



Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

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Marketing communication (see disclaimer on the last pages)

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Market overview

Covered Bonds

Author: Stefan Rahaus

Primary market: Quieter, but the year is not over just yet...

While the covered bond primary market has been much quieter in recent days, there are still occasional signs of life out there. Nordea Mortgage Bank (ticker: NDASS) from Finland revitalised the ESG segment by placing an inaugural green covered bond last Thursday with a term to maturity of three years. With an order book totalling EUR 2.25bn, investors were sought for a bond worth EUR 1.0bn at a final spread of ms +2bp (guidance: ms +6bp area). This once again underlines the significant appeal of sustainable bonds among investors: while the 14 non-ESG deals in November featured an average bid-to-cover ratio of 1.4x, the three sustainable green deals from Nordea, CAFFIL and Sparebanken Soer produced an average bid-to-cover ratio of 2.5x. In the last edition of our weekly publication ([NORD/LB Covered Bond & SSA View 36](#)), we discussed the ESG covered bond segment in detail. Yesterday, on Tuesday, we saw another two issuers from the two largest covered bond jurisdictions: from Germany, Commerzbank (ticker: CMZB) approached investors with the offer of a 3y covered bond, issuing a total of EUR 1.0bn at a final spread of ms +1bp (guidance: ms +5bp area; order book: EUR 1.8bn). This was already the fifth market appearance from Commerzbank in the current year, following which its issuance volume for 2022 now stands at EUR 5.25bn. In total, CMZB has 20 bonds outstanding with an overall volume of EUR 18.0bn. From France, Credit Mutuel Home Loan SFH (ticker: CMCICB) marketed a new 5y deal at ms +20bp area. With an order book of EUR 1.45bn, a final volume of EUR 1.0bn was issued at ms +18bp. For Credit Mutuel, too, this represented a fifth transaction of 2022 (EUR 5.25bn in total), bringing its outstanding covered bond volume to EUR 22.75bn overall in the process.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Credit Mutuel	FR	29.11.	FR001400EFP8	5.0y	1.00bn	ms +18bp	AAA/Aaa/AAA	-
Commerzbank	DE	29.11.	DE000CZ43ZJ6	3.0y	1.00bn	ms +1bp	- /Aaa/ -	-
Nordea Mortgage Bank	FI	24.11.	XS2561746855	3.0y	1.00bn	ms +2bp	- / Aaa / -	X

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

...and just EUR 2.625bn short of a milestone

It will be fascinating to see whether or not issuers can hit the magical barrier of EUR 200bn when it comes to the new issuance volume for EUR benchmark bonds in 2022. At the time of publication, we had recorded a total of 213 transactions with an overall volume of EUR 197.375bn, which results in an average issuance size of EUR 920m per bond. At present, other covered bond markets are also attractive to issuers, a situation that was recently demonstrated by the Commonwealth Bank of Australia (Ticker: CBAAU) and ING Bank opting to place deals in USD and AUD respectively. Nevertheless, we remain optimistic that the threshold of EUR 200bn will be achieved this year.

Secondary market: same procedure as last week

Things continue to take their toll on the secondary market. With hardly any reliable bids to be found, it is only at the very short end where there seems to be any stability. With the year-end inching ever closer and an expected flood of new issues in January 2023, the receptiveness of traders has essentially been paralysed. In January 2023, we expect maturities in the EUR covered bond segment in the range of EUR 20.65bn.

