUSCH	DE	10.05.	DE000A30VH59	12.0y	0.50bn	ms +6bp	- / Aaa / -	-
Nationwide	GB	09.05.	XS2480519656	15.0y	0.50bn	ms +22bp	AAA / Aaa / AAA	-
Arkea Home Loans	FR	05.05.	FR001400ABK6	10.0y	0.75bn	ms +7bp	AAA / Aaa / -	-
Hypo NOE	AT	05.05.	AT0000A2VXQ0	7.0y	0.50bn	ms +9bp	- / Aa1 / -	-
La Banque Postale	FR	04.05.	FR001400A9N7	8.0y	0.75bn	ms +4bp	- / - / AAA	X
SpareBank 1 Boligkreditt	NO	04.05.	XS2478523108	10.0y	1.00bn	ms +11bp	- / Aaa / -	-
Hypo Vorarlberg	AT	04.05.	XS2478521151	6.0y	0.50bn	ms +8bp	- / Aaa / -	-

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

Covered Bonds profit as a safe haven in turbulent times

Moreover, the market continues to be receptive to the ongoing supply, including at the long end, even if new issue premiums here were again somewhat higher in recent days. The secondary market remains solid and the short end continues to be very popular. Even though covered bond spreads have generally widened slightly this year, they are clearly outperforming other asset classes. Financial preferred and non-preferred bond spreads are trading significantly wider than at the beginning of the year (the iTraxx Senior Financial CDS Index has doubled from 55 to 110 basis points this year), and the same trend is evident for corporate bonds. Equities are also going in one direction only and investors are making a run for cash and safe assets, which obviously include covered bonds, due to their regulatory requirements. Especially at the short end, covered bonds still seem to be a sought-after cash surrogate. However, further distortions and volatility on the financial markets are unlikely to leave the covered bond market unscathed, especially as further issuers are waiting in the wings after the reporting season before the end of the ECB's net purchases and the currently unchanged central bank order quota of 30%.

NORD/LB Capital Market Spotlight event: "Spotlight on Sweden" – 12 May 2022

After having taken a closer look at the Covered Bond Market in Sweden last week, we would like to remind you about our tomorrow's Capital Market Spotlight event focusing on Sweden. We will be providing an overview of the market and the regulatory environment with presentations from the issuers LF Bank, SBAB and Swedbank. We look forward to your participation on Thursday, 12 May at 2.00pm (CET). If you are interested in taking part in this virtual event, please feel free to contact us at event-markets@nordlb.de.

Market overview
SSA/Public Issuers

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

Addendum to the German Government's financial shield

As a result of the Russian war of aggression, the current economic situation of many companies is characterised by great uncertainty. The sanctions taken by the community of states are hitting the Russian economy hard, according to the German government, but are also having an impact on the position of companies in Germany. Federal Minister of Finance Christian Lindner and Federal Minister of Economic Affairs and Climate Action Robert Habeck therefore presented a package of measures back in April to support companies affected by the sanctions relating to the war. We had not commented on this until now. The "Temporary Crisis Framework" adopted by the European Commission on 23 March 2022 - subject to approvals still required under state aid law - provides the necessary basis for state aid to help the affected companies overcome the challenges. In the current situation, companies are primarily concerned with securing liquidity in the short term. The German government is therefore supporting companies and sectors primarily with precisely this kind of liquidity assistance. It does this, for example, through a loan program from the KfW promotional bank. Companies of all sizes are given access to low-interest loans with extensive liability exemption. The program will have a volume of up to EUR 7bn. In addition, according to the German government, individual extensions to the Bund-Laender guarantee programs for companies demonstrably affected by the Ukraine war already introduced during the COVID-19 pandemic are to be continued. This concerns the guarantee banks and the large-scale guarantee program. KfW also appears in two other places: First, there will be a financing program for companies endangered by high collateral (margining). For this, the German government is drawing up standardized criteria for granting companies KfW credit lines backed by a federal guarantee at short notice. A total credit volume of up to EUR 100bn is planned for this measure. Secondly, the German government is also planning to provide targeted equity and hybrid capital assistance as an option for stabilising particularly relevant companies. To the extent that individual cases are affected, this can initially be handled technically via allocation transactions by KfW.

No significant impact on KfW's funding anticipated

The above measures and their implementation are currently being developed or are underway, and their impact on KfW's funding requirements via the money and capital markets can therefore not yet be conclusively assessed. During the COVID-19 pandemic in particular, the ministries, the Finance Agency and KfW have always worked together to find solutions (not only on the Economic Stabilization Fund, WSF). The funding volume on the capital market of EUR 80-85bn remains unchanged for 2022. In the year to date, more than EUR 50bn of this amount has already been raised and as we were able to gather from the investor newsletter, the Global Investor Broadcast and personal discussions with KfW, that the Frankfurt-based bank is in a very comfortable liquidity position. In any event, the respective funding needs are always reassessed towards the middle of the year. We expect a press release to be issued in mid-July covering completed and future capital market activities.

KfW Global Investor Broadcast

On Monday, the KfW Global Investor Broadcast took place, which we do not wish to leave uncommented: Stefan Wintels, CEO of KfW, kicked off the event with an insight into the current market environment. Russia's war of aggression marked a turning point in the history of Europe, which also affected KfW in several aspects. Fundamentally speaking, Wintels sees the current period as a “decade of decisions”. Next, KfW's Chief Economist Dr. Fritzi Köhler-Geib took questions. The central issue was the economic impact on Germany of the war of aggression. The consequences are difficult to assess at this point in time, as they depend on the further course of the war. The focus, however, is on a possible gas embargo. More than half of Germany's gas is currently imported from Russia via pipelines, said Dr. Köhler-Geib, and an embargo would hit the economy hard. Finally, Tim Armbruster, Treasurer, took the floor. He said that the capital market is currently more volatile than before, primarily driven by the war in Ukraine, and this is reflected by strong demand for safe bonds. He sees KfW as being in a very good position, as it has a broad range of foreign currencies, with the EUR, at over 60%, accounting for the major share. At a volume of EUR 50bn, KfW has already reached 61% of its funding target of EUR 80-85bn for 2022 for strategic reasons (prefunding), and has used the liquid funds to repay EUR 15bn to the ECB (TLTRO-III), among other aspects. KfW was also highlighted as an issuer of green bonds, reflected by the recent "Agency Green Bond of the Year" award for a USD 3bn issue. Green bonds currently account for almost 10% of liquid EUR bonds and in Scandinavian currencies (SEK, DKK and NOK), the share is over 50%. An investor question referred to the volume of the bonds: Previously, KfW had tapped EUR benchmark bonds up to a volume of EUR 6bn, now it is to go up to EUR 7bn. Tim Armbruster justified this with the higher bond liquidity. We highly appreciate the information from KfW and look forward to a new update in about six months.

Rentenbank announces initial figures for 2022

Rentenbank has announced its first figures for the current financial year. In Q1, new business with low-interest programme loans reached around EUR 1.9bn, compared with EUR 1.3bn in the same period of the previous year. Demand for loans in the categories of “Renewable Energy” and “Rural Development” rose particularly sharply. Since July 2021, Rentenbank has also focused on promoting innovation and start-ups. These include low-interest subordinated loans of up to EUR 800,000 in combination with grants for consulting services. In order to further increase the pace of innovation in agriculture and forestry as well as to develop and strengthen the areas of bioeconomy and circular economy for the industry, in February 2022, Rentenbank participated in the European Circular Bioeconomy Fund (ECBF). On the funding side, the issuance volume in Q1 was EUR 6.3bn, which is already more than half the funding target of EUR 11bn. As a reminder, the funding volume in 2021 as a whole was EUR 10.7bn, of which EUR 1.8bn was attributable to green bonds. “Green bonds are an essential element of Rentenbank’s sustainability strategy. These funds support the expansion of the wind power portfolio, in which the volume of new loan commitments increased substantially in 2021,” said Rentenbank Management Board member Nikola Steinbock.

FMS Wertmanagement achieves wind-down target for 2021

The German federal government's winding-up institution FMS Wertmanagement (ticker: FMSWER) has closed the financial year 2021 with a result of EUR 44m from ordinary activities. As a reminder, FMS-WM was founded in 2010 with the aim of winding down the risk positions and business areas taken over from the Hypo Real Estate Group. The nominal value of the portfolio was reduced in 2021 to EUR 54.1bn (EUR -7.5bn Y/Y). "We once again reduced the complexity of the portfolio in fiscal year 2021 and thus implemented further measures aimed at achieving the medium-term objectives," said Chief Executive Officer and Spokesman of the Executive Board Christoph Müller. Since 1 October 2010, the portfolio has been reduced by approximately 69%. The sale process of DEPFA was completed on 19 November 2021, during the course of which all FMS-WM funding lines for the DEPFA Group were terminated. FMS-WM therefore successfully completed and achieved in full the wind-down mandate for the DEPFA Group in financial year 2021. At the end of 2021, the volume of funding via the Financial Market Stabilization Fund (FMS) special fund had risen to stand at EUR 55.0bn. "FMS-WM itself continues to ensure long-term funding in foreign currencies and short-term money market funding," explained Carola Falkner, Executive Board member in charge of Treasury and Asset Management.

Primary market

Until yesterday, Tuesday, it was rather quiet on the SSA primary market. On Monday, we heard the news that the Export-Import Bank of Korea (ticker: EIBKOR) has hired banks to accompany a possible EUR issuance this month. In addition, mandates by the German state of Lower Saxony and the French Unédic appeared on the screens of market participants. Yesterday, it was straight to the point: In addition to the two aforementioned deals, MuniFin also joined the circle of issuers. However, let us begin with our largest shareholder, Lower Saxony (ticker: NIESA): the maturity of the bond is seven years and the volume EUR 1bn. The guidance for the deal was ms -15bp area, during the marketing phase a narrowing by two basis points to ms -17bp was possible. At this spread, the order book finally amounted to EUR 2.6bn. The French institution of the social security system (ticker: UNEDIC) selected a maturity of ten years for its social bond, also with a volume of EUR 1bn. For this bond, too, a narrowing by two basis points to OAT +23bp was possible compared to the guidance of OAT +25bp area. According to our calculation, this corresponds to roughly ms -13bp. Meanwhile, the Finnish municipal financier MuniFin (ticker: KUNTA) issued a 7y green bond with a volume of EUR 500m (WNG). The guidance was ms -8bp area, although the spread was fixed at ms -11bp. With an order book of EUR 1.5bn, the bid-to-cover ratio was ultimately 3.0x. Our last issue already made mention of the RfP of the European Union, and yesterday it became concrete on the basis of the mandate: The EU – which is also this issuer's ticker – intends to issue a dual tranche for its NGEU funding needs. The intention is to issue a new three-year EUR benchmark bond and a tap of the existing EU 0.7% 07/06/2051. We expect the books to open today, Wednesday.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
KUNTA	Nordics	10.05.	XS2480922389	7.0y	0.50bn	ms -11bp	- / Aa1 / AA+	X
UNEDIC	FR	09.05.	FR001400ADP1	10.5y	1.00bn	ms -13bp	AA / Aa2 / -	X
NIESA	DE	09.05.	DE000A30VHW7	7.4y	1.00bn	ms -17bp	AAA / - / -	-

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

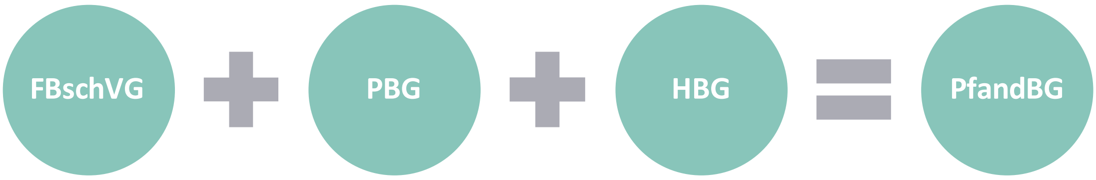
Covered Bonds
Focus on covered bond jurisdictions: a look at Austria

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze

EU CB Directive has prompted Austria to introduce uniform Pfandbrief framework

As is the case in all EEA member states, the EU Covered Bond Directive (EU 2019/2162) had to be transposed into national law in Austria by 8 July 2021 to take full effect from 8 July 2022. The Austrian National Assembly complied with this requirement at the end of 2021 and at the same time created a uniform legal basis for covered bonds, which replaces the three previously relevant national and in part inconsistent legal frameworks (namely, the Mortgage Banking Act [Hypothekenbankgesetz], the Covered Bond and Related Bonds from Public Credit Institutions Act [Gesetz über die Pfandbriefe und verwandten Schuldverschreibungen öffentlich-rechtlicher Kreditanstalten] and the Secured Bank Bond Act [Gesetz betreffend fundierte Bankschuldverschreibungen]). As a result, Austria's "Federal Pfandbrief Act" includes not only a new Pfandbrief Act – PfandBG, but also changes to the mortgages and real-estate credit Act, the Banking Act and other affected laws. It should be emphasised that the circle of institutions entitled to issue covered bonds under Austrian legislation has now been formally extended to include all credit institutions, provided they meet the legal requirements. The previously applicable special banking principle has therefore been repealed. In addition, the definition of uniform eligible cover assets was standardised, the establishment of an internal or external trustee for the ongoing monitoring of the cover pool was introduced and a mandatory liquidity buffer was included. In the following, we first go into detail about the new Pfandbrief Act and then take a look at Austria's covered bond market and its issuers.

The new Pfandbrief Act (PfandBG) – three into one



Source: NORD/LB Markets Strategy & Floor Research

The Pfandbrief Act – PfandBG

Divided into five main elements, the PfandBG defines:

- *Scope and terminology (main element 1)*
- *Structural features (main element 2)*
- *Protection against enforcement and set-off; insolvency provisions (main element 3)*
- *Supervision of covered bonds, administrative sanctions and other measures (main element 4)*
- *Transitional and final provisions (main element 5)*

Main element 1: Scope and terminology
The PfandBG applies to covered bonds issued by credit institutions based in the European Union. Article 3 of the PfandBG explains all relevant terms that are important in this context – of which there are 22.

Main element 2: Structural features
This main element is the most comprehensive of all and deals in five sections with the topics of dual recourse and insolvency remoteness, eligible cover assets, general rules on cover, risk management, trustees for monitoring the cover pool, liquidity, transparency requirements and protection of the label.

Main element 2: Section 1 – dual recourse and insolvency remoteness
The dual recourse mechanism grants the investor and the counterparty of derivative contracts (provided that they only serve as hedging transactions and are for the purpose of risk hedging and comply with Section 16 of the PfandBG) a claim against the covered bond. Initially, there is a claim against the covered bond issuer, but in the event of insolvency or liquidation of the issuer there is a priority claim on the principal amount as well as any accruing and future interest from the cover assets (pursuant to Section 26 No. 1 of the PfandBG) and insofar as this is not sufficient for complete fulfilment of the payment obligations attached to the covered bond, a claim according to Section 26 No. 2 of the PfandBG (claim to distribution of the proceeds from the special fund, Section 132 (4) of Austria's Insolvency Statute). In this context, the term "insolvency remoteness" refers to the fact that payment obligations are not automatically made due prematurely if the issuing credit institution is insolvent or is being wound up.

Main element 2: Section 2 – eligible cover assets
With regard to eligible cover assets, the PfandBG essentially refers to the risk exposures under Article 129 (1) of the CRR insofar as they meet the requirements of Article 129 (1a) to (3) of the CRR and other high-quality cover assets in accordance with Section 6 (2) and (3) of the PfandBG. These eligible cover assets include residential mortgages with a mortgage lending value of up to 80% (in Germany 60%), whereby the institutions can voluntarily set lower loan-to-value limits for the cover assets, though this must then be enshrined in the articles of association. Commercial real estate loans and ship loans may be permitted a loan-to-value ratio of up to 60%, risk exposures to the public sector and loans to credit institutions of credit rating level 1 (rating AA-/Aa3; geographically in the EEA, Switzerland or the UK) can be used as cover assets. Other high-quality cover assets, as referred to in Article 129 of the CRR, may include aircraft loans and other high-quality receivables with similar security interests to mortgages. Only time will tell what this means and what is deemed eligible – as there is no "blueprint" as yet. In contrast, Germany has explicitly included aircraft mortgages, while France has decided against the inclusion of "other high-quality cover assets". The increase in the loan-to-value limit from 60% to 80% for residential real estate loans (which was also previously only fixed in the Mortgage Banking Act) is probably the biggest change to the three existing frameworks in Austria, alongside the recognition of maritime liens on ships.

Excerpt from the possible eligible cover assets in the country comparison

	Austria	Germany
Loans and advances to the public sector		
Loans and advances to credit institutions (up to 15% of the nominal amount of outstanding covereds)		
Residential mortgage loans		
Commercial real estate loans		
Ship loans		
Loans to public sector entities		
Other high quality assets		
Aircraft loans	*(potentially as part of other high-quality assets)*	

Light green = yes, white = no; source: CRR, PfandBG (AT), PfandBG (DE); CBD Implementation Act (DE), NORD/LB Markets Strategy & Floor Research

Main element 2: Section 2 – other security rights and other provisions on mortgages/consumer credit

These requirements as outlined in Section 7 of the PfandBG are to some extent self-explanatory, with mortgages to be fulfilled on an equal footing as the other physical security interests. In the case of lending on rights limited in time, the scheduled repayment of the loan must end not more than ten years before the right expires and may not last longer than is necessary to write off the building in the books in accordance with economic principles. Mortgages with construction sites and unfinished new buildings may not exceed a total of 10% of the mortgage cover pool. Mortgage with pits, quarries and mines are not eligible. In the case of consumer credit, the consumer's present right of repayment cannot be restricted, and here the bank must hold sufficient reserves of eligible cover assets.

Main element 2: Section 3 – cover requirements

The provisions for cover requirements can be found in Sections 9, 11 and 12 of the PfandBG. The Pfandbrief Act defines three different types of covered bonds: Pfandbriefe (mortgage covered bond), public-sector Pfandbriefe (Kommunalbrief, Kommunalobligation, Kommunalschuldverschreibung – municipal bonds) and ship Pfandbriefe. This is supplemented by the protection of the label (Section 24 of the PfandBG). The total volume of covered bonds outstanding must be covered at all times by assets of at least the same amount, with additional overcollateralisation of at least 2% (measured on the basis of the nominal value of the Pfandbriefe in circulation). In addition to any interest and repayment obligations, liabilities also include obligations arising from derivative contracts and the anticipated costs for management and administration as well as the termination and liquidation of the program. Possible cover assets for the aforementioned obligations include 1. primary assets, 2. substitution assets, 3. liquid assets held pursuant to Section 21 of the PfandBG (liquidity buffer) and 4. payment claims in conjunction with derivatives contracts held pursuant to Section 16 of the PfandBG. The cover assets may originate from the EEA, Switzerland or the UK. However, only cover assets from the 1st and 2nd categories are eligible for overcollateralisation. Primary cover must be ≥85% of the cover requirement, the top up to 100% may only be made with substitution assets in accordance with Article 129 (1) of the CRR. Further requirements for derivatives, for example for contract partners, etc., are indicated in Section 16 of the PfandBG or in Section 14 of the PfandBG for joint funding. A different calculation is used for zero coupon bonds (basis: buy-back value). The issuer decides whether the excess cover is to be held in cash or nominal terms, but must then also apply this to the liabilities. Also on a voluntary basis, the issuer can fix a higher overcollateralisation in its articles of association.

Coverage ratio requirement in comparison - valid from 08 July 2022

Austria	Germany Mortgage & Public Sector CB	Germany Ship & Aircraft CB
2% nominal	2% nominal	5% nominal
optional: net present value +2% individual issuer decision	Additional net present value coverage of 2% (pursuant to Art. 4 (1) of the PfandBG)	

Source: CRR, PfandBG (AT), PfandBG (DE); CBD Implementation Act (DE), NORD/LB Markets Strategy & Floor Research

Main element 2: Section 3 – cover register

All cover assets are to be listed in the cover register (Section 10 of the PfandBG). Those that the credit institution does not hold must also be registered and noted with the actual holder. In the case of credit claims, inclusion in the cover register can only take place with the consent of the borrower; the same procedure must be followed in the case of hedging transactions in which the trustee and contractual partner must consent. After repayment, the entry must be deleted from the cover register immediately, in the event of incomplete repayment only with the consent of the trustee. Separate cover registers, the cover assets of which are to be assigned to specific bonds, are permitted. A secure copy of the cover register must always be stored.

Main element 2: Section 3 – composition of the cover pool and segregation of cover assets

Pfandbriefe may be issued on the basis of the risk exposures referred to in Article 129 (1a) to (3) of the CRR and other high-quality cover assets. Within the category, several cover pools are therefore also possible. The cover assets must be identifiable at all times, which means that securities must be designated with an ISIN, cash must be held separately, mortgages held in trust must be noted with their trustee and cover assets are subject to a segregation of assets by the credit institution.

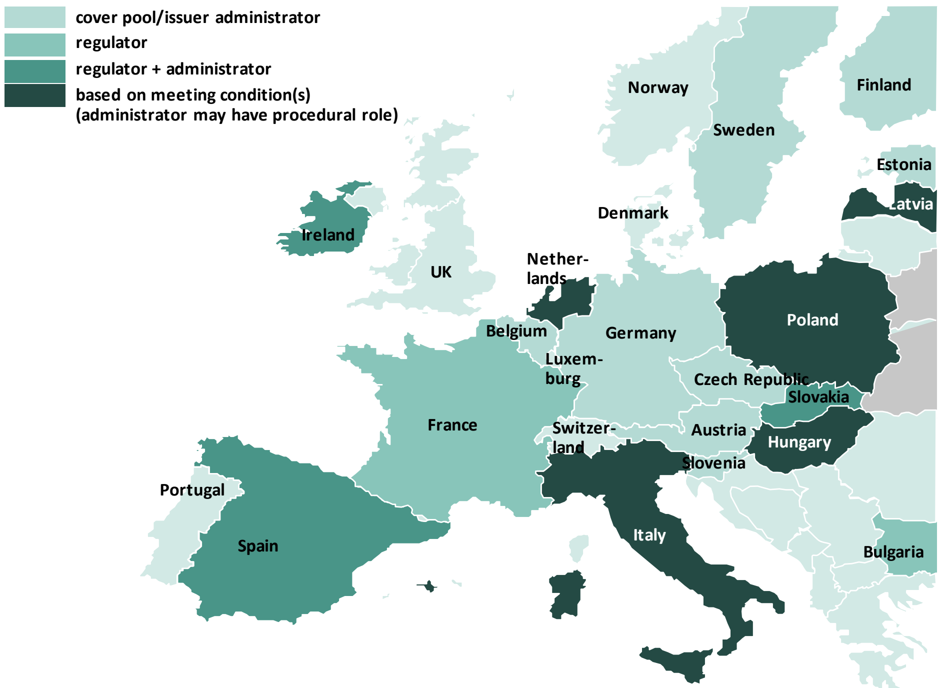
Main element 2: Section 4 – risk management, trustee for monitoring of cover pool

All credit institutions issuing covered bonds shall establish a risk management department independent of the operational business, with appropriate risk management systems for the market, interest, currency, credit and liquidity risks associated with bond issuances, with direct access to the managing directors and the Chairman of the Supervisory Board or the supervisory body otherwise responsible by law or under the Articles of Association. An internal or external trustee must also be appointed to verify the claims, payment obligations, overcollateralisation, etc. and reviews or carries out the information and notification obligations.