Moody's reacts positively to introduction of a credit register in Estonia

In a Sector Comment published on 28 November, the rating agency Moody's highlights news from Estonia: the Estonian Ministry of Finance and the country's banking association have drawn up plans for the introduction of a credit register that would provide a comprehensive overview of the existing debts of borrowers. It is anticipated that the necessary legal framework will be created in 2023 and the register will be operational from 2025 onwards. Moody's analysts expect that the introduction will have a positive impact on the quality of Estonian banks and their covered bonds, as transparency with regard to household debt will increase. The dependency of lenders on information from borrowers about their financial situation will also be reduced by the fact that the planned credit register will contain not only negative information, such as late payments, but also positive information about existing debts. This would also support the work of regulatory authorities and political decision-makers, because private household debt trends will become more transparent and macroprudential measures, i.e. measures that maintain financial stability, can be developed. In Estonia, there is already a rule limiting the ratio of debt service to income, which could be adjusted accordingly in the event of undesirable debt trends. Transparency in connection with lending to private individuals has increased across Europe in recent years. Some regulations require lenders to consult reporting databases before approving a loan. Finland will introduce a positive credit register in the spring of 2024, while Norway moved to expand its positive credit register to include unsecured personal debt in 2019, including consumer loans and credit card debt. Estonia is now planning to follow the examples of these two Nordic nations. In our [NORD/LB Issuer Guide Covered Bonds 2022](#), we included two Estonian issuers in the form of Luminor Bank and LHV Bank and their respective cover pools. Luminor Bank has two outstanding EUR-denominated benchmark bonds each worth EUR 500m and was most recently active on the primary market in May 2022 (initial residual term to maturity: 5.1y; spread: ms +22bp; cf. [NORD/LB Issuer View Luminor Bank](#) from May). LHV Bank has so far exclusively served the sub-benchmark segment and has an outstanding bond worth EUR 250m, which was originally placed in 2020 and now has a residual term of 2.5 years. We continue to see Eastern Europe as a growth region for the international covered bond market and expect Estonia to supply EUR 500m in new issuances as part of our primary market forecast for 2023.

Fitch: APAC issuers agree harmonised reporting

Issuers from third countries must also comply with the transparency requirements of the EU Covered Bond Directive (CBD) in order to qualify as Level 2A assets under the LCR calculation. As we have explained several times previously, the reporting date of 30 September 2022 will initially be important for us, as it represents the end of the third quarter in which the CBR came into force on 8 July 2022. In their APAC Covered Bond Q3 Report, the rating analysts at Fitch now confirm that covered bond issuers from the Asia-Pacific region have adjusted their reporting accordingly. Issuers from Singapore and South Korea already complied with the requirements pursuant to Article 14 (2) of the CBD as they had previously signed up to use the Covered Bond Label and were reporting in accordance with to the Harmonized Transparency Template (HTT). Reporting in Australia and New Zealand has been updated and adjusted accordingly. Fitch now considers all APAC issuers to be compliant with EU investor information requirements. In addition, the Commonwealth Bank of Australia (CBAAU) and Bank of Queensland (BQDAU) have now also joined the ranks of issuers eligible to use the Covered Bond Label.

Fitch: NPV regulation protects Pfandbrief programmes

In a report dated 22 November 2022, the experts from the rating agency Fitch discussed the impacts of rising interest rates on the net present value (NPV) of assets and liabilities linked to Pfandbrief programmes. They determined not only that this has suffered a significant decline in 2022, but also that the NPV of the cover assets was 3.5%, with the present value of the Pfandbriefe being 5.2% below nominal value. During the time of the low interest rate environment (end of 2018 through to the end of 2021), the net present value of assets still included an average premium of 14% on the nominal value, while the present value of the liabilities was 10% above the nominal value. This strong change in value in 2022 reflects the high interest rate sensitivity both of the cover assets and the covered bonds issued in Germany, as fixed interest rate agreements are commonplace on both sides. As a result, the valuations balance each other out, so that there has not yet been any significant reduction in the present-value overcollateralisation (OC). Present value overcollateralisation remained in excess of nominal OC, although the gap has narrowed in recent quarters. However, the rating experts at Fitch warn that the issuance of new Pfandbriefe with a higher coupon and the same collateral in the cover pool will place the present-value overcollateralisation under downward pressure. In order to avoid a situation in which the net interest income from the assets falls below the interest payments for outstanding covered bonds on a long-term basis, new cover assets with currently higher yields could be included in the cover pool, among other aspects. Due to the structurally long maturities of the assets in public-sector cover pools, Fitch believes that public-sector Pfandbriefe are even more sensitive to interest rates than mortgage-backed Pfandbriefe. The German Pfandbrief Act specifically requires issuers to maintain a present-value overcollateralisation ratio of at least 2% in both high-interest and low-interest scenarios. Together with a fairly high nominal overcollateralisation (in this context, please refer to our §28 study [Transparency requirements §28 PfandBG Q3 2022](#) and dedicated article in this present edition of our weekly publication), this offers investors in German Pfandbriefe protection against the risks of rising interest rates.

Market overview

SSA/Public Issuers

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

European Union enters the home straight

The Christmas markets are opening and the primary market books of public issuers and SSA secondary market trading are slowly winding down. According to the funding plan, only the EU has another deal in its Christmas stocking next week. The EU is still budgeting for a funding requirement of EUR 50bn in H2 2022 within the framework of the NGEU programme (NextGenerationEU). For these transactions, the EU has again reliably provided its funding calendar, which we have replicated for you below (syndicated transactions). In addition, there should be four instead of six auctions in the second half of the year, meaning that the dates in July and December will be omitted. Overall, we had expected more funding from the EU, although this estimate was almost confirmed by other means. Under the SURE programme (Support to Mitigate Unemployment Risks in an Emergency), the EU can still issue EUR 6.6bn in social bonds. A further EUR 9bn in macro-financial assistance (MFA) loans to Ukraine is also possible and will have to be raised on the capital market. For both programmes - SURE and MFA - the funding windows explicitly do not apply, since it is also still unclear whether either of the amounts will be actually be called up or needed at all. We expect the exact funding plan for H1 2023 in December 2022 and then there might be more than "just" EUR 50bn on the tab. For the outstanding syndicated transaction in December, the EU has already sent an RfP to selected banks. Placement on the primary market will most likely follow next week. After that, nothing stands in the way of the EU's Christmas celebrations.

Time window for...

...EU bond issuances

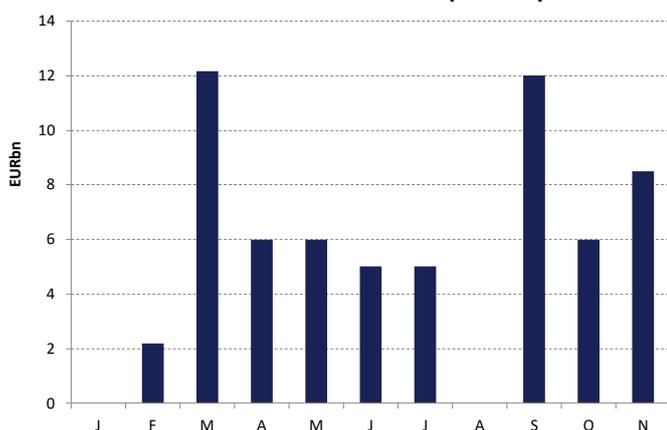
CW 28	July 11-15
CW 37	September 12-16
CW 41	October 10-14

...EU bond issuances

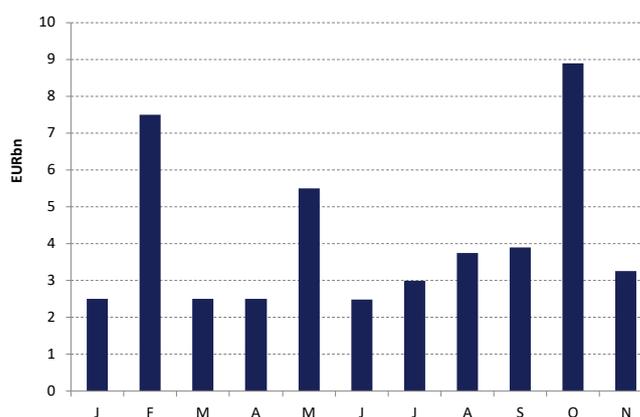
CW 46	November 14-18
CW 49	December 05-09