Main element 2: Section 5 – liquidity buffer

In accordance with Section 21(1) of the PfandBG, the cover pool liquidity buffer must cover the maximum cumulative net liquidity outflow over the next 180 days. The drafting of Paragraphs 2 and 3 of Section 21 of the PfandBG on the admissible assets to cover the liquidity buffer is also commented on by the Austrian legislators in that the Covered Bond Directive does not specify the assets to be used (levels 1, 2A or 2B of Delegated Regulation (EU) 2015/61 and exposures under Article 129 (1) c) of the CRR), but does not go into any detail about the structure. In this respect, Section 21 (2) of the PfandBG refers to the general and operational requirements of Articles 6 to 8 and Article 9 of Delegated Regulation (EU) 2015/61. The basis for calculating the liquidity buffer is also the original maturity date, unless there are any maturity extensions (Section 21 (5) in conjunction with Section 22 of the PfandBG), in which case the calculation basis will be the extended maturity date. In its Pfandbrief Act, Germany has also fixed the original maturity as a liquidity buffer reference, meaning both countries have opted to take a conservative approach. In the course of transposing the Covered Bond Directive into Austrian law, the right under Article 16 (6) of the Covered Bond Directive is also exercised, so that the liquidity buffer does not have to be held for covered bonds with congruent refinancing (cf. PfandBG, Section 21 (6)). Paragraph 4 of Section 21 of the PfandBG prevents credit institutions from having to hold liquid assets twice for the same period to cover the same outflows – once for the purposes of the LCR (Article 412 of the CRR) and once for the liquidity buffer of the cover pool. This represents an easing, because even if there is still no legislation for maintaining a liquidity buffer in Austria, the rating agencies contractually demand a buffer for the programs.

Maturity extensions are regulated differently and often in the hands of third parties



Source: Moody's (*New liquidity and maturity extension rules are positive but credit benefits will be uneven*, 17.01.22), NORD/LB Markets Strategy & Floor Research

Main element 2: Section 5 – terms of a maturity extension
Article 17 of the Covered Bond Directive provides that the triggers for covered bonds with extendable maturity structures (soft bullet structure) must be specified in national law. In the PfandBG, potential triggers for the maturity extension are defined in Section 22 (2) of the PfandBG. The maturities of covered bond issuances can therefore be extended by up to 12 months on a one-off basis "subject to objective triggers". The law also mentions insolvency as an event that could be used for a maturity extension. Provided that the administrator is convinced at the time of the maturity extension that the liabilities can be paid in full at the extended maturity date. The ranking and sequence of investor claims remains unaffected regardless of the maturity extension. Alongside the maturity extension option, other transparency obligations are included, such as the role of the FMA, the resolution authority and the insolvency administrator.

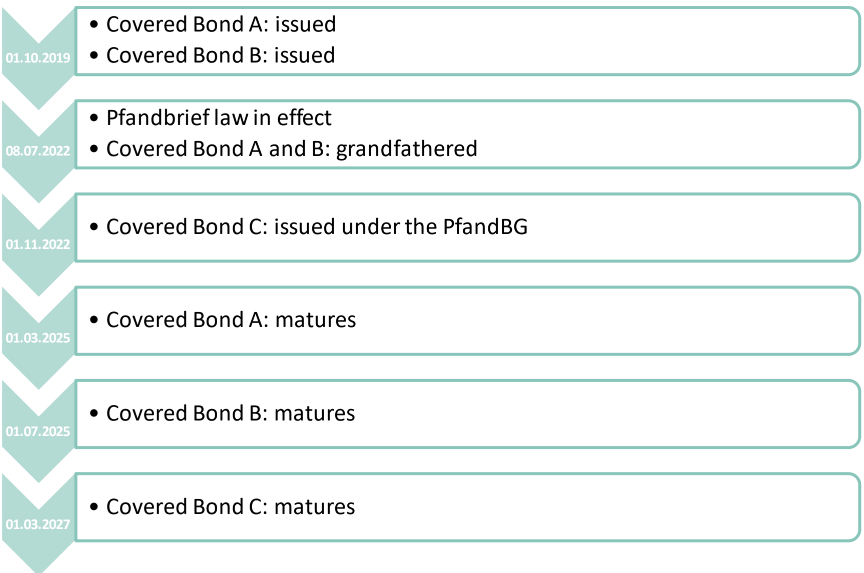
Soft bullet structure now regulated by law, but hard bullet structure also possible
Maturity structure is another important issue that was addressed by the Austrian legislator in the course of consolidating the three existing laws and implementing the requirements of the EU Directive. With regard to the EUR benchmark segment, there are currently issuers with outstanding hard bullet bonds (BAWAG, Hypo Vorarlberg Bank, RLB Steiermark, RLB Vorarlberg, UniCredit Bank Austria and Volksbank Wien) and those that have opted for only soft bullet structures (Hypo Tirol Bank and Raiffeisen Bank International). At the same time, Erste Group Bank, Hypo NOE, RLB Niederösterreich-Wien and RLB Oberösterreich are four EUR benchmark issuers that initially placed hard bullets on the market but have since switched to issuing EUR benchmarks with a soft bullet structure. Accordingly, the PfandBG in Austria includes the right of the member states, so that covered bonds can (continue to) be issued with maturity extensions (cf. Section 22 of the PfandBG).

Main element 2: Section 6 – transparency requirements
The following information must be disclosed to investors on a quarterly basis:
1. *Cover pool volume and volume of outstanding covered bonds*
2. *ISIN list for all bonds issued under this program*
3. *Geographic breakdown and types of cover asset, scope of loans and valuation method*
4. *Information on market risk (incl. interest, currency, credit and liquidity risk)*
5. *Maturity structure of cover assets and Pfandbriefe and, if necessary, an overview of all triggers for the maturity extension*
6. *Amount of required and available cover and the amount of statutory, contractual and voluntary overcollateralisation*
7. *% rate of NPLs and loans more than 90 days overdue in each case*

Main element 2: Section 7 – protection of label
As previously outlined, there are different types of covered bonds (see also section on "Cover requirements"). With Section 24 of the PfandBG, the legislature implements Article 27 of the CB Directive on labelling and lays down the conditions under which bonds are eligible for the labels "European covered bond" and "European covered bond (premium)". This label is being introduced for the first time and will therefore only come into force on 8 July 2022. Those wishing to use the label "European covered bond (premium)" must fulfil certain additional requirements (namely those of Article 129 of the CRR following amendment by the CB Directive) and therefore recognises that the bond exhibits higher quality standards. In addition, there are a number of established labels in Austria which can continue to be used: *"gedeckte Schuldverschreibungen", "Pfandbrief", "Hypothekenpfandbrief", "Kommunalschuldverschreibung", "Kommunalbrief", "Kommunalobligation", "fundierte Bankschuldverschreibungen", "öffentlicher Pfandbrief", "Schiffspfandbrief", "Schiffshypothek"* or other labels containing any of these terms.

Main element 3: Section 7 – Protection against enforcement and set-off; insolvency provisions
Section 25 of the PfandBG defines that offsetting against cover assets is not permitted or effective for the protection of the cover pool. This is somewhat softened in the case of consumers and here the prohibition only relative to the ratio of creditors of covered bonds and derivative creditors. Article 26 of the PfandBG defines the provisions of insolvency proceedings in more detail. Accordingly, the cover pool becomes a special fund from which covered bond creditors are paid as required, whereby nothing changes with regard to the ranking of investors in the wake of maturity extensions. An administrator (curator) assigned by the insolvency court handles cover pool management and winding down, which also covers the inclusion of maturing mortgages, the sell-off of individual cover assets and interim financing.

Example of transitional provisions



Source: NORD/LB Markets Strategy & Floor Research

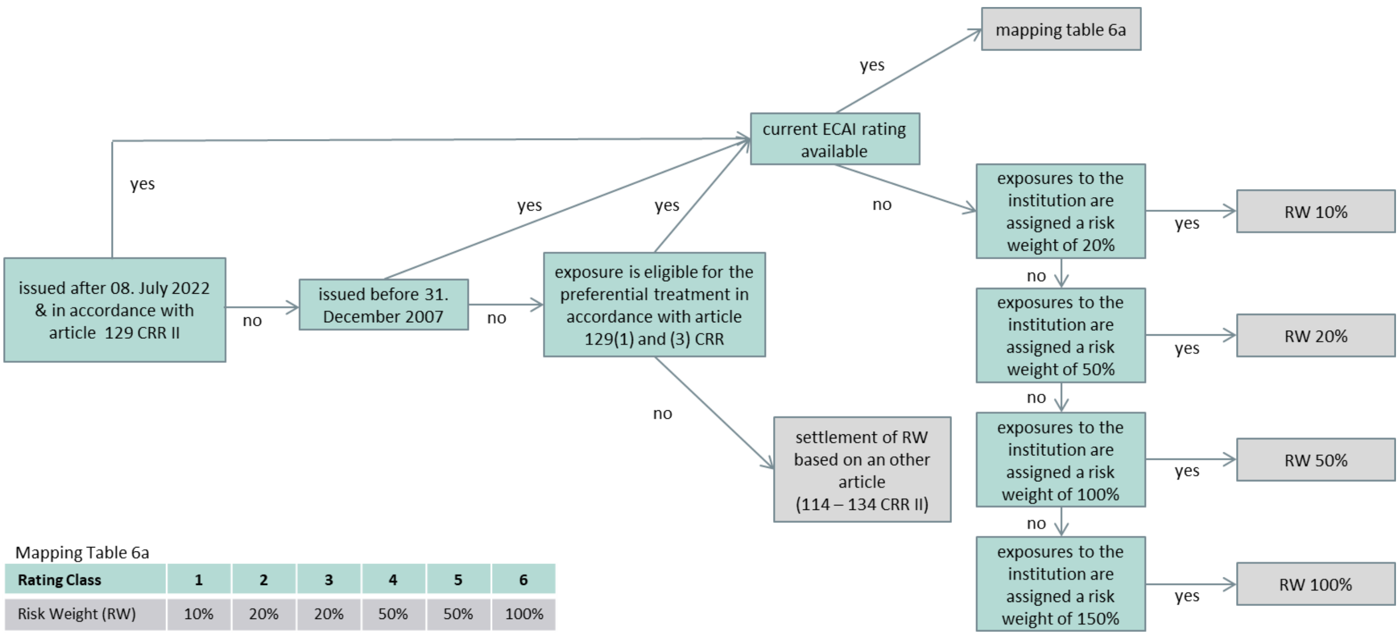
Main element 4: Supervision of covered bonds, administrative sanctions and other measures

Articles 27 to 38 of the PfandBG essentially deal with the competent authorities (Financial Market Authority (FMA)), supervisory authorities, supervisory powers and the obligations of the issuer – such as the approval of a program, obligation to cooperate – but also with provisions concerning penalties in the event of infringements, sanction possibilities and EBA notifications.

Main element 5: Transitional and final provisions

Section 44 of the PfandBG specifies that the Pfandbrief Act will enter into force on 8 July 2022, thereby adopting the same date as the Covered Bond Directive. Section 39 of the PfandBG is of great significance for covered bonds issued before 8 July 2022. This section defines the transitional provisions and applies a "grandfathering" provision to all outstanding covered bonds until maturity, provided that the securities comply with the legal requirements relevant at the time. Issuers whose programs have already been granted approval can also place new bonds under the Pfandbrief Act.

Risk weighting of covered bonds by credit risk - standard approach Article 129 of the CRR II (from 8 July 2022)



Mapping Table 6a

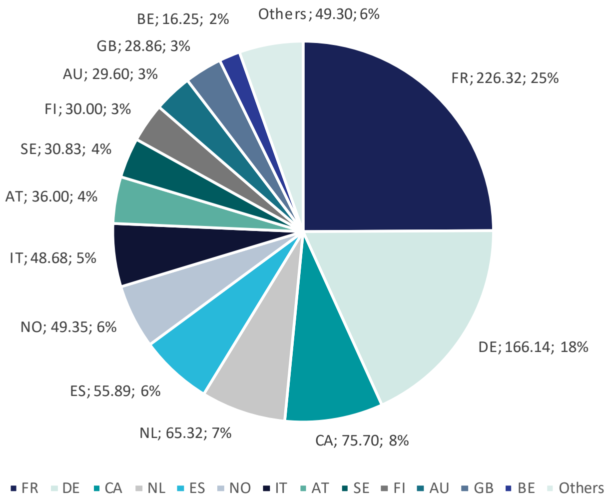
Rating Class	1	2	3	4	5	6
Risk Weight (RW)	10%	20%	20%	50%	50%	100%

Source: CRR, CRR II, NORD/LB Markets Strategy & Floor Research

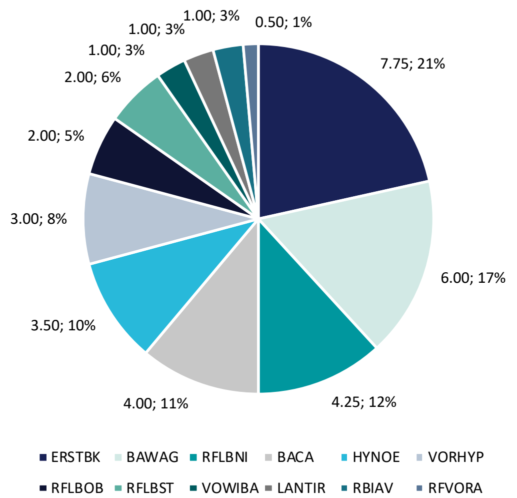
A look at the covered bond market in Austria

Having described the Pfandbrief Act in detail, in the following we will take a look at the covered bond market. Currently, the EUR benchmark segment in Austria consists of 12 issuers, which have 66 bonds with a total volume of EUR 36.0bn. This puts the country in eighth place of the largest EUR benchmark jurisdictions, behind Italy (EUR 48.7bn) and ahead of Sweden (EUR 30.8bn). In terms of the number of outstanding EUR benchmarks, it is even ranked third; between France (216) and the Netherlands (65). Erste Group Bank is the largest issuer with a volume of EUR 7.75bn and 11 outstanding benchmarks. Next are BAWAG (EUR 6.00bn; 11 benchmarks) and Raiffeisenlandesbank Niederösterreich-Wien (RLB NÖ-Wien; EUR 4.25bn; 8). Along with Germany, Belgium and France, Austria is one of the few markets to have not only mortgage benchmarks, but also outstanding bonds backed by public sector assets, albeit only six (EUR 3.0bn; 3 issuers). These issuers are BAWAG, Hypo NOE and RLB NÖ-Wien.

Outstanding volume EUR BMK (in EURbn)



AT: Outstanding volume EUR BMK (in EURbn)



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

Cover pools with a predominant focus on the domestic market

The table below shows the twelve EUR benchmark covered bond issuers, with extracts from their covered bond reporting as at the end of 2021 and, if available, as at the end of Q1 2022. It becomes clear that the overcollateralisation ratios were almost always in the double-digit range and often even exceeded 20%. For some issuers, this also implied opportunities to place a new bond. In terms of geographic distribution, most banks relied on their domestic market, with only four mortgage and two public sector programs accounting for less than 90% of Austria.

NORD/LB

Overview: Austrian EUR benchmark issuers *(all data retrieved on: May 10, 2022)*

Issuer (*Link*)	Pat	CB Volume	Cover Pool	Current OC	WA life CB in years	Share Residential	LTV unindexed	Geography /main country of origin	Rating Fitch/Moody's/S&P
BAWAG*	Mortgage	7,215	8,683	20.3%	7.4	98.1%	64.7%	56.8% Austria → 15.0% Lower Austria	- / Aaa / -
	Public	1,504	1,665	10.7%	3.9	-	-	99.9% Austria → 25.3% Upper Austria	- / Aaa / -
Erste	Mortgage	17,653	24,242	37.3%	5.2	98.4%	73.8%	97.7% → 29.1% Vienna	- / Aaa / -
	Public	2,976	4,181	40.5%	4.7	-	-	99.2% Austria → 29.1% Lower Austria	- / Aaa / -
Hypo NOE*	Mortgage	2,182	2,937	47.0%	5.0	71.0%	56.0% (12/21)	82.0% Austria → 62.0% Lower Austria	- / Aa1 / -
	Public	4,053	4,640	27.0%	5.2	-	-	100.0% Austria → 85.0% Lower Austria	- / Aa1 / -
Hypo Tirol*	Mortgage	2,212	2,815	27.3%	5.1	67.0%	61.9% (12/21)	97.0% Austria → 86.0% Tirol	- / Aa1 / -
	Public	740	961	29.8%	1.6	-	-	100.0% Austria → 90.0% Tirol	- / Aa1 / -
Hypo Vorarlberg*	Mortgage	3,789	5,325	41.0%	3.6	52.4%	61.4% (indexed)	44.8% Austria → 31.6% Vorarlberg	- / Aaa / -
	Public	381	569	49.0%	5.4	-	-	83.6% Austria → 48.5% Vorarlberg	- / Aa1 / -
RBI	Mortgage	1,950	3,349	71.8%	4.1	19.0%	-	56.1% Austria → 39.9% Vienna	- / Aa2 / -
	Public	1,208	980	23.3%	4.2	-	-	67.4% Austria → 22.5% Burgenland	- / Aa2 / -
RLB NÖ-Wien*	Mortgage	5,001	8,088	61.7%	4.4	53.4%	53,4% (indexed)	100.0% Austria → 49.0% Vienna	- / Aaa / -
	Public	1,852	2,561	38.3%	3.3	-	-	100.0% Austria → 82.4% Lower Austria	- / Aaa / -
RLB OÖ*	Mortgage A	2,035	3,384	66.3%	8.9	97.2%	65.6%	100.0% Austria → 75.6% Upper Austria	- / Aaa / -
	Mortgage B	3,200	5,806	81.4%	3.4	33.1%		79.0 % Austria → 52.6% Upper Austria	- / Aaa / -
	Public	496	720	45.1%	19.1	-	-	100.0% Austria → 90.0% Upper Austria	- / Aaa / -
RLB Steiermark	Mortgage	4,116	5352	30.0%	7.5	69.3%		95,2% Austria → 90.0% Styria	- / Aaa / -
	Public	351	581	66.0%	6.6	-	-	100.0% Austria → 92.1% Styria	- / Aaa / -
RLB Vorarlberg*	Mortgage	2,356	2,970	26.0%	9.8	77.0%	54,9%	100.0% Austria → 100.0% Vorarlberg	- / Aaa / -
UniCredit BA	Mortgage	8,175	15,947	95.1%	4.4	74.1%	48.9%	100.0% Austria → 40.5% Vienna	- / Aaa / -
	Public	3,813	6,022	57.9%	3.6	-	-	100.0% Austria → 23.5% Lower Austria	- / Aaa / -
Volksbank Wien	Mortgage	2,663	3,313	24.4%	5.4	94.4%	59.3%	100.0% Austria → 23.2% Lower Austria	- / Aaa / -

Cover pool reporting Q4 2021, * Cover pool reporting Q1 2022;
Source: Issuer, rating agencies, NORD/LB Markets Strategy & Floor Research

Majority of maturities in middle maturity segment

Of the above mentioned 66 EUR benchmark bonds with a total outstanding volume of EUR 36.0bn, the majority will mature in the period from 2026 to 2028, with a peak of EUR 5.5bn in 2028. For investors, a look at yield development is often also relevant. The following graphs and charts are based on the four maturity bands (3y, 5y, 7y, 10y) of the iBoxx EUR Covered Austria. While a significant number of bonds were available in the first three maturity bands, this was not the case for ten-year bonds. With a residual maturity of 9.7 years, only one of BAWAG's bonds came near to this category. The next closest on the shorter side is a public sector covered bond from Hypo NOE (9.1y) while the closest longer residual term is a mortgage Pfandbrief of RLB Steiermark (11.0y). Consequently, the 10y maturity band is defined by the trend at BAWAG and not so much on the overall market.

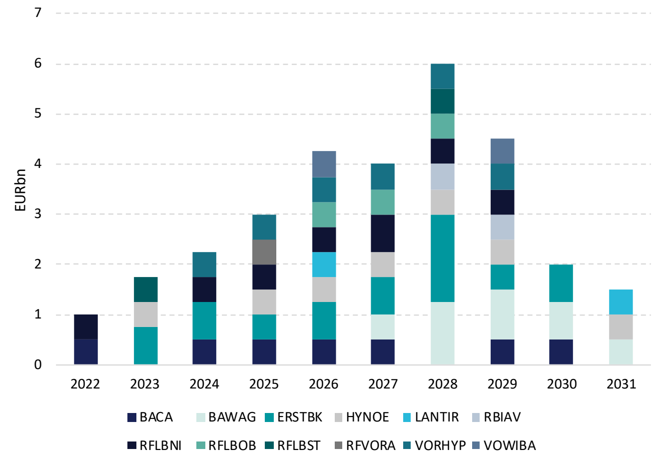
Recent marked increase in Austrian covered bond yields

The development of yields for the yield trends below is mainly influenced by the ECB's monetary policy and the coronavirus pandemic as well as the associated knock-on effects on EUR swap rates. The war in Ukraine that has been ongoing since February 2022 has further accelerated already rising inflation rates, leading to a significant rise in risk-free interest rates. Where the ECB's purchase programs and low interest rates have kept spreads and yields low in the past, the rise in the 10-year yield on German government bonds to over 1% and the two-year yield to a clearly positive figure is also leading to distinctly higher yields, and not only for covered bonds.

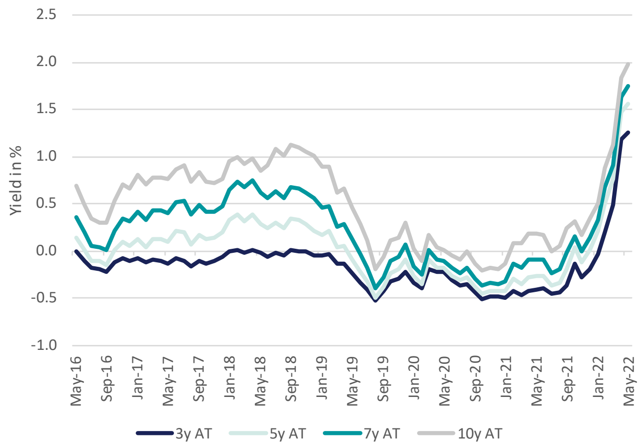
Stronger rise in yields compared to German government bonds

In addition, the yield differential between covered bonds and German government bonds has widened because the Bund-swap spread has risen to a multi-year high. As a result, the yield on Austrian covered bonds has also reached a multi-year high.

AT: EUR BMK maturity profile (EUR bn)



AT: Yield trend (generic, in %)

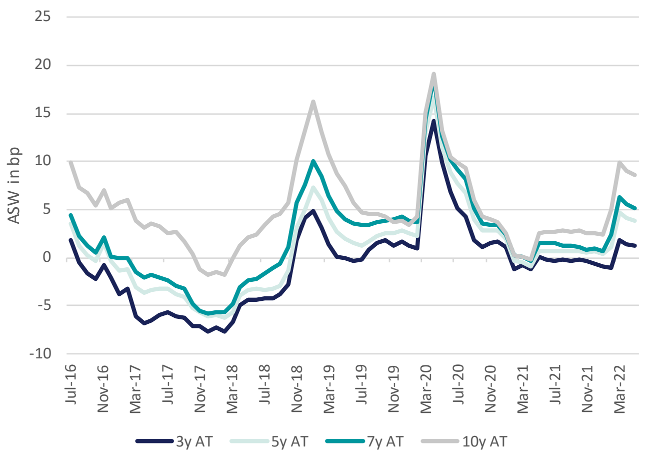


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

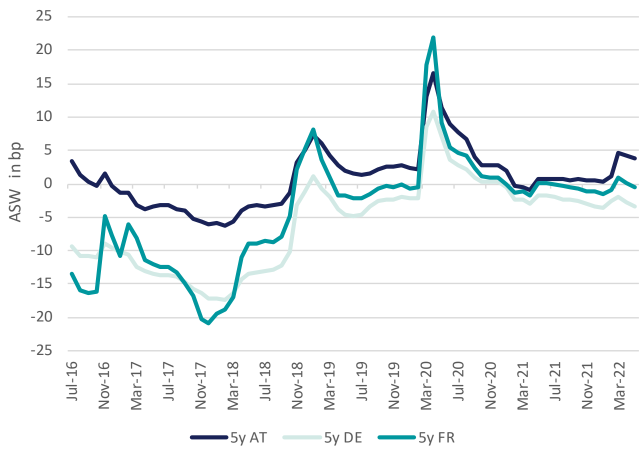
Almost no spread differences in maturities in the meantime

While there was almost no difference in the ASW spreads of Austrian covered bonds in the individual maturity bands about a year ago, greater variance has arisen in recent months, so there are now again 7-8bp differences between 3y and 10y in Austria, compared with just 2bp 12 months ago. When compared with Germany (-3.5bp) and France (-1.6bp), the bonds from Austria have the highest spread level – we have looked at the five-year covered bonds here.

AT: Spread trend (generic, in bp)



Spread trend AT vs. DE vs. FR (5y generic, in bp)



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

Particularities of the banking sector affect the spread level

The fact that the ASW spread level of Austrian covered bonds in itself usually offered a pick-up versus France and Germany can be explained, among other factors, by the special characteristics of the banking sector explained below (exposures in Central, Eastern and Southeastern Europe, share of final maturity mortgages). The proximity and effects of the Ukraine war and the coronavirus pandemic continue to burden the situation. For example, Germany is less dependent on tourism than Austria, so the latter was more negatively affected in times of lockdown. Another reason is that, compared to the other two countries, Austria is a much smaller banking market – often Raiffeisen banks or Volksbanks – making it difficult to build up a covered bond curve of an issuer, so that liquidity is correspondingly lower. The bonds also only have a rating from one agency. From a regulatory point of view, the Pfandbrief Act in Germany applies some more conservative criteria to the cover pool and cover assets. In summary, it can be said that the spread levels of Austrian covered bonds have widened in recent months and underperformed versus Germany and France. The spread curve has become steeper.

Issuers from Austria in the EUR sub benchmark segment

The EUR sub benchmark segment has also recently shown buoyant issuing activity. The issue volume in this sub market for publicly placed covered bonds with a volume of at least EUR 250m, but less than EUR 500m, has so far totalled EUR 3.35bn in 2022 (12 bonds). This figure is currently still below the previous year's level (EUR 4.15bn), but already exceeds placements in this sub market in 2020 (EUR 2.05bn). A significant proportion of the recent momentum has been attributable to issuers from Austria. This jurisdiction accounted for EUR 1.7bn, which is the largest volume at country level to date. Germany ranks second with EUR 1.35bn. In the previous year, significant shares in the sub benchmark segment also came from Austria. In 2021, this amounted to EUR 1.35bn, while only one issuance was recorded in both 2020 (EUR 250m) and 2019 (EUR 300m). In 2022, RLB Vorarlberg most recently appeared on the market with a deal worth EUR 300m (bid-to-cover ratio: 6.5x). Previously, RLB Tirol (EUR 300m, 2.6x), Oberbank (EUR 250m, 3.2x), Hypo Tirol Bank (EUR 300m, 2.7x), Kommunalkredit Austria (KA; EUR 250m, 2.8x) as well as the Wüstenrot building society (EUR 300m, 2.3x) had been active on the market. RLB Tirol approached investors in this sub market for the first time.

ESG covered bonds in Austria

With regard to EUR benchmark covered bonds which fall into an ESG category, the previous year 2021 was characterised by inaugural placements from Austria. In August 2021, BAWAG issued a green EUR benchmark (EUR 500m) from Austria for the first time. Already in March the same year, it was Hypo Tirol Bank that issued the first social covered bond (also EUR 500m) in this sub-segment. Both deals were mortgage-backed bonds. With an ESG share of just under 3%, the market still has potential to catch up with other jurisdictions in terms of ESG issuance. ESG covered bonds are also attributable to the Austrian sub benchmark segment. For example, Oberbank and Oberösterreichische Landesbank placed green inaugural bonds in this sub-segment in 2021, while Kommunalkredit Austria already established a framework for placing social covered bonds in 2017 and placed a bond on the market that matured in July 2021.

Tourism picking up again in Austria, though war in Ukraine dampening outlook

As is the case almost everywhere, the macroeconomic environment in Austria has been defined by the outbreak of the coronavirus crisis in early 2020. Initially, this resulted in a sharp slump in economic activity, which is reflected in a (real) decline in GDP of 6.7% in 2020 and a subsequent strong economic recovery in 2021, with a GDP rise of 4.5% posted in this context. After a rate of 4.5% in 2019, unemployment rose to 6.0% in 2020 and increased slightly again in 2021, which is attributable to the ongoing coronavirus crisis with recurring lockdowns, restrictions and sustained delivery delays. While coronavirus-related restrictions are now being eased, the war in Ukraine has caused renewed supply-side shocks. In this context, the war has had a serious impact on supply prices, especially for energy and food, and is therefore also dampening the growth of private consumption. Tourism is a major pillar of the Austrian economy, but according to the Austrian Institute for Economic Research (WIFO) expectations for 2022 are subdued and characterised by a high level of uncertainty. However, catch-up potential had still been assumed at the end of 2021, as there had been a significant increase in the number of overnight stays and nominal sales. For example, the number of overnight stays in the period from November 2021 to February 2022 was “only” a little under a third down on the pre-crisis level and nominal sales only about a quarter down. The WIFO expects GDP growth of 3.9% for 2022 and 2.0% for 2023, with accommodation and gastronomy expected to account for just over half of the economic growth forecast for 2022. In a presentation from March this year, the Austrian National Bank (ÖNB) took a close look at two alternative scenarios that include a gas supply freeze. As a basic assumption for 2022, year-on-year GDP growth of 3.5% is projected, while inflation is expected to stand at 5.3%. In scenario 1 – no imminent end to the war – GDP growth of 1.9% and an inflation rate of 7.6% is anticipated. In scenario 2 – escalation of the conflict – the projection is for just 0.4% (GDP growth) and 9.0% (inflation) respectively.

Special features of the banking sector in Austria

Compared to its European neighbours, the Austrian banking market is characterised by a number of special features. These include the high proportion of exposures in Central, Eastern and South-eastern Europe (CESEE) as well as foreign currency and repayment vehicle loans. The Austrian National Bank (OeNB) has particularly focused on these areas and is trying to reduce the resultant risk by sharing information and through supervisory measures. Foreign currency loans granted in the past are largely issued with a final maturity, which means only interest is paid for the duration of the loan until the full loan amount is due on maturity. For the repayment of such loans, a repayment vehicle such as insurance is generally involved. For example, life insurance is accrued which on maturity covers the redemption (depending on the total amount earned). Unfavourable exchange rate developments and in the worst case, negative changes to asset prices, can become a challenge for borrowers. This not only results in increased credit risks for lenders, but also contagion risk for the banking system. In addition, there is the funding risk, because currency-congruent deposits are not always available. The financial market crisis in 2008 caused these risks to flourish and the FMA further tightened the first supervisory measures from 2003. This consistent approach led to a continual and marked decline in this type of lending.

Financial Stability Report attests the overall resilience of Austrian banking sector

The ÖNB's latest Financial Stability Report essentially relates to the period until the end of the first half of 2021. According to the Report, Austria's banking sector was impacted by the consequences of the coronavirus crisis, but came through the pandemic relatively well due to the strengthened resilience of banks. In fact, in the year in which the pandemic began, the consolidated operating profit of the banking sector increased by 51% year-on-year. Although interest income declined and operating income was negative, almost all components of operating income and expenses had a positive impact on banks' earnings situations. Due to a decline in pandemic-related administrative costs, operating expenses also decreased. In 2020, banks still had greater loan loss provisions, which had a corresponding impact on earnings, but risk provisioning slowed to 8% of operating profit in the first half of 2021. Net profits after tax recovered year on year, with the return on average (total) assets (RoA) rising from 0.2% (H1 2020) to 0.7% (H1 2021). The ÖNB reports that mortgage lending continues to grow dynamically, which has been accelerated by further rising real estate prices. The lockdowns have enhanced the popularity of homeownership. The ratio of non-performing loans (NPLs) remained at a low 1.9%. As in many other countries, payment moratoria and state guarantees have proved important instruments supporting borrowers during the pandemic.

EBA Risk Dashboard puts Austria in third place for Russia exposure

At the start of April 2022, the EBA published its latest EBA Risk Dashboard with figures as at the end of 2021. The institutions reporting to the EBA also had to comment on their exposure to Russia for the latest assessment. Total direct asset exposure to Russia amounted to EUR 76.2bn at the end of 2021 (June 2021: EUR 70.8bn). The three banking markets with the largest exposures are Italy with EUR 21.8bn (EUR 21.3bn), France with EUR 24.2bn (EUR 20.9bn) and Austria with EUR 16.7bn (EUR 14.5bn). On the liabilities side, deposits amount to EUR 68.6bn (June 2021 EUR 76.1bn), of which EUR 31.0bn (EUR 38.5bn) are attributable to France, EUR 17.3bn (EUR 16.2bn) to Austria and EUR 12.0bn (EUR 12.0bn) to Italy. In the past three years, the capitalisation of Austrian banks was always slightly below the EU average (CET 1 ratio fully loaded; 12/2021 AT: 14.3%, EU: 15.4%). The situation is different with the non-risk-weighted leverage ratio (fully loaded), where domestic banks are above average (December 2021 AT: 6.4%, EU: 5.8%). The NPL ratio was mostly below the average of 1.9% compared to the EU figure of 2.0%. As already mentioned above, the earnings situation in the banking sector recovered somewhat in 2021, most recently leading to a return on equity of 7.9% in Q4 2021 (EU 7.3%), after 2.1% in Q1 2020 (EU 1.3% Q1 2020 and 0.5% Q2 2020; the lowest point since the outbreak of the coronavirus crisis). The earnings situation of banks in Austria is supported by the higher margins from business in CESEE countries, though these also carry risks which are now materialising with the Ukraine war. Nevertheless, this was one of the reasons why RoE did not fall quite as much as the average.

Stricter lending standards to maintain banking sector's resilience

In its 31 March 2022 meeting, Austria's Financial Stability Board (FMSG) announced it has adopted new recommendations "*to contain systemic risks arising from housing mortgages and for setting the size of the countercyclical capital buffer."* The piece also states that "*the level of liquidity that is available within the financial system will suffice to meet any heightened short-term liquidity needs*". With this decision, the FMSG is following the recommendation of the European Systemic Risk Board (ESRB) from February 2022 as well as recommendations issued by the OECD and the IMF. Specifically, this includes advising the FMA to "*enforce upper limits for loan-to-value ratios (90%), debt service-to-income ratios (40%) and loan maturities (35 years)*". This is subject to an exemption bucket of 20% that the FMSG states would give credit institutions adequate operational flexibility. Furthermore, the FMSB adjusts its existing guidance on sustainable mortgage lending to households to include an upper limit for the debt service-to-income ratio. This will be 30% for loans with a maturity of more than five years if the period for which interest rates have been locked in is less than half of the maturity period. The bank has maintained the countercyclical capital buffer at its current level of 0% of risk-weighted assets from 1 July 2022.

Conclusion

In conclusion, the banking market in Austria is characterised by a number of special challenges, but according to the EBA Risk Dashboard and the Financial Stability Report, it presents itself as resilient and also has a solid capital base. The covered bonds in the EUR benchmark segment are rated "Aaa" to a very large extent and offer a pick-up in comparison due to the increased risks of the environment, while the composition of the cover pools (geographical, LTV, excess cover) is absolutely comparable to those from Germany or France.

SSA/Public Issuers
Update on DEUSTD – Joint German cities (bond No. 1)

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

Introduction

In February 2014, six cities from North Rhine-Westphalia placed the largest municipal community bond in Germany to date. It was the first time in Germany that half a dozen cities from one federal state had utilized the capital market jointly. Since then, German cities and municipalities have been looking for new, albeit established forms of financing, as more and more banks have withdrawn from traditional municipal funding via lending in response to the constant fall in yields. In the meantime, six joint NRW municipal bonds have been issued under the NRWGK ticker, of which five are still outstanding. These bonds mature between June 2022 and February 2028 and are worth between EUR 125m-500m.

Inaugural German cities bond – ticker: DEUSTD

At the end of November 2018, the German bond market celebrated another inaugural format. The security issued was a novelty in that it was the first time that cities from different Laender had approached the market collectively. The issuers, Bochum, Celle, Emden, Essen and Saarbrücken raised different amounts, with Essen (EUR 55m), Saarbrücken (EUR 55m) and Bochum (EUR 50m) accounting for the largest shares in the bond, while smaller amounts of the total volume of EUR 200m were attributable to Emden (EUR 25m) and Celle (EUR 15m). Such differences are not unusual in this segment and were also a feature of the joint municipal bonds from NRW. Despite the order book being handsomely oversubscribed at EUR 336m, the bond was not increased. Nevertheless, strong demand supports the appeal of joint city bonds as an asset category. The coupon was set at 1% and, at ms +20bp, the ten-year bond's pricing was a few basis points more expensive for investors than had been expected. The bond was recently quoted at around 95% and the yield at nearly 2% for current purchasers. At one time, the main purchasers were banks and savings banks, with 14% of the bond also being sold to purchasers abroad. In a manner of speaking, this new form of bond transfers the principle of the LANDER bond – a joint issuance between various German federal states – and the BULABO bond – known as the Bund-Laender bond, which matured quite some time ago – to lower administrative levels.

An der Goldgrube: the miracle of Mainz

We start off with a brief market overview. In terms of addresses, this one could not be more fitting. An der Goldgrube 12 (No. 12 The Goldmine), as you are probably already aware, is home to the Mainz-based company BioNTech. Not only did the company give us a reliable vaccine against Covid, it has also provided Mainz's financial officers with a veritable bonanza. In a press release in December 2021, as a result of growth in its trade tax revenue the city of Mainz forecast a surplus of EUR 1,090m, a significant upwards revision of the forecast surplus for the year of EUR 11.6m it had announced on 30 September 2021. Under the MAINZ ticker, the city currently has three FRN's outstanding with volumes of EUR 100m-150m. One matures each year in September starting at the end of Q3 2022. Given the city's surplus, we are not currently expecting any further new issues.

Aid package from government and federal states leads to 2020 surplus despite pandemic

Sticking with the subject of coronavirus, no other topic has dominated world events more since 2020 than the pandemic. Its impact and the results of measures to combat it are also reflected in the budgets of municipalities and local authorities. According to a Bertelsmann report, the economic damage in the thirteen non-city Laender in 2020 amounts to an estimated minimum of EUR 17bn, with trade tax revenue (gross trade tax) down by almost EUR 9bn on 2019. Hardest hit were the regions that generally (under normal circumstances) are the strongest economic performers. However, an aid programme launched by the German government and federal states in spring 2020 averted a comprehensive budget crisis for German municipalities, and a surplus was even achieved for the sixth year in a row. The aid package, which was funded 50:50 by the German government and federal states (key aspect: suspension of the debt brake), provided for a sum of almost EUR 14bn just to offset lower trade tax revenue and increase government participation in the municipal Hartz-IV costs. Reimbursement of the trade tax shortfall alone amounted to EUR 11bn which was more than the actual decrease. In fact, total tax income for the municipalities in 2020 was almost EUR 6bn higher than in the previous year.

ESG a growing topic for municipalities as well

To talk of sustainability bonds as a trend does not do justice to either their volume or significance. It is a fact that sustainability is a growing topic for municipalities as well and we welcome this development. Hanover, the capital of Lower Saxony, paved the way in 2018. It raised EUR 100m in the capital market with a sustainability SSD and invested the proceeds exclusively in municipal building stock, achieving energy and CO_2 savings and facilitating accommodation for refugees and the homeless. Munich followed in 2020 with a social city bond. The volume amounted to EUR 120m and was used to ensure affordable housing. According to a press release the city of Münster also aims to become active in the segment and is preparing to issue a sustainability SSD in September 2022, stating that it would like to focus on the issue of sustainability not only in its investments but also in its funding. The volume is likely to stand at EUR 100m. The projects include new builds and extensions for schools in line with modern energy efficiency standards as well as the fourth treatment stage at the main waste water treatment plant. Other projects involving the electric utility company Stadtnetze Münster GmbH could also be considered here.

Database

In the following section, we look at transactions to date and the corporations involved in the inaugural German cities bond. In so doing, use is made of key economic figures, budget data and information on borrowing obtained from the vdpKommunalScore statistics provided by vdpExpertise GmbH. To avoid inaccuracies caused by different accounting policies (single and double-entry), the income and expenses of corporations using single-entry accounting are adjusted. Imputed variables, transfers from the administrative to the capital budget and target shortfalls in the administrative budget are not taken into consideration. Not all the data for 2020 is available yet for the independent municipality of Saarbrücken.

Economic and structural key metrics

Population	2016	2017	2018	2019	2020
Bochum (independent city)	364,920	365,529	364,628	365,587	364,454
Celle (independent municipality)	69,561	69,706	69,602	69,540	69,399
Emden (independent city)	50,486	50,607	50,195	49,913	49,874
Essen (independent city)	583,084	583,393	583,109	582,760	582,415
Saarbrücken (independent municipality)	179,709	180,966	180,741	180,374	179,349

Population growth rate (%)	2016	2017	2018	2019	2020
Bochum (independent city)	0.05%	0.17%	-0.25%	0.26%	-0.31%
Celle (independent municipality)	-0.27%	0.21%	-0.15%	-0.09%	-0.20%
Emden (independent city)	-0.41%	0.24%	-0.81%	-0.56%	-0.08%
Essen (independent city)	0.08%	0.05%	-0.05%	-0.06%	-0.06%
Saarbrücken (independent municipality)	0.87%	0.70%	-0.12%	-0.20%	-0.57%

GDP per capita in EUR	2016	2017	2018	2019	2020e
Bochum (independent city)	31,705	31,999	33,537	34,862	*34,862**
Celle (independent municipality)	27,937	28,468	29,963	30,582	*30,582**
Emden (independent city)	69,744	68,170	72,732	74,040	*74,040**
Essen (independent city)	40,860	42,227	44,378	45,013	*45,013**
Saarbrücken (independent municipality)	42,983	43,997	44,741	44,769	*44,769**
Germany	38,067	39,438	44,485	41,508	*41,508**

GDP per capita in relation to Germany	2016	2017	2018	2019	2020e
Bochum (independent city)	83.29%	81.14%	82.84%	83.99%	*83,99%**
Celle (independent municipality)	73.39%	72.18	74.01%	73.68%	*73,68%**
Emden (independent city)	183.21%	172.85%	179.65%	178.38%	*178,38%**
Essen (independent city)	107.34%	107.07%	109.62%	108.44%	*108,44%**
Saarbrücken (independent municipality)	112.91%	111.56%	110.51%	107.86%	*107.86%**

Unemployment rate	2016	2017	2018	2019	2020
Bochum (independent city)	10.1%	9.7%	8.9%	8.5%	9.4%
Celle (independent municipality)	7.2%	7.1%	6.2%	5.7%	6.4%
Emden (independent city)	8.7%	8.7%	8.1%	8.2%	9.0%
Essen (independent city)	11.9%	11.4%	10.6%	10.2%	11.0%
Saarbrücken (independent municipality)	10.0%	9.3%	8.6%	8.8%	10.3%
Germany	6.1%	5.7%	5.2%	5.0%	5.9%

Source: vdpKommunalScore, Federal Statistical Office, NORD/LB Markets Strategy & Floor Research

** taken from the previous year*

Structural data

Looking at the key economic and structural data of the cities involved, significant differences are apparent. Firstly, these vary considerably in terms of the number of inhabitants, secondly in terms of their economic performance. Accordingly, Essen is more than 11 times the size of Emden, however with its industrial harbours, shipyards and auto manufacturer VW, the East Frisian city's per capita GDP is by far the highest of the five municipalities. All cities have reported almost constant population figures, with a slightly downward trend. As a result of pandemic year 2020, the unemployment ratio for all cities is higher than in the previous year. The unemployment ratio is higher than the German average in each municipality in the years under review.