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

EUR BMK deals from the EU in 2022 (EURbn)



EU tap deals in 2022 (EURbn)



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

The ESM and EFSF concluded their funding for 2022 some time ago

In the past, the ESM and EFSF were not overshadowed by the EU in terms of volume and so we do not want to overlook these two heavyweights. Both e-supras were busy in 2022, but the ESM only issued one new benchmark bond (EUR 4bn) and two taps of EUR 2bn each. Observant readers will note that no further bond has been added to the developing USD curve. The funding numbers for 2023 are almost identical to 2022 and we expect the two Luxembourg institutions to return with fresh supplies in Q1 2023.

Long-term funding plan incl. 2023 (EURbn)

	2021	2022	2023	Σ
EFSF	16.5	19.5	20.0	56.0
ESM	8.0	8.0	8.0	24.0
Σ	24.5	27.5	28.0	80.0

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

Germany's federal budget of EUR 476bn approved for 2023

After a settlement session lasting more than 17 hours, on 11 November, the budget committee adopted the federal budget for 2023. The estimated total expenditure of EUR 476.29bn is EUR 31.07bn higher than the original government bill. Compared to the previous year, however, expenditure is expected to be 3.9% lower (EUR -19.5bn). Significantly higher net borrowing is required to finance the budget. This is set at EUR 45.61bn for 2023 and is therefore EUR 28.36bn higher than the original government bill. To recap, compared to the [debt break at Laender level](#), the federal government is allowed to take on net new debt amounting to a maximum of 0.35% of the gross domestic product of the year preceding the year in which the budget is drawn up. In addition, a cyclical deficit/surplus is permitted, which is positive in an upswing and negative in a downswing. The planned new borrowing is around EUR 6m below the maximum permissible borrowing under the debt rule. On the revenue side, the federal government is now budgeting for tax revenues of EUR 358.13bn, which is EUR 4.15bn less than in the government bill. The reason for this is planned tax relief in the coming year. At EUR 72.55bn, the envisaged other revenue, on the other hand, was EUR 6.86bn higher than in the original plan.

European Investment Bank places second digital EUR bond

After reporting in a previous [issue](#) on the EIB mandating two digital bonds – which will include a second such transaction in EUR and the first-ever in GBP – and dedicating a separate article to this topic, they were finally placed on the market yesterday. To recap, digital bonds use the potential of the blockchain. A blockchain is a decentralised database showing transactions in chronological order using a symbolic chain made up of so-called blocks. A distinction is made here between public (i.e. accessible to the general public) and private blockchains. Compared to the first digital bond, the EIB did not use a public blockchain this time, but rather a private one with restricted access. The volume was relatively small at EUR 100m and the term is just shy of two years. The bond was placed at ms -33bp and no information was provided on the order book.

NRW.BANK's new commitments up on prior year across the first nine months

In the first nine months of 2022, NRW.BANK (ticker: NRWBK) granted promotional loans with a total volume of EUR 9.5bn. Compared to the same period last year (EUR 8bn), the increase is therefore 18%. According to NRW.BANK, the reason for the increased volume of new commitments is that the economic situation is continuing to stabilise after the pandemic years and planned investments that had been suspended, especially infrastructure measures, are now being implemented. In the first nine months, NRW.BANK granted new loans totalling EUR 3.8bn in the promotional field Economy (same period in the previous year: EUR 2.7bn). Within this promotional field, demand was particularly strong for the NRW.BANK.Universalkredit, which covers a broad range of corporate investments. In the promotional field Infrastructure/Municipalities, the promotional volume rose by 29% to EUR 4.0bn in the first nine months (same period of the previous year: EUR 3.1bn). Commitments for infrastructure projects in particular increased by 44% to EUR 2.0bn compared to the previous year. In the promotional field Housing, capacity and supply shortages as well as rising prices and the lack of residential building land meant that the volume of new commitments declined by 24% to EUR 1.8bn compared with the same period of the previous year. On the other hand, demand for promotional programmes that have a positive impact on energy and resource efficiency picked up. For example, an increase of 6% to EUR 2.7bn was recorded in the promotional field Energy Transition/Environmental Protection. Among other aspects, demand for the NRW.BANK.Effizienzcredit programme was higher than in the previous year, with new commitments totalling EUR 449.2m. One reason for this increase is the fact that the programme can now also be used for the energy-efficient refurbishment and construction of commercial buildings.