Key budget metrics

Current revenues (EUR m)

	2016	2017	2018	2019	2020
Bochum (independent city)	1,138.20	1,266.79	1,390.95	1,413.64	1,446.06
Celle (independent municipality)	200.30	216.85	219.56	201.12	181.71
Emden (independent city)	162.45	154.90	155.67	164.79	166.48
Essen (independent city)	2,607.95	2,932.04	2,981.51	3,042.35	2,948.09
Saarbrücken (independent municipality)	400.34	477.54	469.61	490.02	*490.02**

Current expenses (EUR m)

	2016	2017	2018	2019	2020
Bochum (independent city)	1,176.20	1,244.89	1,269.54	1,282.65	1,339.16
Celle (independent municipality)	207.60	214.30	204.75	181.61	148.05
Emden (independent city)	150.74	152.71	155.60	157.47	165.64
Essen (independent city)	2,649.39	2,668.74	2,756.01	2,832.43	2,973.15
Saarbrücken (independent municipality)	406.40	426.82	435.06	450.77	*450.77**

Of which interest payments (EUR k)

	2016	2017	2018	2019	2020
Bochum (independent city)	20,715.52	23,927.13	19,379.62	18,706.68	19,831.58
Celle (independent municipality)	5,607.89	3,332.64	3,850.27	3,711.59	3,308.48
Emden (independent city)	-1,052.14	-931.26	-1,790.30	-736.13	-1,401.49
Essen (independent city)	47,778.28	42,294.43	37,918.76	31,330.51	25,627.55
Saarbrücken (independent municipality)	21,253.25	17,752.16	13,205.11	11,761.64	*11,761.64**

Interest payments as a % of current revenues

	2016	2017	2018	2019	2020
Bochum (independent city)	1.82%	1.89%	1.39%	1.32%	1.37%
Celle (independent municipality)	2.80%	1.54%	1.75%	1.85%	1.82%
Emden (independent city)	-0.65%	-0.60%	-1.15%	-0.45%	-0.84%
Essen (independent city)	1.83%	1.44%	1.27%	1.03%	0.81%
Saarbrücken (independent municipality)	5.31%	3.72%	2.81%	2.20%	*2.20%**

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

** taken from the previous year*

Key budget metrics

The differences in population mean that there are major differences in the size of the cities' budgets. As expected, Essen dominates and here both income and expenses were higher in 2020 than in the four other municipalities combined. As far as interest payments are concerned, it is striking that these are far higher as a percentage of current income in Saarbrücken than in the other cities. The reverse is true in Emden, which only reported interest income in the period under review. Generally, with the exception of Bochum, all the issuers of the German cities bond are paying less interest, in some cases significantly less.

Debt metrics

Total debt (EUR m)

	2016	2017	2018	2019	2020
Bochum (independent city)	1,789.39	1,815.19	1,757.76	1,722.45	1,777.88
Celle (independent municipality)	254.54	254.73	253.57	231.30	223.67
Emden (independent city)	162.86	176.42	210.66	199.03	198.90
Essen (independent city)	3,660.41	3,456.38	3,355.54	3,357.57	3,034.72
Saarbrücken (independent municipality)	1,429.02	1,397.46	1,386.75	1,379.02	*1,379.02**

Debt per capita (EUR)

	2016	2017	2018	2019	2020
Bochum (independent city)	4,903.51	4,965.92	4,820.68	4,711.45	4,878.19
Celle (independent municipality)	3,659.26	3,654.38	3,643.14	3,918.93	3,879.37
Emden (independent city)	3,225.84	3,486.02	4,196.84	3,987.62	3,988.04
Essen (independent city)	6,277.68	5,924.61	5,754.57	5,761.50	5,210.57
Saarbrücken (independent municipality)	7,951.87	7,722.25	7,672.59	7,645.36	*7,645.36**

Debt as a % of total revenues

	2016	2017	2018	2019	2020
Bochum (independent city)	150.21%	138.14%	122.02%	117.55%	118.70%
Celle (independent municipality)	123.15%	111.20%	111.31%	132.17%	136.56%
Emden (independent city)	95.22%	111.72%	131.83%	117.11%	114.19%
Essen (independent city)	136.81%	114.50%	109.39%	106.44%	92.34%
Saarbrücken (independent municipality)	353.56%	288.36%	292.28%	276.22%	*276,22%**

Share of Kassenkredite as a % of debt of the original administration

	2016	2017	2018	2019	2020
Bochum (independent city)	36.37%	38.13%	28.67%	26.75%	25.38%
Celle (independent municipality)	37.28%	37.10%	31.12%	24.43%	22.35%
Emden (independent city)	0.00%	0.00%	8.77%	0.00%	0.00%
Essen (independent city)	56.47%	51.19%	49.81%	48.46%	42.09%
Saarbrücken (independent municipality)	70.27%	68.33%	61.91%	61.47%	*61.47%**

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

** taken from the previous year*

NORD/LB

Key debt metrics

Debt in the five cities under consideration ranges between 90% and 140% of income for Bochum, Celle, Emden and Essen. At 276.2% Saarbrücken is an outlier in this respect, although this figure is the lowest in the period under consideration. Emden and Essen improved their year-on-year debt ratio in 2020, and financial officers in Celle, Emden and Essen succeeded in reducing the absolute amount. As explained in the introduction, we do not have any current figures for Saarbrücken for 2020. Per capita debt was up on the previous year for Bochum and Emden. In Essen this metric decreased by somewhat over EUR 500 per capita as a result of the reduction in total debt. Emden had no short-term liabilities in the form of Kassenkredite at all other than in 2018, whereas these loans account for over 60% of the debts of the original administration in Saarbrücken.

Explanation of the following table

In the following section we take a look at transactions in the municipal sub-segment, especially joint municipal bonds from North Rhine-Westphalia. Among other aspects, the table does not include Schuldscheindarlehen (SSD) as issued by the city of Hanover. In 2018, the city was the first German municipality to issue a green, social SSD (EUR 100m). In the interests of completeness and transparency, the table also includes a few bonds that have matured in the meantime (crossed out) so that a certain quantity of data can be consulted when comparing pricing. We should also mention the redemption bond (EUR 50.1m) issued by Hanover in April 2022 although this has not been included in the table due to the lack of comparability resulting from its structure.

Municipal bonds: issuance history

Issuer	Coupon	Timing	ISIN	Initial Maturity	Initial Spread	Volume
~~Hanover~~	~~Fix~~	~~23.11.09~~	~~DE0001372837~~	~~10.0y~~	~~ms +25bp~~	~~180m*~~
~~Essen~~	~~Fix~~	~~22.02.10~~	~~DE000A1C9269~~	~~5.0y~~	~~ms +13bp~~	~~200m~~
~~Mainz~~	~~Float~~	~~12.11.13~~	~~DE000A1YCRQ2~~	~~5.0y~~	~~FRN~~	~~125m~~
Nuremberg-Würzburg	Fix	08.05.13	DE000A1TNFP6	10.0y	ms +38bp	100m
~~NRW Cities #1~~	~~Fix~~	~~06.02.14~~	~~DE000A11QCH9~~	~~4.0y~~	~~ms +35bp~~	~~500m**~~
Ludwigshafen	Fix	27.11.14	DE000A13SLB5	10.0y	ms +41bp	150m
NRW Cities #2	Fix	19.02.15	DE000A14KP45	10.0y	ms + 50bp	500m
NRW Cities #3	Fix	10.06.15	DE000A161UQ4	7.0y	ms +40bp	250m
Mainz	Float	16.09.15	DE000A168YZ2	7.0y	FRN	150m
~~Dortmund~~	~~Float~~	~~09.03.16~~	~~DE000A2AAL07~~	~~6.0y~~	~~FRN~~	~~120m~~
Mainz	Float	27.04.16	DE000A2BPUH3	7.4y	FRN	125m
Bochum	Fix	11.05.16	DE000A2AATG1	10.0y	ms +50bp	115m
NRW Cities #4	Fix	31.05.16	DE000A2AAWM3	10.0y	ms +49bp	125m
Mainz	Float	16.02.17	DE000A2DADA2	7.6y	FRN	100m
Dortmund	Fix	22.03.17	DE000A2E4YF9	10.0y	ms +35bp	140m
NRW Cities #5	Fix	04.04.17	DE000A2DALY5	10.0y	ms +38bp	250m
Ludwigshafen	Fix	28.11.17	DE000A2GSSS7	10.0y	ms +22bp	150m
NRW Cities #6	Fix	20.02.18	DE000A2G8VA5	10.0y	ms +24bp	250m
~~Mainz~~	~~Float~~	~~07.11.18~~	~~DE000A2NBJM1~~	~~2.3y~~	~~FRN~~	~~125m~~
Joint Cities (DEUSTD)	Fix	28.11.18	DE000A2LQRG8	10.0y	ms +20bp	200m
Dortmund	Fix	14.10.19	DE000A2YN264	10.0y	ms +17bp	130m
Munich	Fix	11.02.20	DE000A254SP3	12.8y	ms +15bp	120m
Bochum	Fix	11.11.20	DE000A289FM3	10.0y	ms +23bp	250m

*retrospectively tapped by EUR 75m. **retrospectively tapped by EUR 100m

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

Overview – municipal bonds

Looking back provides us with important key figures for the six joint municipal bonds issued by North Rhine-Westphalia to date under the NRWGK ticker.

Launched in February 2014

The bond issued by the six cities, which had a maturity of four years at the time, carried a coupon of 1.125% p.a. However, the target benchmark volume was not achieved initially. The financial officers also hoped (justifiably) to attract a wider group of investors by working together. A total of 93% of the volume was sold in Germany, mostly to savings banks, banks and insurance companies.

Joint NRW municipal bonds (ticker: NRWGK)

Joint municipal bond #1 (already reached maturity)

City	Share	Volume
Dortmund	20%	EUR 400m
Essen	28%	**Coupon**
Herne	8%	1.125%
Remscheid	18%	**Maturity**
Solingen	6%	4 years
Wuppertal	20%	**Tap**
Total	**100%**	Yes
Issued: February 2014		EUR +100m

Joint municipal bond #2

City	Share	Volume
Bochum	25%	EUR 500m
Essen	40%	**Coupon**
Herne	10%	1.125%
Remscheid	5%	**Maturity**
Solingen	10%	10 years
Wuppertal	10%	**Tap**
Total	**100%**	No
Issued: February 2015		

Joint municipal bond #3

City	Share	Volume
Bielefeld	20%	EUR 250m
Essen	20%	**Coupon**
Gelsenkirchen	24%	1.25%
Hagen	16%	**Maturity**
Remscheid	20%	7 years
Total	**100%**	**Tap**
Issued: June 2015		No

Joint municipal bond #4

City	Share	Volume
Hagen	30%	EUR 125m
Remscheid	30%	**Coupon**
Solingen	40%	1.00%
Total	**100%**	**Maturity**
		10 years
		Tap
Issued: May 2016		No

Joint municipal bond #5

City	Share	Volume
Essen	42%	EUR 250m
Gelsenkirchen	30%	**Coupon**
Remscheid	16%	1.00%
Solingen	12%	**Maturity**
		10 years
Total	**100%**	**Tap**
Issued: April 2017		No

Joint municipal bond #6

City	Share	Volume
Essen	44%	EUR 250m
Hagen	16%	**Coupon**
Herne	16%	1.375%
Remscheid	8%	**Maturity**
Solingen	16%	10 years
Total	**100%**	**Tap**
Issued: February 2018		No

Sources: Issuers, NORD/LB Markets Strategy & Floor Research

Interim conclusion: municipalities cannot become insolvent

The fact that risks were more diversified was attractive to investors: in the first joint municipal bond 28% of the volume went to Essen, while a fifth went to Dortmund and Wuppertal each. The large Ruhr cities of Dortmund and Essen, in particular, had already accumulated significant liabilities at this time. However, it should be noted as an interim conclusion that, in principle, insolvency is not an option for municipalities. Insolvency on the part of municipalities is precluded by section 128 (2) of the GO NRW (Municipalities Code for North Rhine-Westphalia) and section 12 (1) of the Insolvency Code. Ultimately, the federal state is liable for the municipalities and the German government for the federal states under the principle of federal loyalty (implied).

Subsequent transactions

The NRW cities bond #1, which was issued on 6 February 2014, was successfully tapped by EUR 100m in November in the same year and, as a result, achieved belated benchmark format. Following the successful debut of NRWGK #1, its successor transaction (NRWGK #2) was also placed successfully on the capital market a year later. “Only” five municipalities then issued the third joint cities bond. The transaction in June 2015 raised EUR 250m for seven years, with the largest share being allocated to Gelsenkirchen (24%) this time. Once again, the transaction was primarily placed with German credit institutions. The 10y deal at the end of May 2016 raised EUR 125m. The fact that there were only three participants, namely Hagen (30%), Remscheid (30%) and Solingen (40%), was a novelty. It was at this point, at the latest, that the segment of large volume (joint) city bonds was identified outright as an independent asset category in the capital market. At the end of March 2017, it was said that four cities would again join forces for the fifth joint transaction. An amount of EUR 250m (no-grow) and a maturity of ten years at pricing of ms +38bp was also mentioned. A total of 12% of the issuance volume was placed in neighbouring Benelux countries, with a total of 57% ending up on the books of commercial banks and savings banks, while institutional investors bought 39%. Ludwigshafen, Dortmund, Bochum and Mainz must also be mentioned here – the latter giving preference to FRN on the market.

Transactions in 2018

In 2018, placement of the sixth NRW cities bond was already pending: the cities of Essen, Hagen, Herne, Remscheid and Solingen jointly raised EUR 250m (no-grow) for a period of ten years. The first joint NRWGK also matured on 13 February 2018. While we do not examine SSD here (see Hanover Green & Social), the city of Mainz also issued a floater in November, which had a volume of EUR 125m and matured in March 2021. However, the highlight of 2018 was the Joint German cities bond No. 1, which was also issued in November.

Transactions since 2019

The municipal bonds segment of the market was rather quiet in 2019. At least we could report a ten-year IHS in the amount of EUR 130m issued by the city of Dortmund in mid-October. The aforementioned bond issued by the city of Hanover in 2009 also matured at the beginning of December that year. Fresh life was breathed into the municipal bond segment again in 2020 with the city of Munich tapping the capital market with a 12y EUR 120m social bond in February. The funds raised are intended to ensure affordable housing. The same year, the city of Bochum also issued a bond, raising EUR 250m, with the order book for the deal reaching EUR 345m. Since then it has been quiet again in the primary market for municipal bonds. Only Hanover has recently been active, issuing a EUR 50.1m redemption bond on 22 April 2022. However, we are banking on a continuation of the DEUSTD ticker, which would have a particular flavour again – depending, in particular, on the cities involved.

Each city is liable according to its share

The scenario in which a debtor defaults on repayment of the bond or becomes insolvent is presumably of interest. The rules governing liability among the issuing cities are as follows: the bond's joint debtors are the respective cities involved, which are only liable in line with their share of the bond. Interest payments must also be made in proportion to these shares. The creditworthiness or rating of cities will not be affected if one of the issuing cities gets into financial difficulties during the term of the bond or at the repayment date. For the reasons mentioned above, they are not subject to "financial problems" (in the narrower sense). Furthermore, municipalities are not rated, as is the case for all joint cities bonds. This construct is also the crux of the matter for some investors, as often each participant in the issuer group necessitates a separate check and/or due diligence, and the participating municipalities frequently change from bond to bond.

Conclusion and outlook

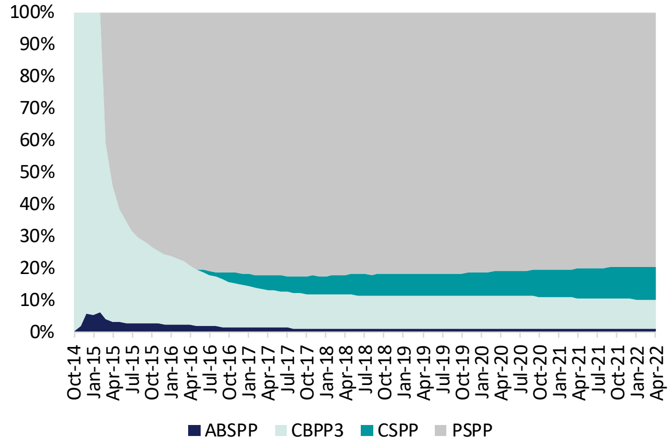
Cities or municipalities are likely to combine forces and issue joint bonds in future too. One of the crucial arguments for issuers is likely to be the fact that they will appeal to a broader spectrum of investors by issuing comparatively larger amounts, which is, in turn, likely to have a positive impact on funding costs. Furthermore, the regulatory burden associated with a city bond and the associated costs are often too much for the cities involved alone. SSDs, which have advantages compared with a bearer bond due to their streamlined documentation and the fact that they are both familiar to and popular with investors, therefore provide a sensible alternative. Although international investors have also become far more aware of SSDs in recent years, they are still not likely to be as familiar as traditional bonds. Even though the amount of the first cities bond encompassing cities from several Laender was not substantial at EUR 200m, the mix of municipalities is intriguing. It then became clear that the combination of cities and municipalities would likely continue to work across federal state boundaries in future. Nevertheless, with regard to ESG topics, many municipalities without an existing suitable framework are likely to face similar obstacles in the future. In practice, inflexible municipal financial laws, in some cases, could pose a few challenges to this approach in the early stages, which would have to be resolved for a transaction to succeed. Münster, for example, has been working on this since September 2021. In addition, jointly issued bonds frequently pose a bureaucratic burden for institutional investors as, depending on their internal guidelines, they require a separate credit line for each municipality. On the whole, ESG should provide fresh momentum since many municipalities are likely to be battling similar issues when seeking to implement future-proofing initiatives.

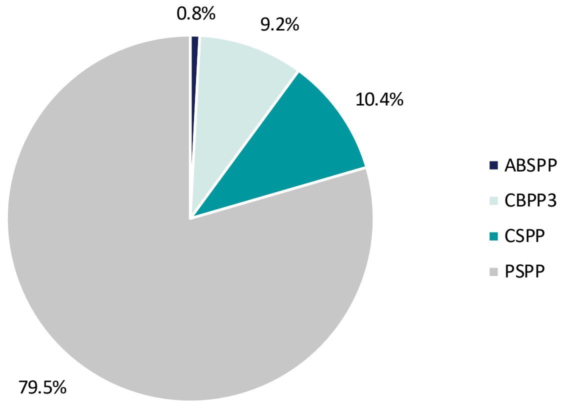
ECB tracker

Asset Purchase Programme (APP)

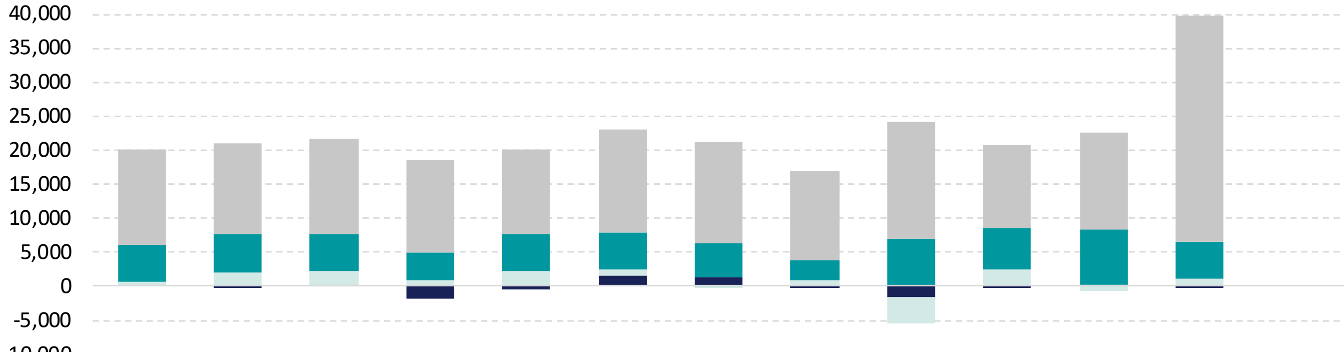
	ABSPP	CBPP3	CSPP	PSPP	APP
Mar-22	26,979	295,849	330,605	2,525,610	3,179,043
Apr-22	26,691	296,924	336,066	2,558,848	3,218,529
Δ	-289	+1,074	+5,461	+33,238	+39,484

Portfolio structure





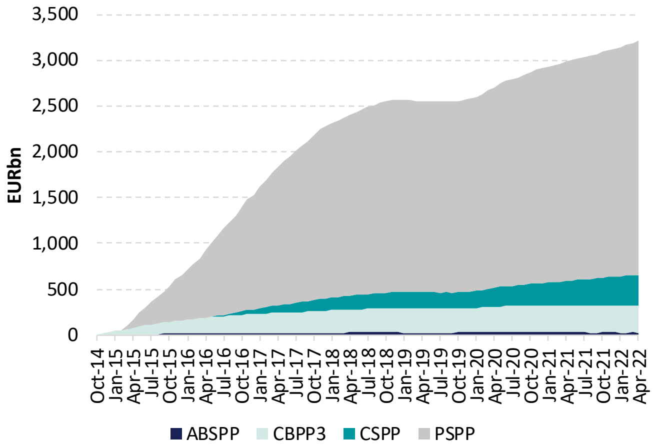
Monthly net purchases (in EURm)



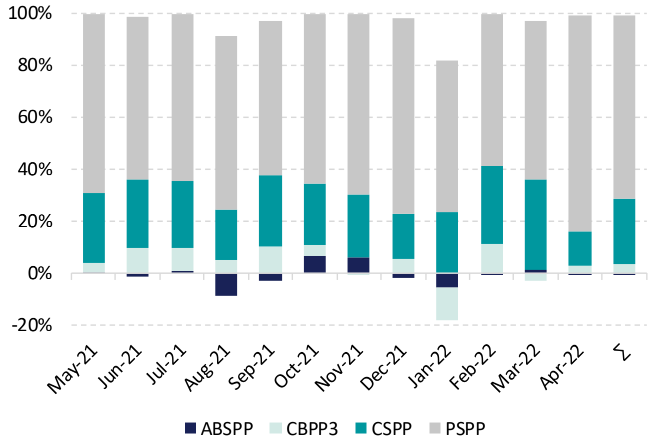
	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	∑
APP	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,929	39,484	260,548
PSPP	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	12,095	14,172	33,238	186,861
CSPP	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	6,970	6,272	8,042	5,461	66,399
CBPP3	686	2,037	2,011	999	2,184	1,008	-12	942	-3,761	2,376	-606	1,074	8,938
ABSPP	88	-319	141	-1,749	-538	1,490	1,255	-342	-1,663	-45	321	-289	-1,650

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

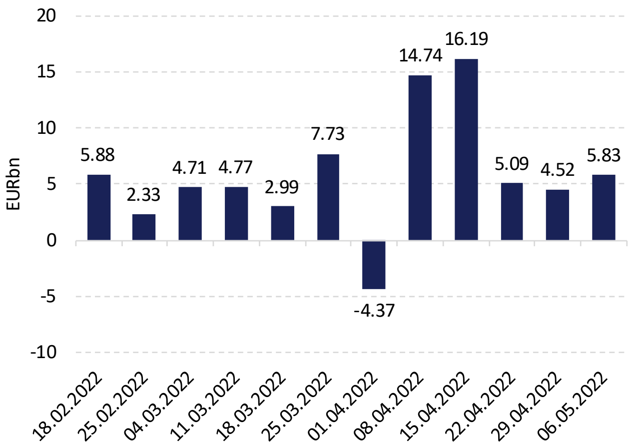
Portfolio development



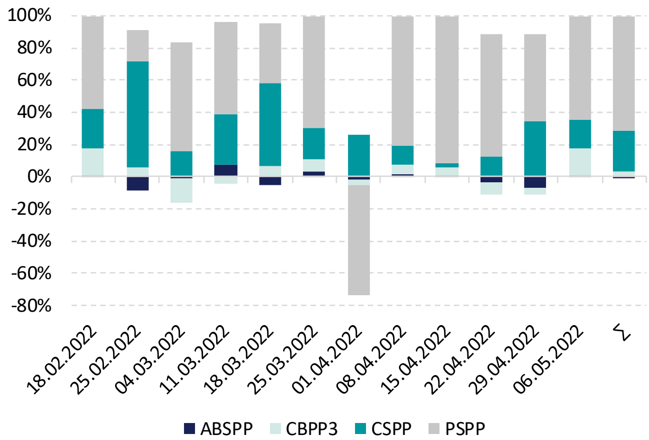
Distribution of monthly purchases



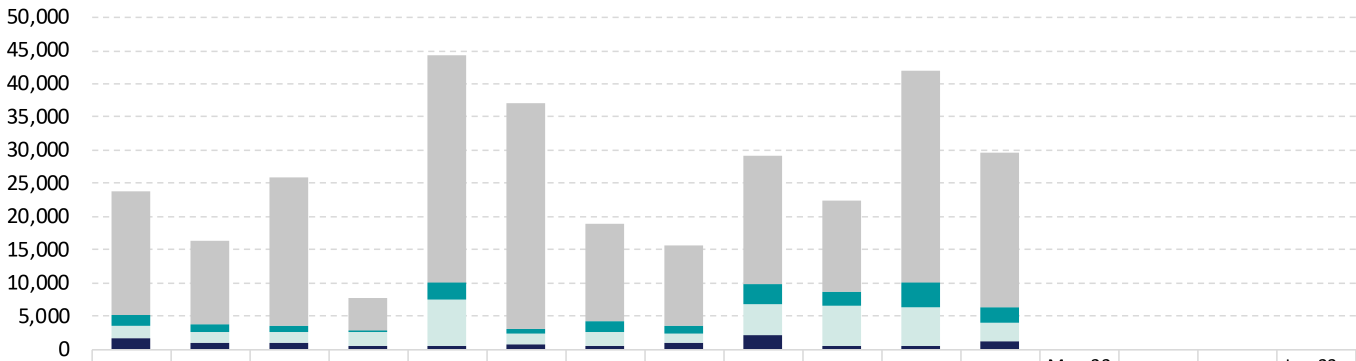
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

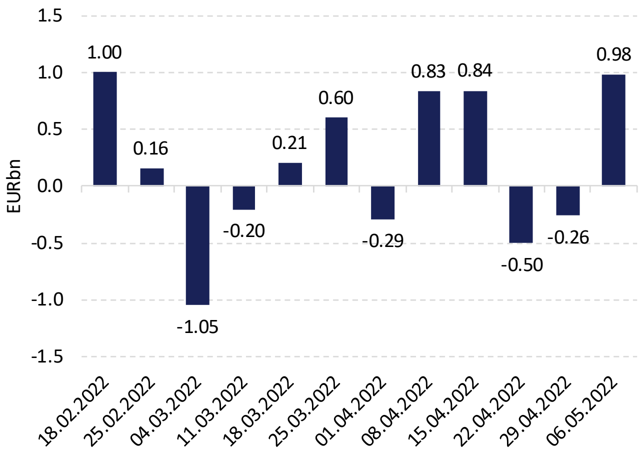


	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-22 - Apr-23	2021	2022	Jan-23 - Apr-23
APP	23,867	16,424	25,834	7,640	44,401	36,993	18,833	15,640	29,260	22,434	42,048	29,692	313,066	247,069	297,726	123,434
PSPP	18,778	12,638	22,304	4,841	34,354	34,003	14,669	12,016	19,469	13,705	32,033	23,376	242,186	188,494	228,491	88,583
CSPP	1,502	1,237	961	96	2,564	674	1,557	1,266	2,899	2,158	3,752	2,217	20,883	17,134	16,785	11,026
CBPP3	1,866	1,582	1,629	2,227	6,873	1,648	2,165	1,485	4,786	5,938	5,631	2,903	38,733	30,143	41,237	19,258
ABSPP	1,721	967	940	476	610	668	442	873	2,106	633	632	1,196	11,264	11,298	11,213	4,567

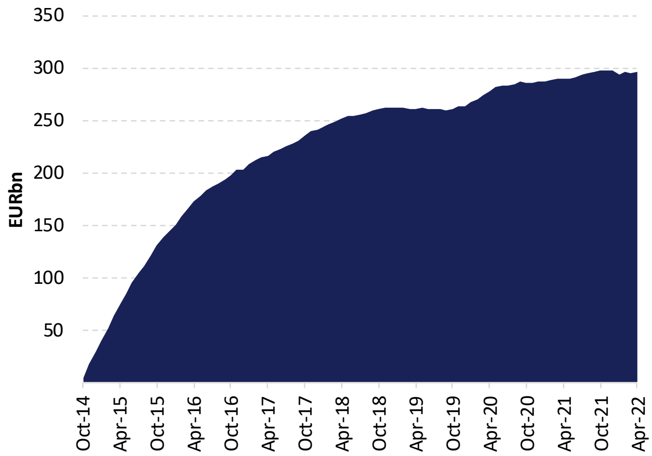
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

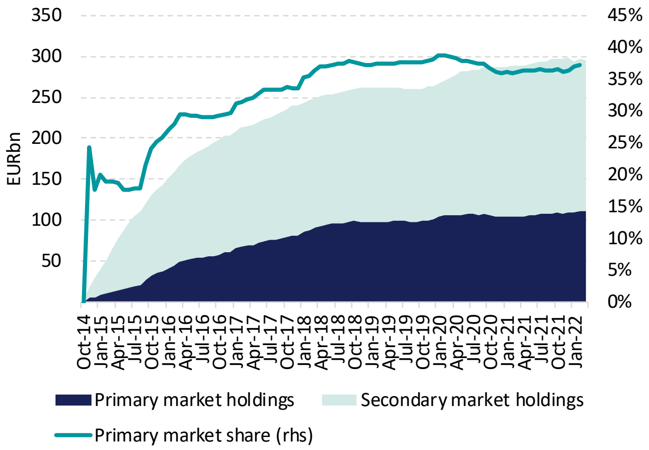
Weekly purchases



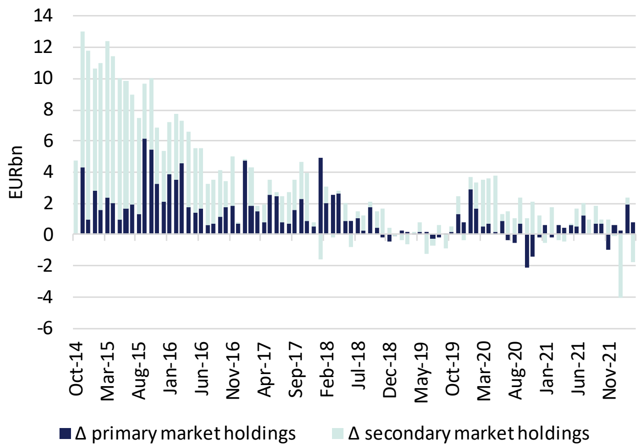
Development of CBPP3 volume



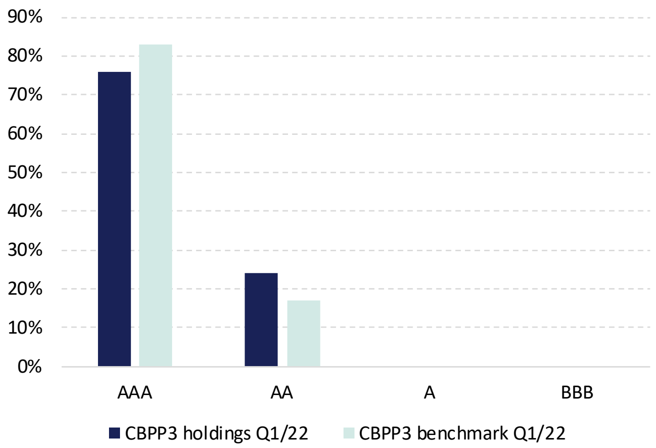
Primary and secondary market holdings



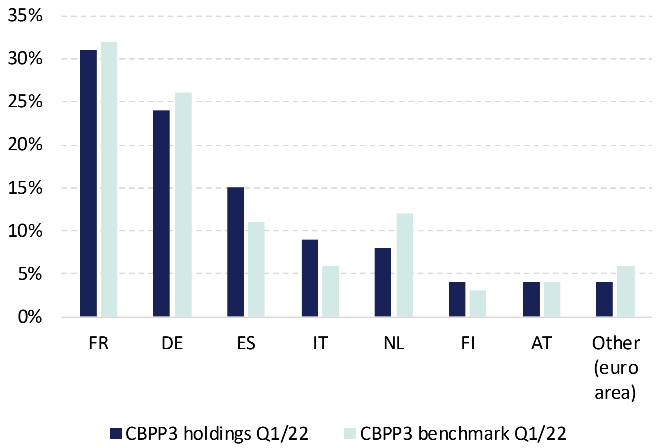
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



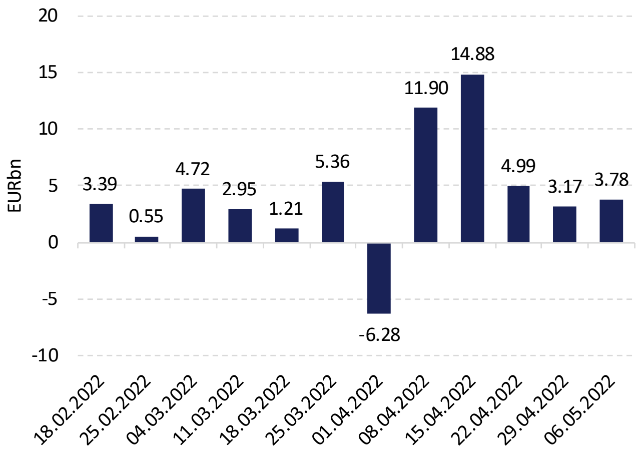
Distribution of CBPP3 by country of risk



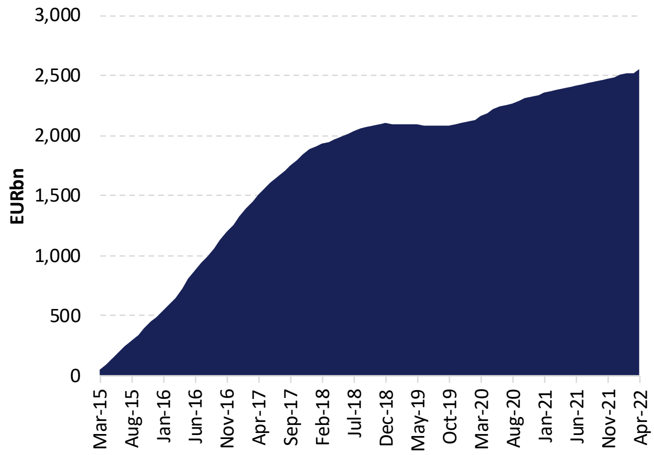
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



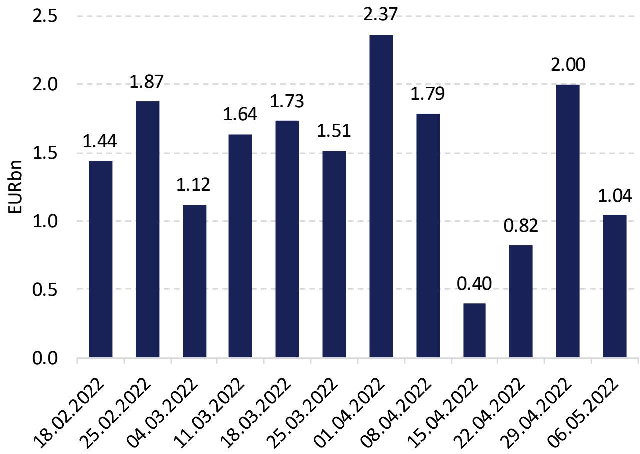
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Purchases (EURm)	Expected purchases (EURm)[2]	Difference (EURm)	Avg. time to maturity[3] (in years)	Market average[3] (in years)[3]	Difference (in years)
AT	2.7%	75,622	73,141	2,481	7.5	7.6	-0.1
BE	3.4%	92,910	91,042	1,868	8.0	10.2	-2.2
CY	0.2%	4,446	5,377	-931	9.9	8.8	1.1
DE	24.3%	655,956	658,753	-2,797	6.6	7.6	-1.0
EE	0.3%	429	7,039	-6,610	9.2	7.5	1.7
ES	11.0%	314,676	297,986	16,690	8.0	8.4	-0.4
FI	1.7%	42,502	45,902	-3,400	6.9	7.7	-0.8
FR	18.8%	528,080	510,388	17,692	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,333	42,316	-983	8.5	10.1	-1.6
IT	15.7%	442,389	424,530	17,859	7.1	7.9	-0.8
LT	0.5%	5,786	14,463	-8,677	10.2	10.6	-0.4
LU	0.3%	3,680	8,232	-4,552	5.6	7.2	-1.7
LV	0.4%	3,661	9,737	-6,076	11.3	10.4	0.9
MT	0.1%	1,411	2,621	-1,210	9.5	9.2	0.3
NL	5.4%	129,120	146,448	-17,328	7.7	9.0	-1.4
PT	2.2%	53,800	58,487	-4,687	7.0	7.2	-0.2
SI	0.4%	10,571	12,032	-1,461	9.9	10.2	-0.3
SK	1.1%	17,800	28,618	-10,818	8.2	8.3	-0.1
SNAT	10.0%	283,732	270,790	12,942	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,707,903**	**2,707,903**	**0**	**7.3**	**8.2**	**-0.9**

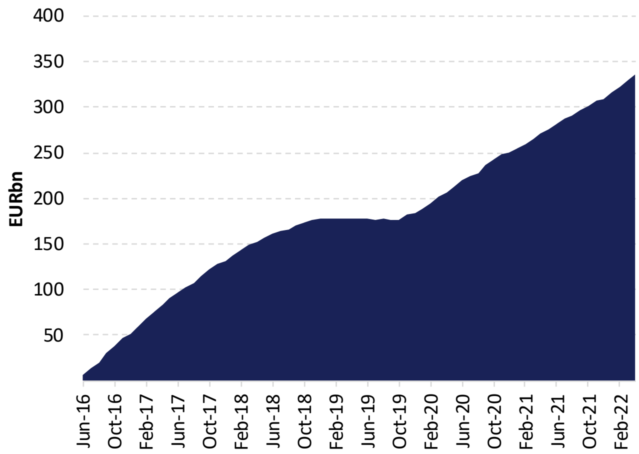
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

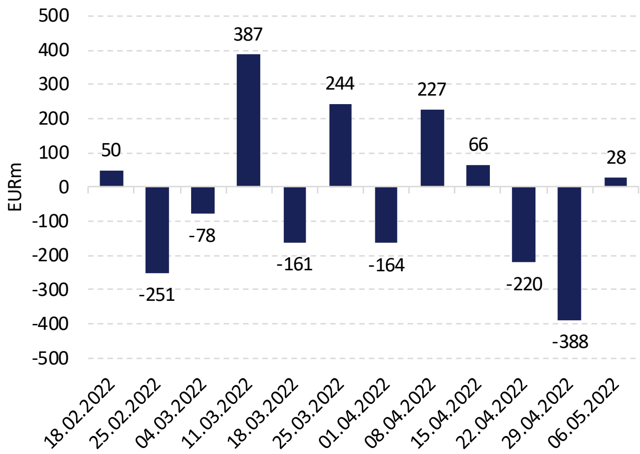


Development of CSPP volume

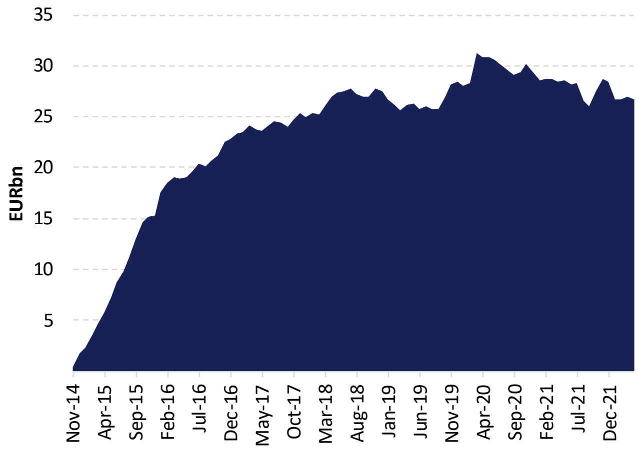


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



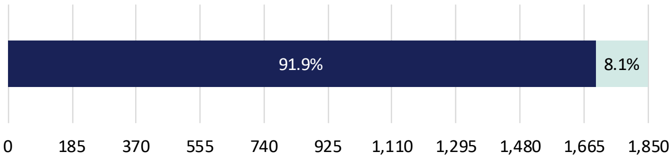
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

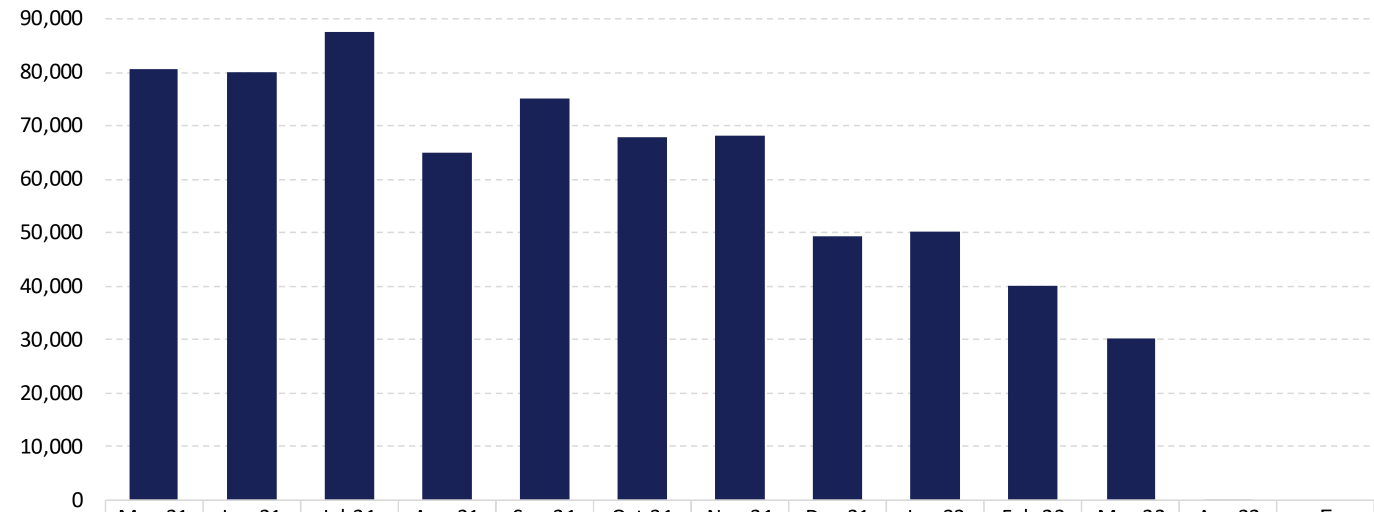
Holdings (in EURm)

	PEPP
Mar-22	1,718,076
Apr-22	1,718,071
Δ (net purchases)	-4

Invested share of PEPP envelope (in EURbn)

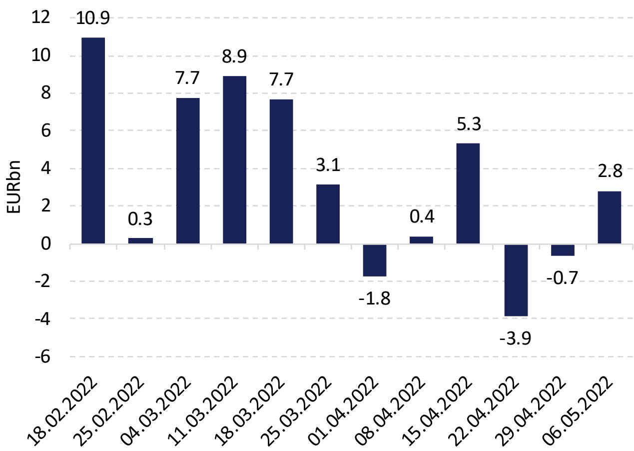


Monthly net purchases (in EURm)

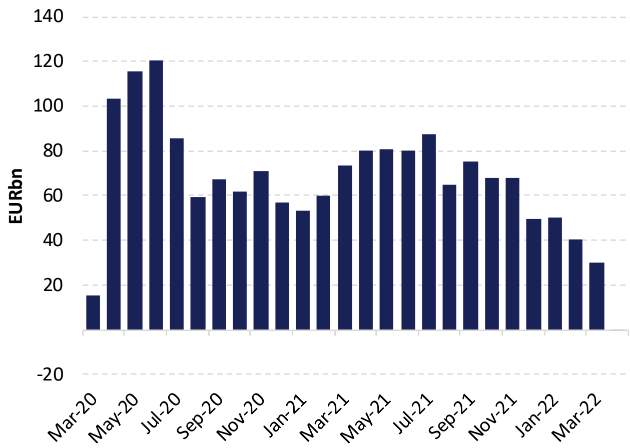


	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	∑
PEPP	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	-4	694,308

Weekly purchases



Development of PEPP volume

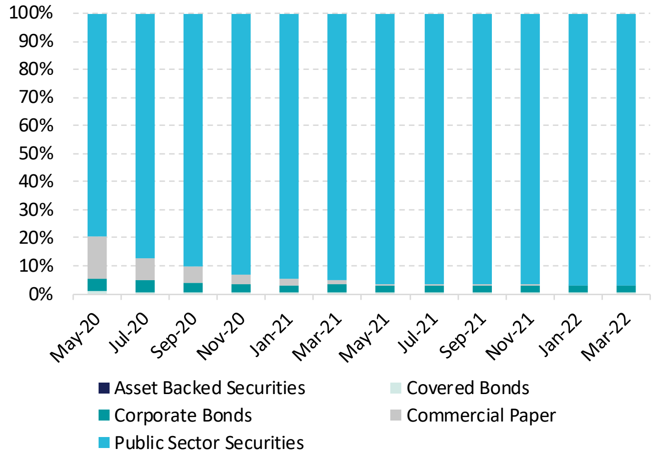


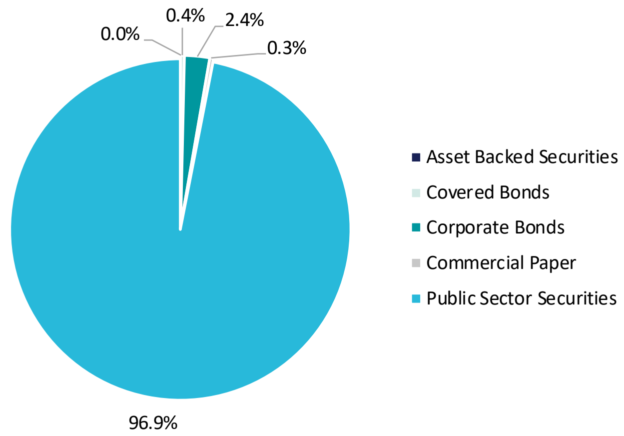
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

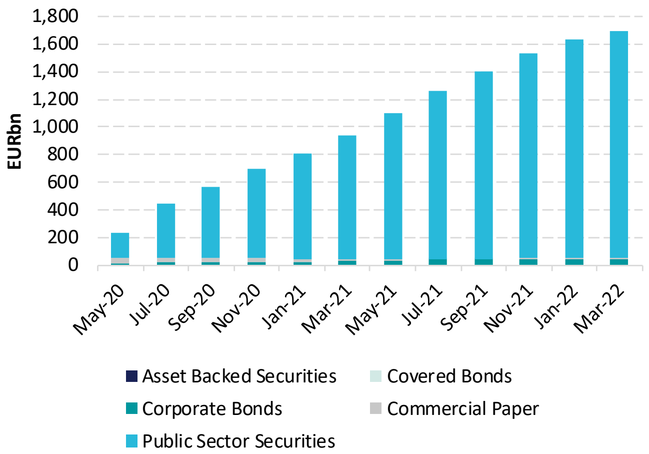
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Mar-22	0	6,067	40,313	5,862	1,644,247	1,696,489
Δ (net purchases)	0	0	+48	+2,007	+68,342	+70,398

Portfolio structure

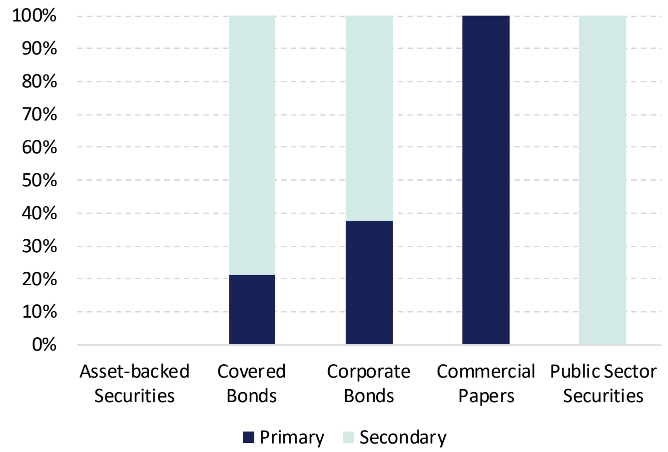




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

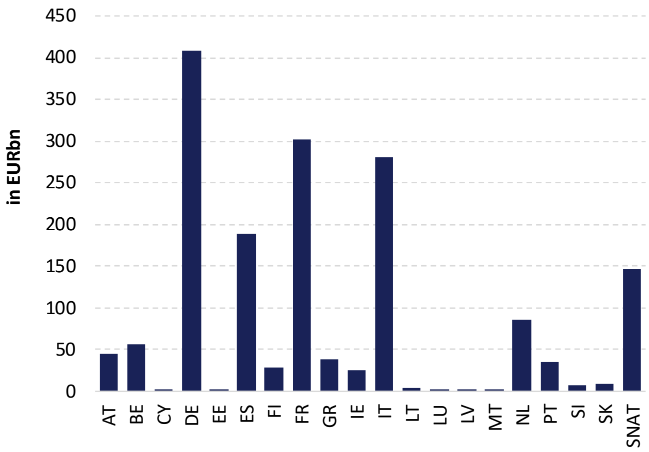
Mar-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Holdings in EURm	0	0	1,298	4,769	15,162	25,151	5,862	0
Share	0.0%	0.0%	21.4%	78.6%	37.6%	62.4%	100.0%	0.0%

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

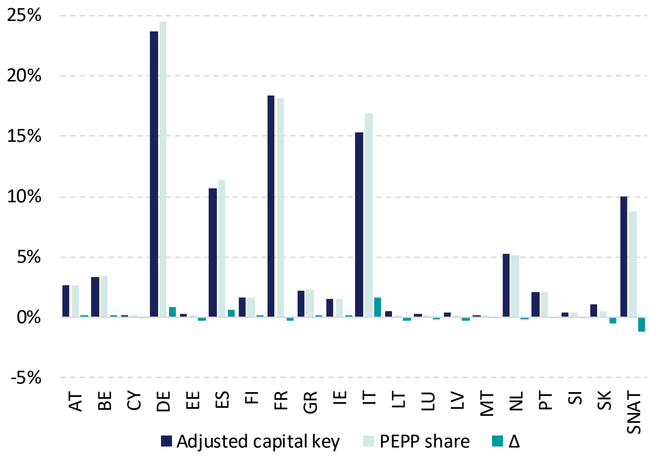
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	43,980	2.6%	2.6%	0.0%	7.9	7.1	0.8
BE	56,797	3.3%	3.4%	0.1%	6.6	9.1	-2.5
CY	2,633	0.2%	0.2%	0.0%	8.6	8.5	0.1
DE	408,941	23.7%	24.6%	0.8%	6.3	6.8	-0.4
EE	256	0.3%	0.0%	-0.2%	8.2	6.6	1.6
ES	189,664	10.7%	11.4%	0.7%	7.7	7.6	0.1
FI	28,183	1.7%	1.7%	0.0%	6.8	8.0	-1.2
FR	302,287	18.4%	18.1%	-0.2%	8.0	7.6	0.4
GR	38,504	2.2%	2.3%	0.1%	8.7	9.5	-0.7
IE	25,532	1.5%	1.5%	0.0%	9.2	9.3	-0.1
IT	281,026	15.3%	16.9%	1.6%	7.1	6.9	0.1
LT	3,215	0.5%	0.2%	-0.3%	10.3	9.9	0.4
LU	1,833	0.3%	0.1%	-0.2%	6.5	6.2	0.3
LV	1,887	0.4%	0.1%	-0.2%	8.7	8.9	-0.2
MT	610	0.1%	0.0%	-0.1%	11.1	9.2	1.9
NL	85,172	5.3%	5.1%	-0.2%	7.8	8.4	-0.6
PT	34,742	2.1%	2.1%	0.0%	6.8	7.2	-0.3
SI	6,499	0.4%	0.4%	0.0%	9.3	9.3	-0.1
SK	7,966	1.0%	0.5%	-0.6%	8.9	8.3	0.6
SNAT	145,950	10.0%	8.8%	-1.2%	10.3	8.5	1.8
Total / Avg.	**1,665,676**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**7.5**	**0.1**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



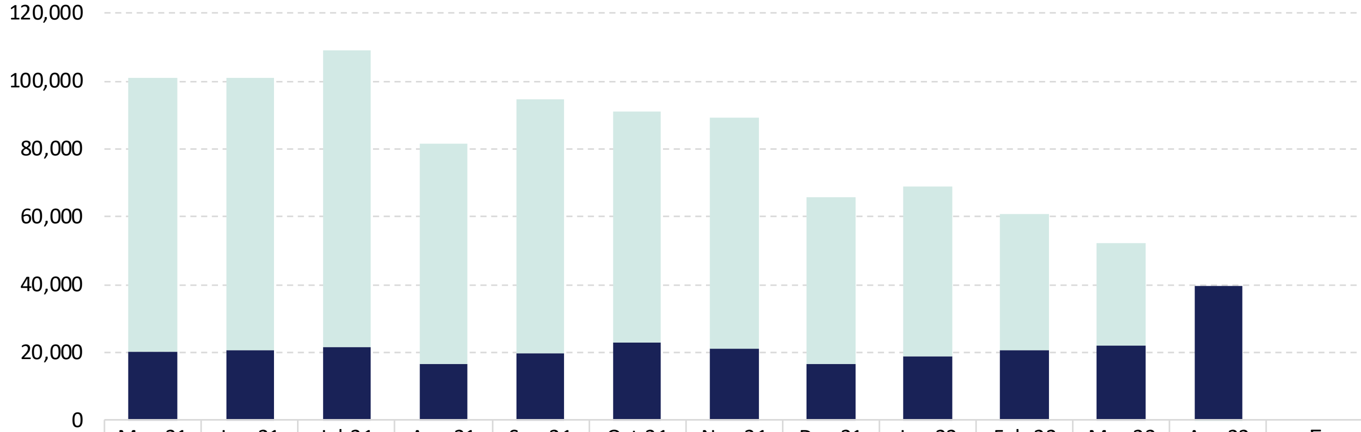
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

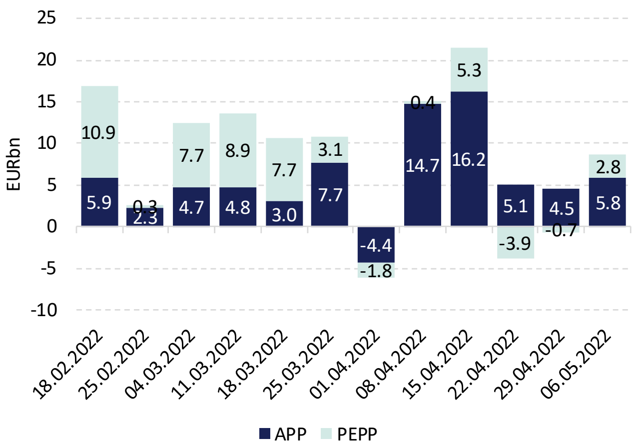
	APP	PEPP	APP & PEPP
Mar-22	3,179,043	1,718,076	4,897,119
Apr-22	3,218,529	1,718,071	4,936,600
Δ	+39,484	-4	+39,480

Monthly net purchases (in EURm)

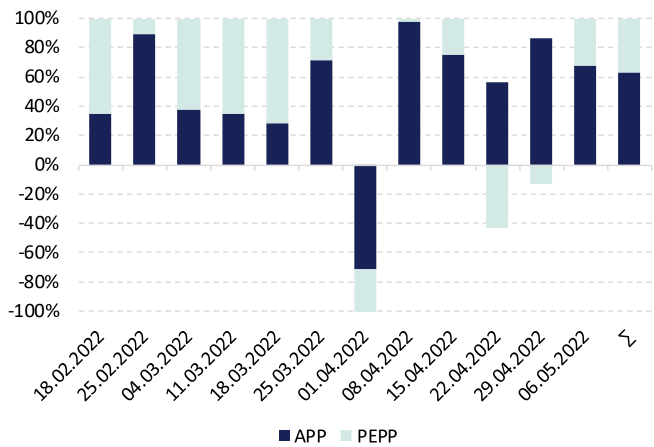


	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	∑
∑	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	52,143	39,480	954,856
PEPP	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	30,214	-4	694,308
APP	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	21,929	39,484	260,548

Weekly purchases



Distribution of weekly purchases

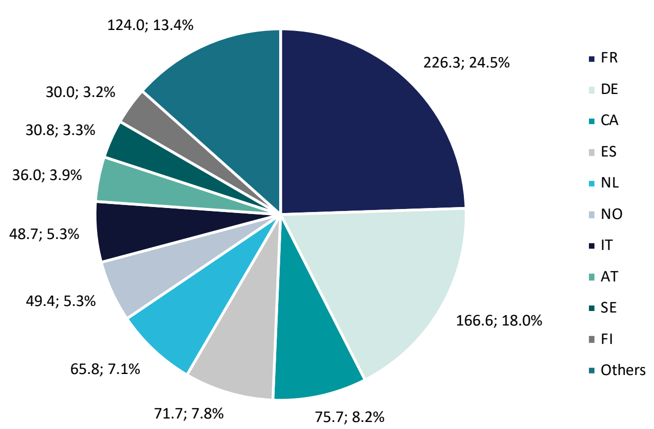


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

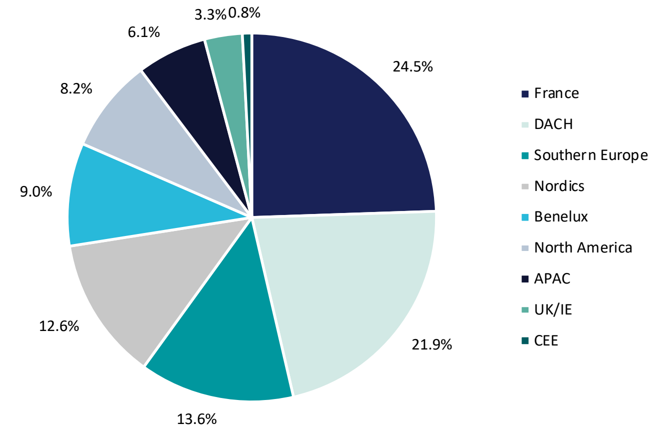
NORD/LB

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



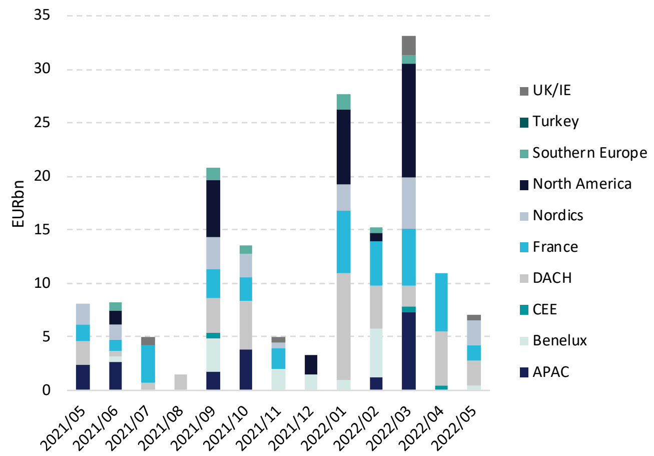
EUR benchmark volume by region (in EURbn)



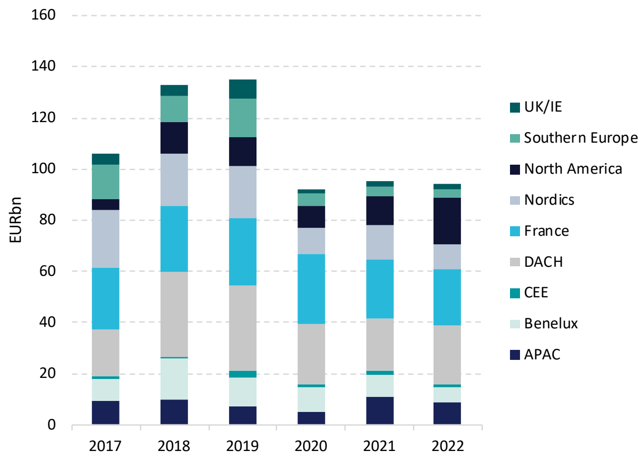
Top-10 jurisdictions

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	226.3	216	12	0.95	10.0	5.6	0.82
2	DE	166.6	241	19	0.63	8.4	4.5	0.44
3	CA	75.7	59	0	1.24	5.9	3.2	0.25
4	ES	71.7	58	5	1.13	11.8	3.8	1.73
5	NL	65.8	66	0	0.93	11.7	7.7	0.74
6	NO	49.4	58	9	0.85	7.4	4.0	0.38
7	IT	48.7	58	2	0.81	9.3	4.3	1.25
8	AT	36.0	66	2	0.54	9.6	6.2	0.56
9	SE	30.8	36	0	0.85	7.6	3.5	0.46
10	FI	30.0	32	2	0.94	7.7	3.9	0.40

EUR benchmark issue volume by month

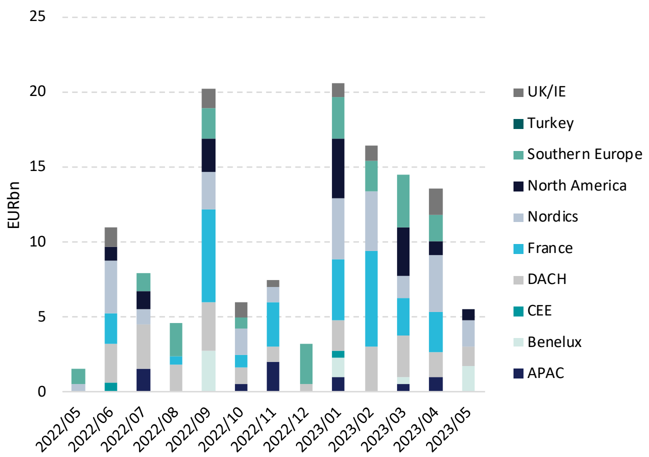


EUR benchmark issue volume by year

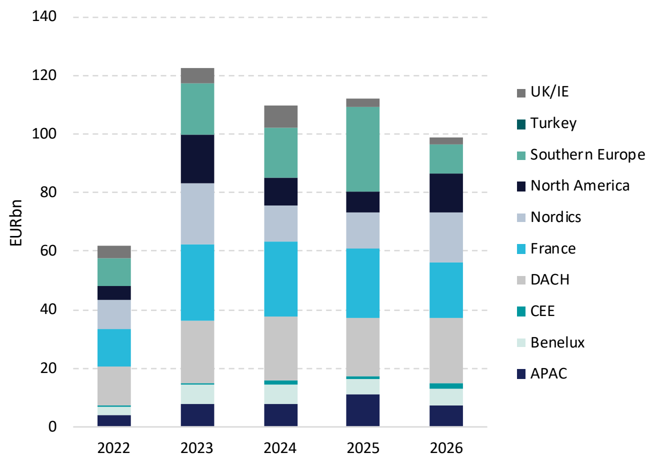


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

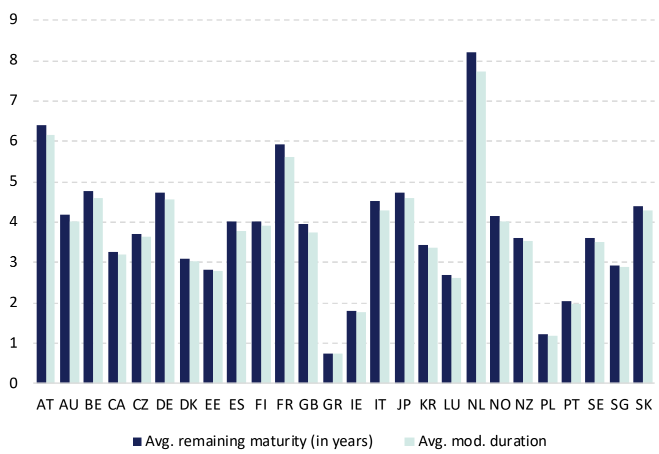
EUR benchmark maturities by month



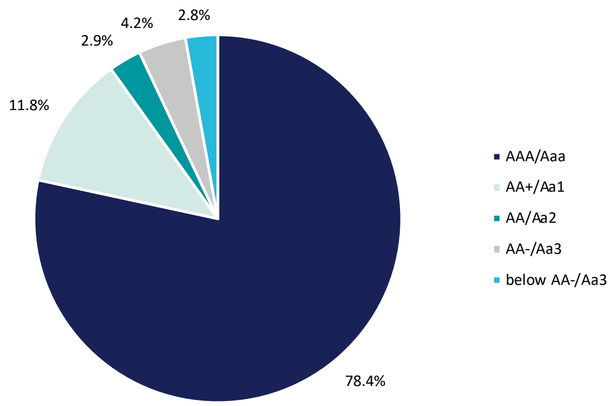
EUR benchmark maturities by year



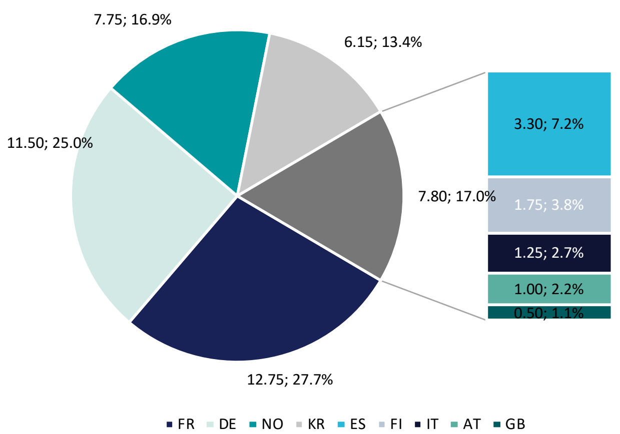
Modified duration and time to maturity by country



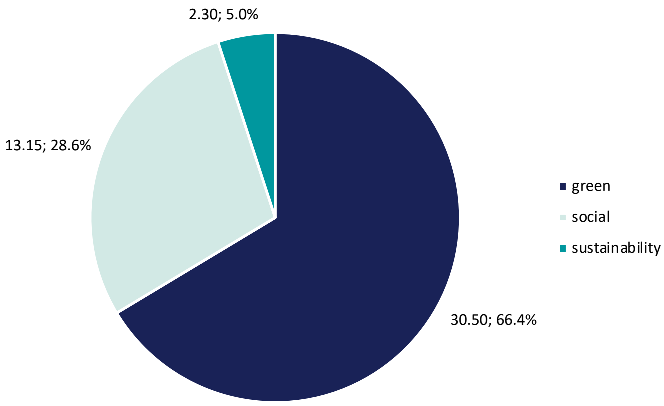
Rating distribution (volume weighted)



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

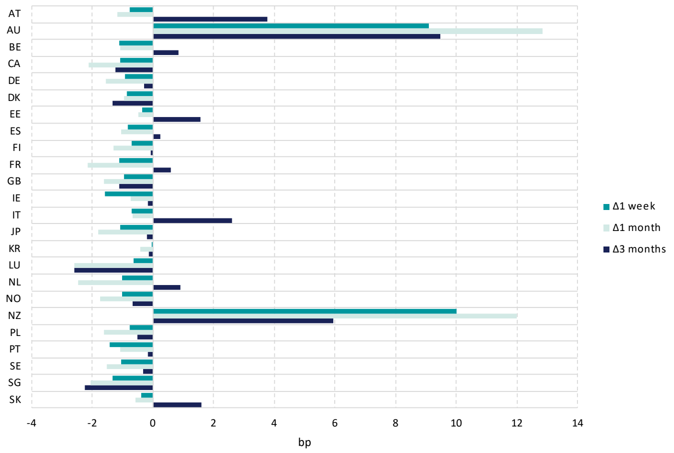


EUR benchmark volume (ESG) by type (in EURbn)

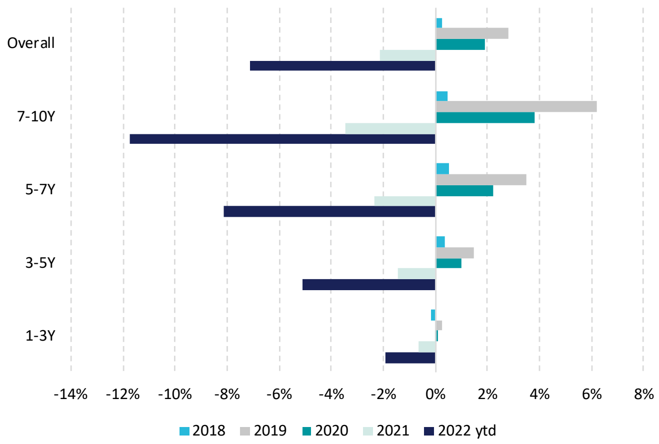


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

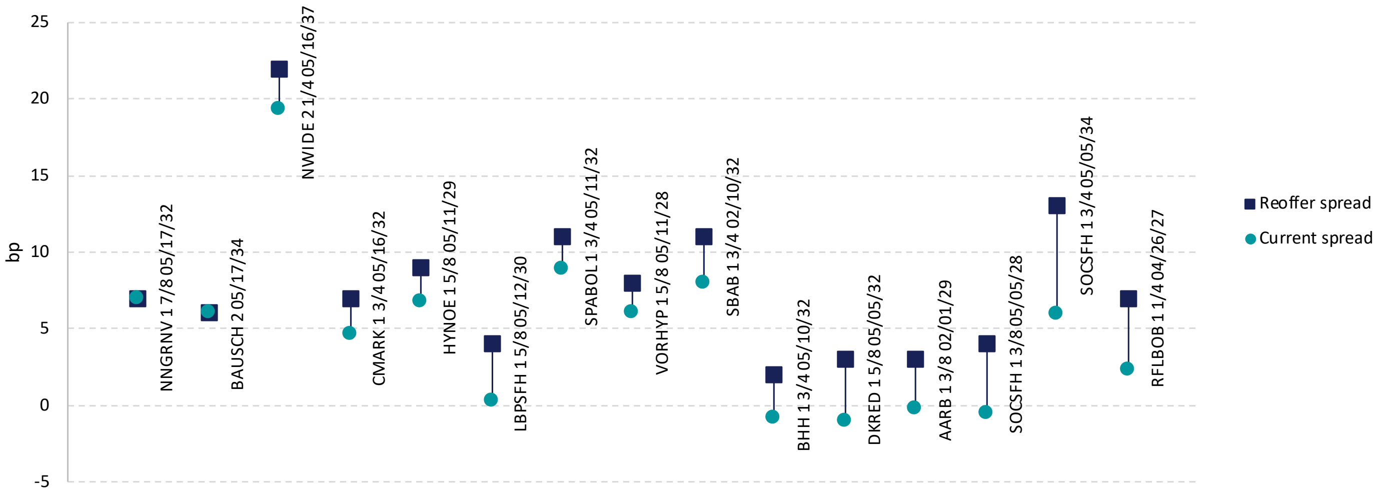
Spread development by country



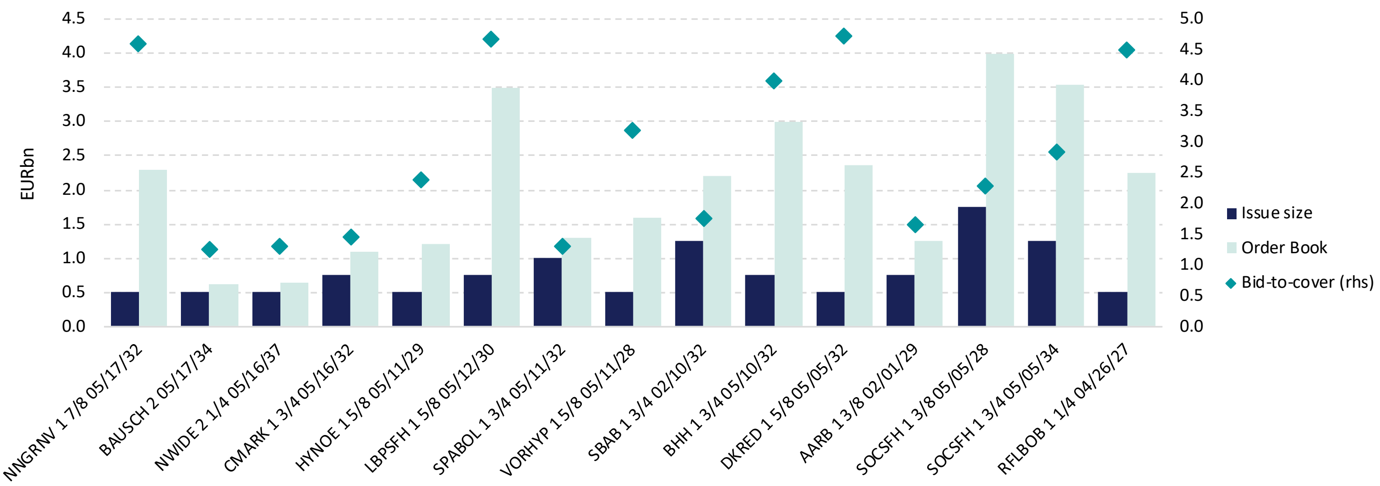
Covered bond performance (Total return)



Spread development (last 15 issues)



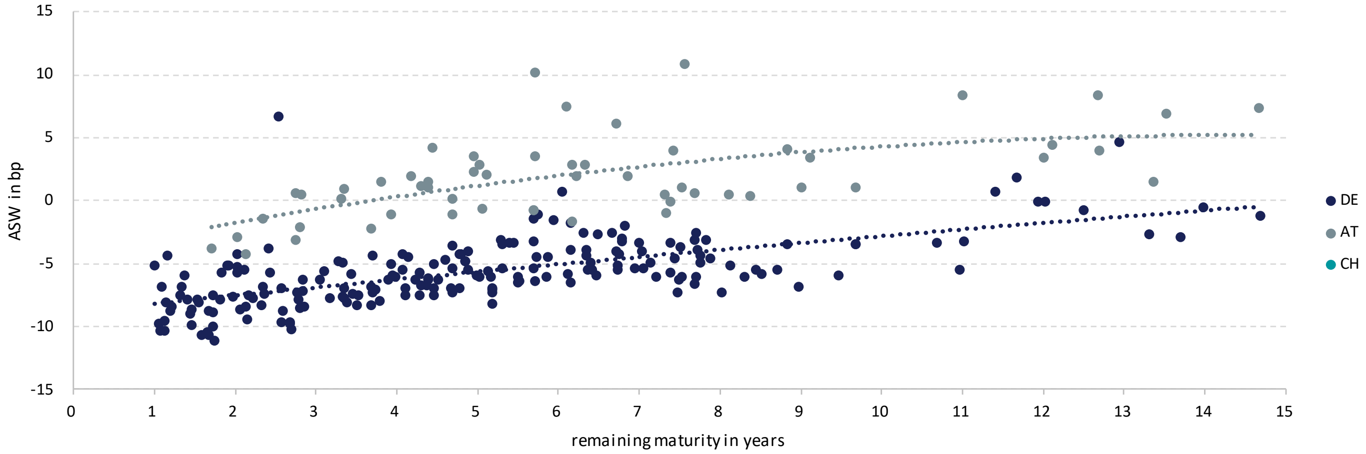
Order books (last 15 issues)



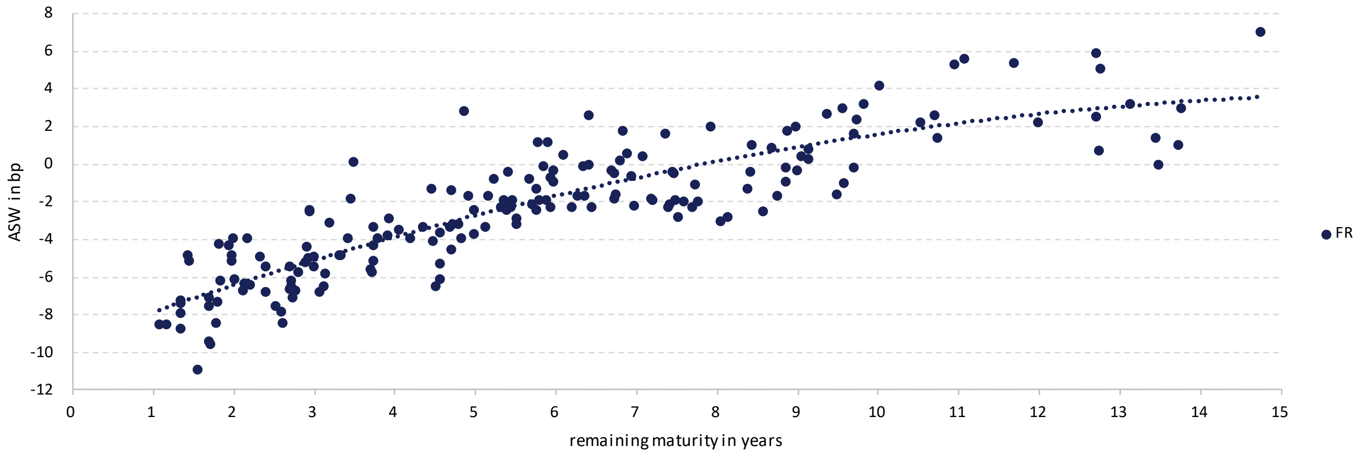
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

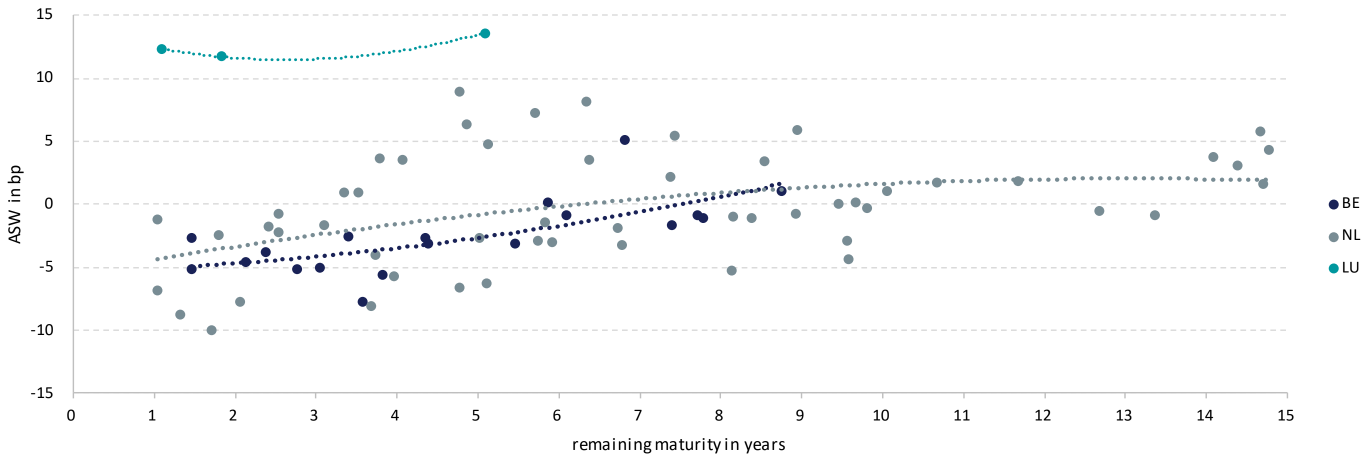
DACH



France

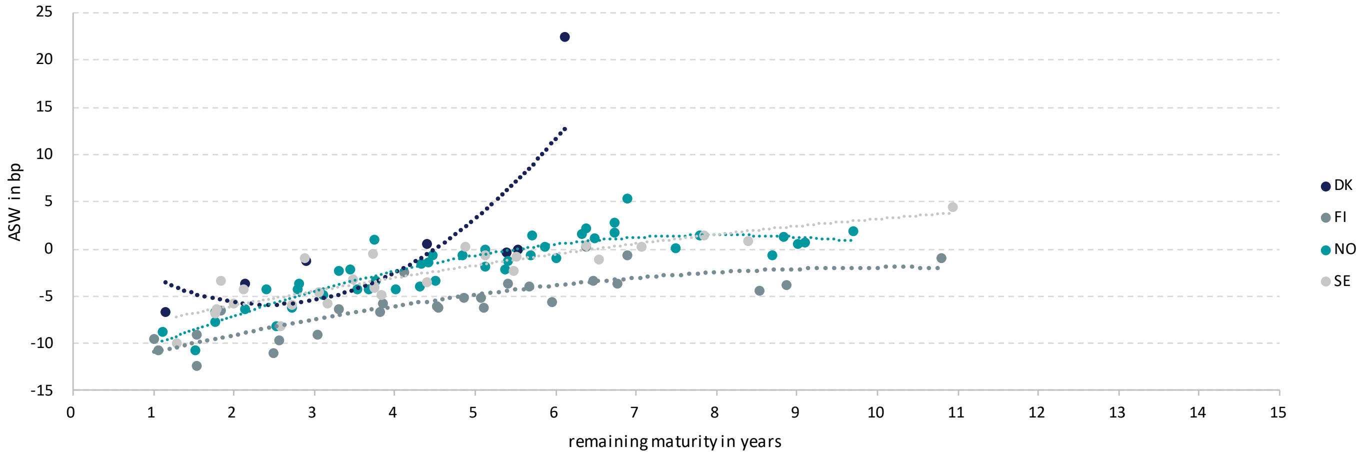


Benelux

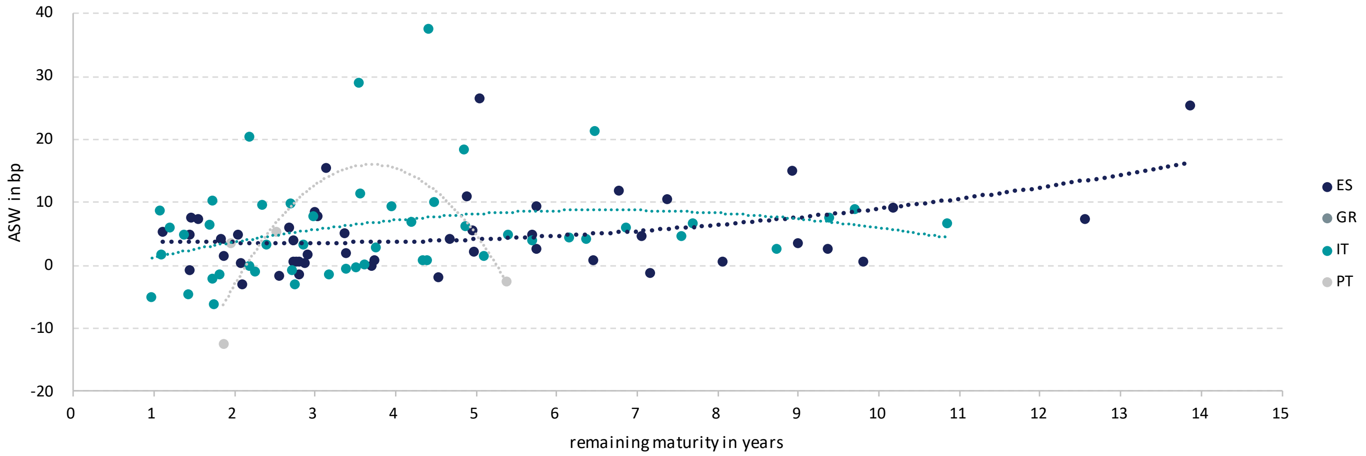


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

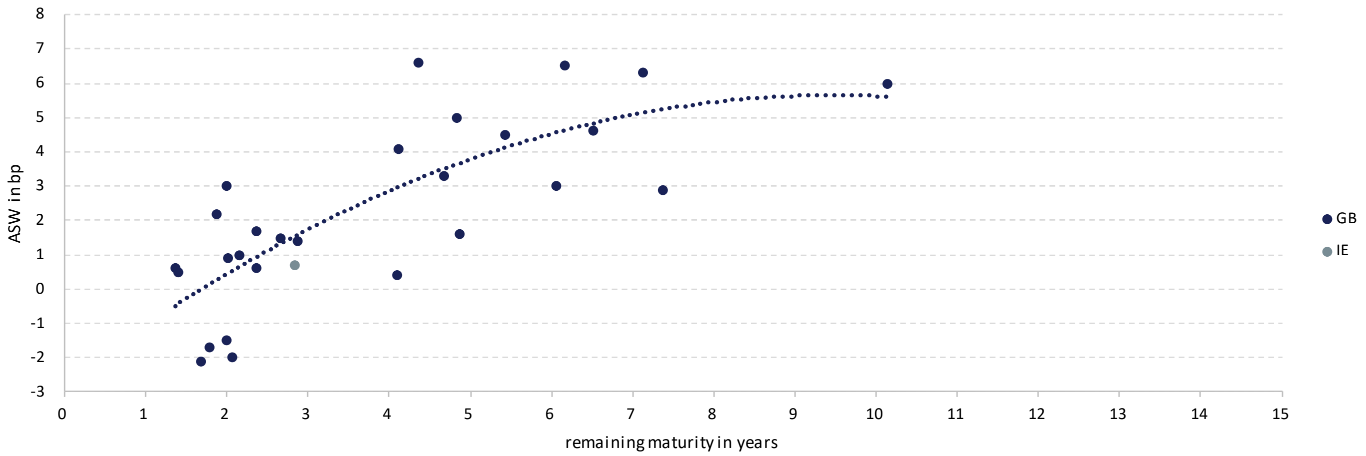
Nordics



Southern Europe

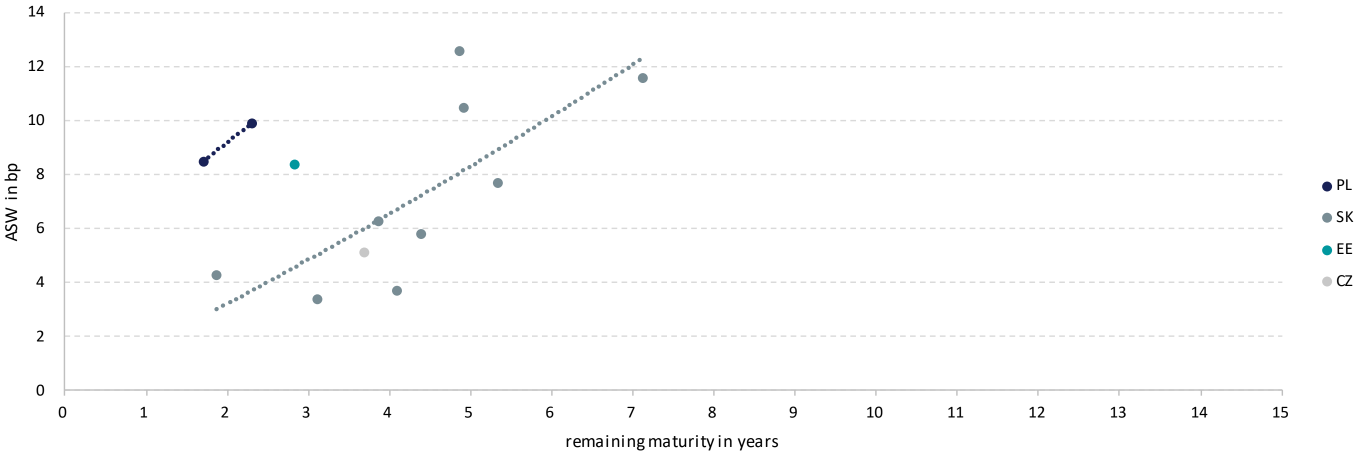


UK/IE

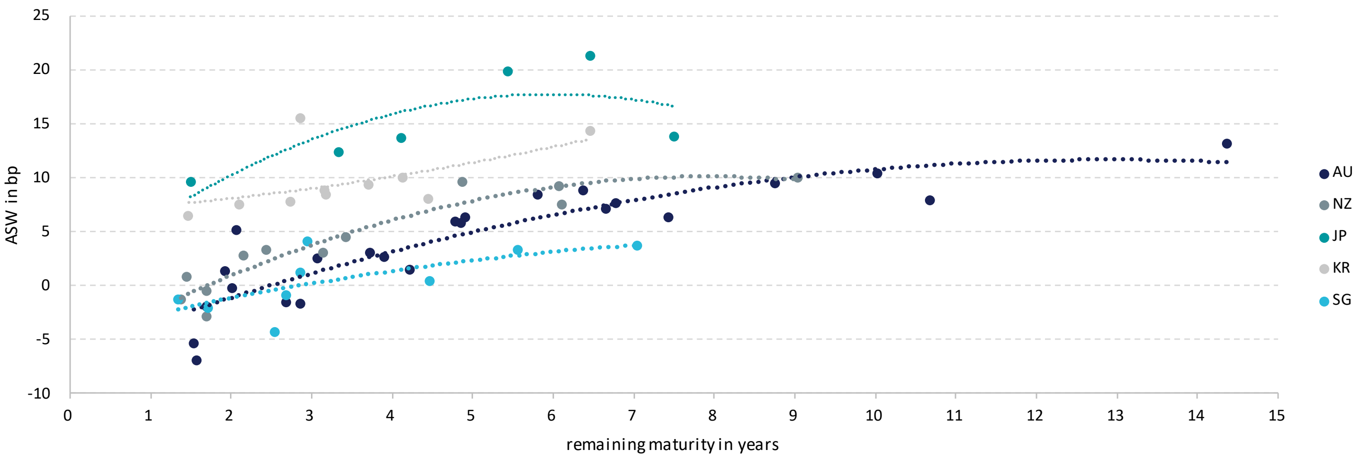


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

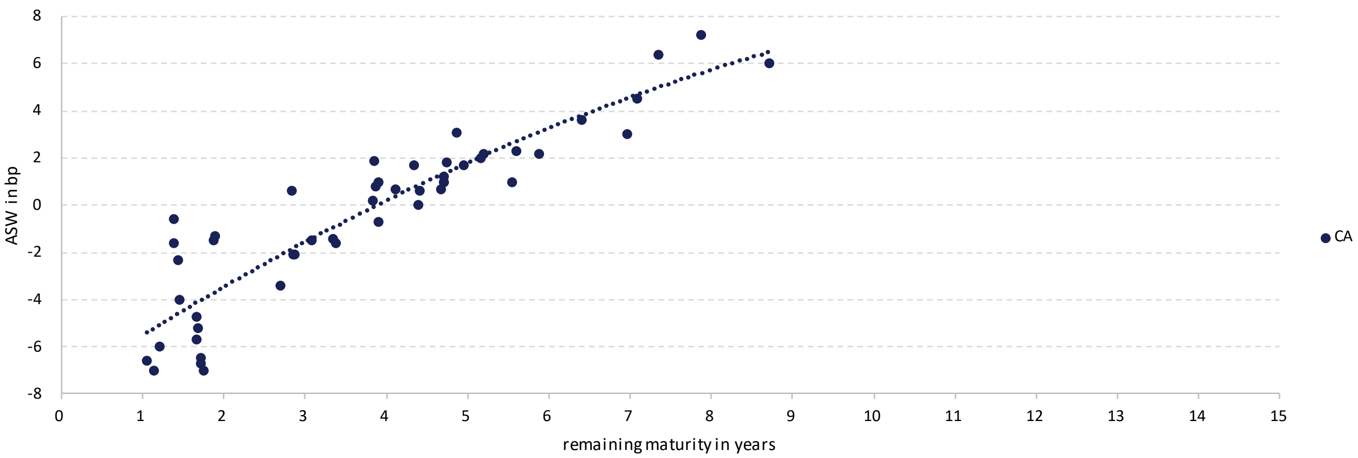
CEE



APAC



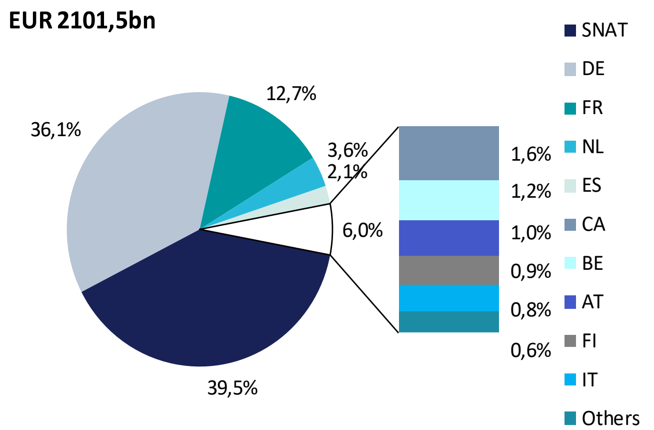
North America



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

Charts & Figures
SSA/Public Issuers

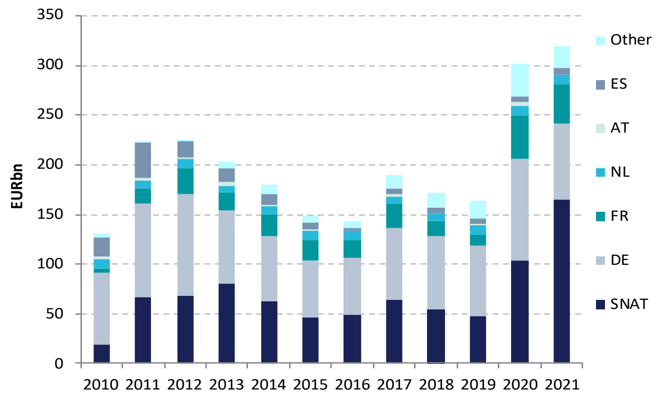
Outstanding volume (bmk)



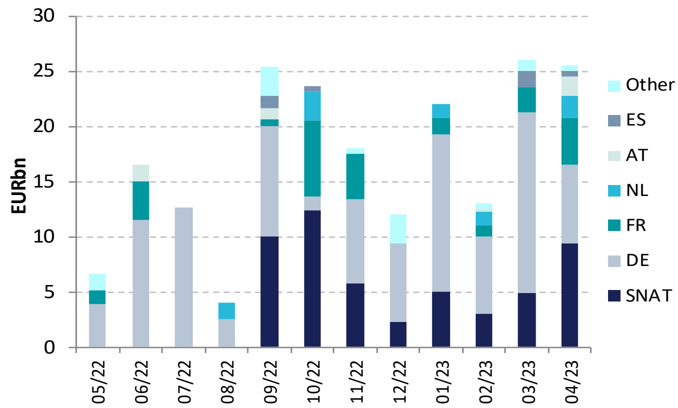
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	829,3	204	4,1	8,5
DE	759,3	573	1,3	6,6
FR	266,1	183	1,5	6,5
NL	75,9	68	1,1	6,7
ES	44,8	57	0,8	5,2
CA	33,2	22	1,5	5,1
BE	24,5	28	0,9	12,8
AT	21,2	23	0,9	4,5
FI	18,0	22	0,8	5,6
IT	16,8	20	0,8	5,1

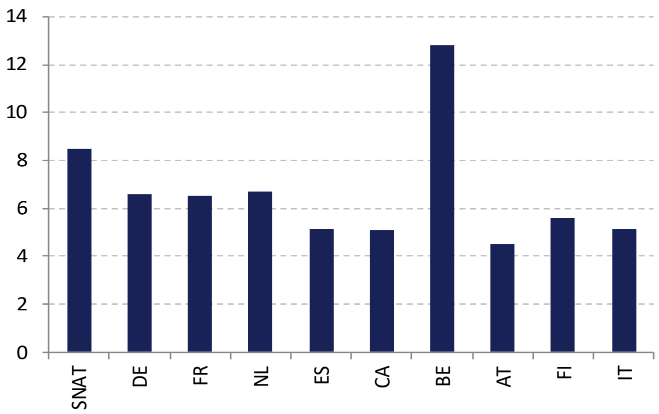
Issue volume by year (bmk)



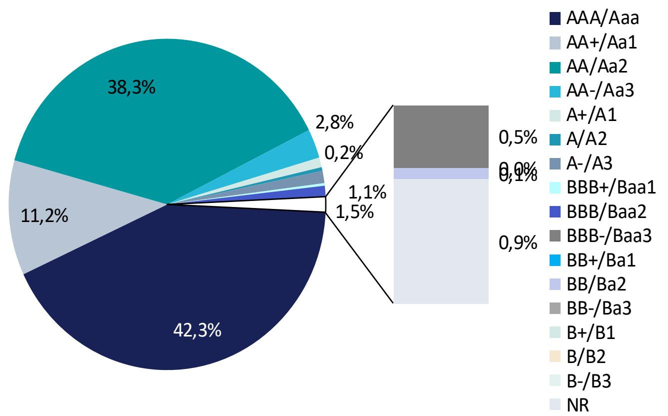
Maturities next 12 months (bmk)



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



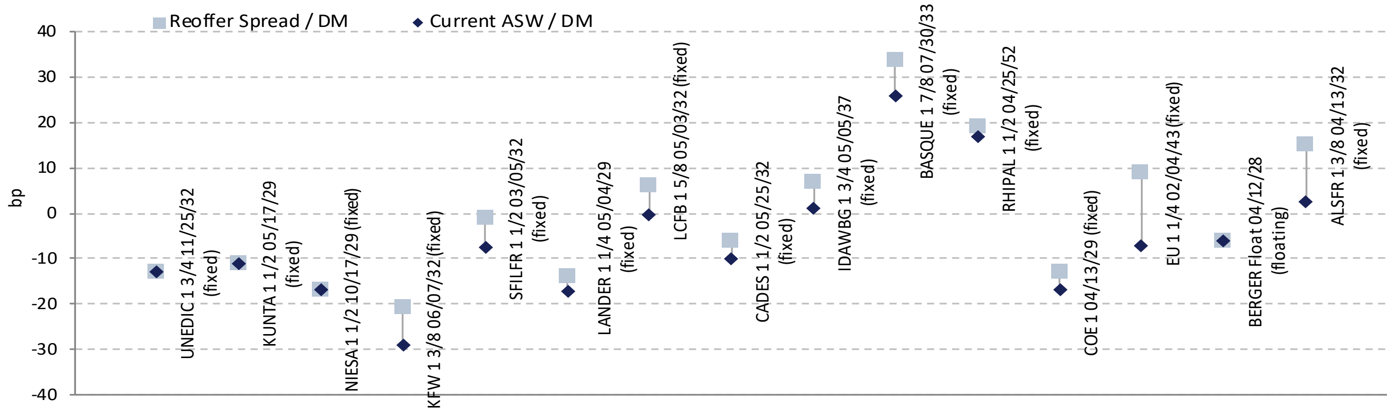
Rating distribution (vol. weighted)



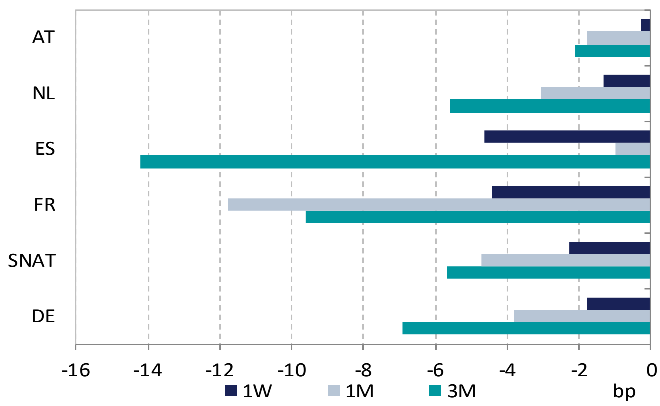
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

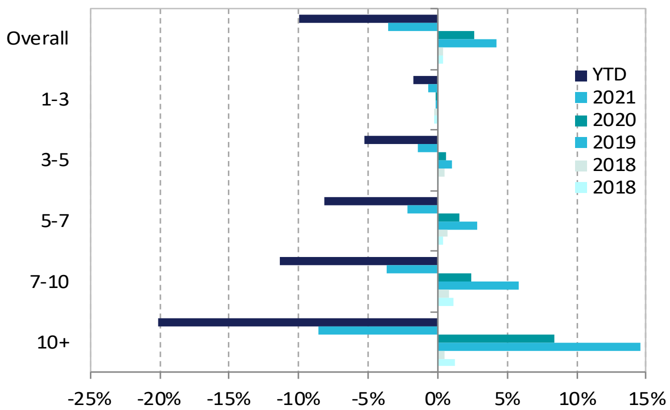
Spread development (last 15 issues)



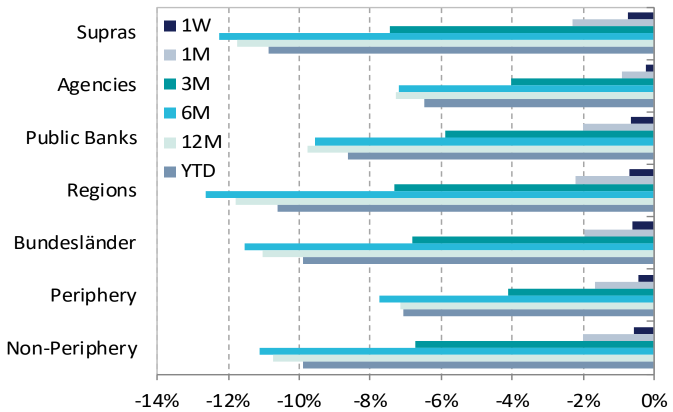
Spread development by country



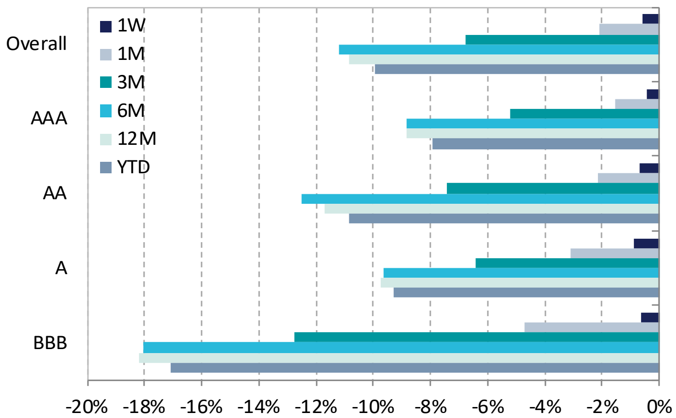
Performance (total return)



Performance (total return) by regions

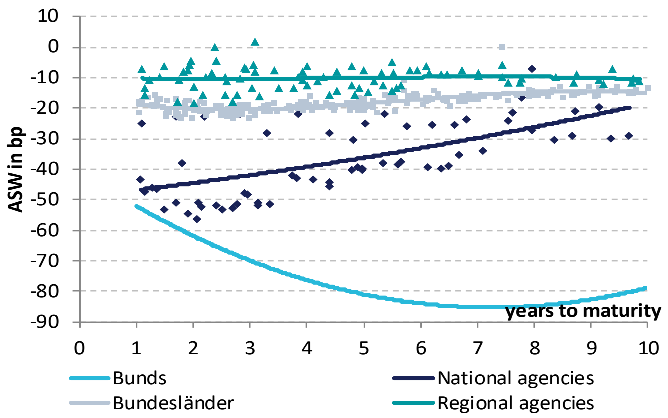


Performance (total return) by rating

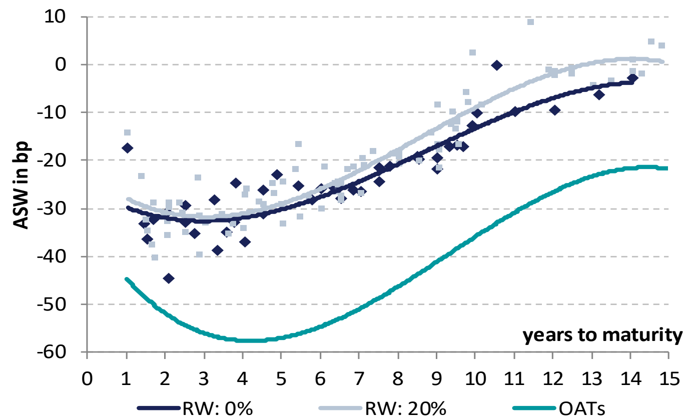


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

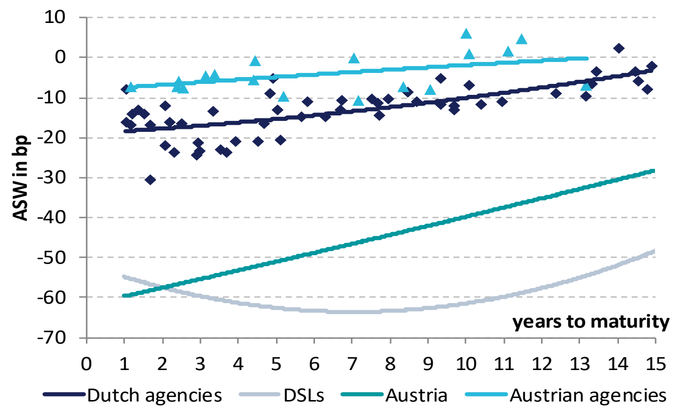
Germany (by segments)



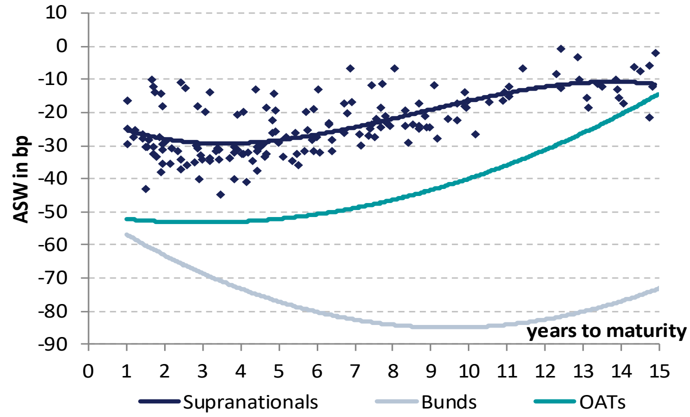
France (by risk weight)



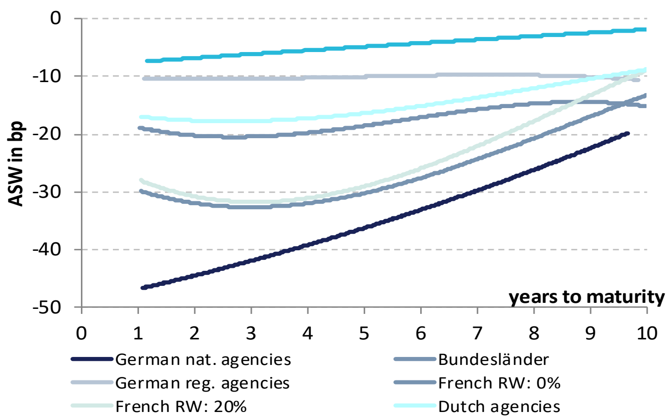
Netherlands & Austria



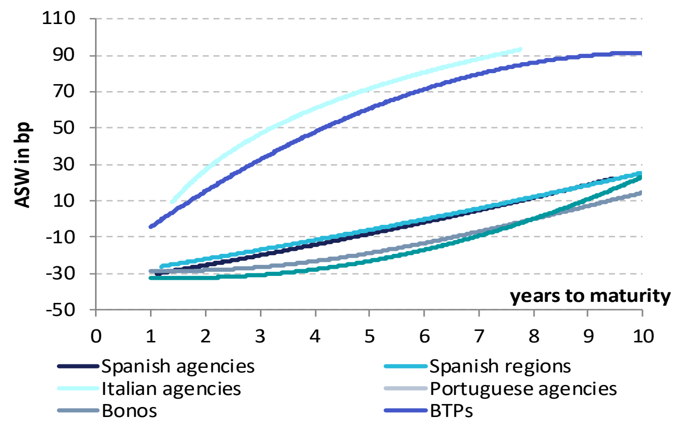
Supranationals



Core



Periphery



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

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
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
07/2022 ♦ 23 February	▪ ECB banking regulator also views the residential real estate market as a potential risk driver for banks ▪ Development of the German property market ▪ Beyond Bundeslaender: Paris metropolitan area (IDF and VDP)
06/2022 ♦ 16 February	▪ PEPP reporting: Finish line in sight, but no photo finish expected ▪ DZ HYP issues inaugural green Pfandbrief: ESG market in Germany continues its growth trajectory
05/2022 ♦ 09 February	▪ ECB: full speed, throttling, U-turn – or wrong turn? ▪ Insurance companies as covered bond investors: the bank-insurer nexus
04/2022 ♦ 02 February	▪ Covered Bonds – Review of January 2022: a reversion to old patterns does not always have to be bad ▪ SSA – New year, new hope? Less oomph to kick off the new year
03/2022 ♦ 26 January	▪ ECB preview: 10y Bund spotted in positive terrain. What’s next? ▪ EUR benchmark segment in Canada: our supply forecast already null and void
02/2022 ♦ 19 January	▪ Spotlight on the EUR benchmark segment: a look at the covered bond markets in Belgium and the Nether-lands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody’s covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

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

Transparency requirements §28 PfandBG (quarterly update)

Covered bonds as eligible collateral for central banks

SSA/Public Issuers:

Issuer Guide – German Laender 2021

Issuer Guide – Canadian Provinces & Territories 2020

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

Issuer Guide – Down Under 2019

Fixed Income Specials:

ESG-Update 2022

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

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

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

ECB launches PEPP (Pandemic Emergency Purchase Programme)

Appendix
Contacts at NORD/LB

Markets Strategy & Floor Research

Jan-Phillipp Hensing
SSA/Public Issuers

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

Dr Frederik Kunze
Covered Bonds/Banks

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

Melanie Kiene, CIIA
Covered Bonds/Banks

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

Dr Norman Rudschuck, CIIA
SSA/Public Issuers

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

Sales

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

Origination & Syndicate

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

Treasury

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

Trading

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

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Additional information
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None

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Breakdown of recommendations (12 months)

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Neutral:	55%
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Issuer / security	Date	Recommendation	Bond type	Cause