Primary market

As you can see from the table below, there was a gaping void of new EUR BMK issues in our SSA segment during the trading week (Wednesday to Tuesday). Only the European Investment Bank (ticker: EIB) placed a new digital EUR bond, which, with a volume of EUR 100m, is not even a sub-benchmark transaction. You can find more details about this on the previous page. Otherwise, we were able to find a total of three taps, with the state of Hesse kicking things off. A total of EUR 500m was added to HESSEN 2.625% 09/10/27 at ms -18bp. The books amounted to EUR 540m. Aside from this, there was the announced EU auction in which two bonds were topped up. EU 2% 10/04/27 was tapped by an additional EUR 2.265bn and now has an outstanding volume of EUR 9.265bn. The order book amounted to EUR 2.336bn. Furthermore, an additional EUR 1bn was allocated to the green bond EU 1.25% 02/04/43. The order book amounted to EUR 1.933bn and the new bond volume is now EUR 7bn.

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

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

Covered Bonds

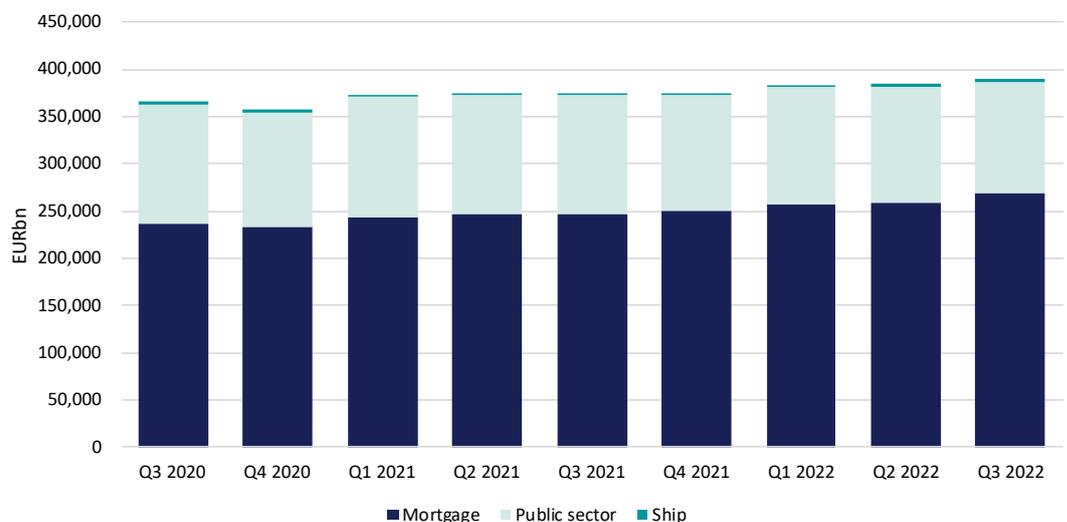
Transparency requirements §28 PfandBG Q3 2022

Author: Dr. Frederik Kunze

Transparency disclosures under Section 28 PfandBG: 37 mortgage and 23 public Pfandbrief issuers

The Pfandbrief issuers that form part of the Association of German Pfandbrief Banks (vdp) submitted their transparency reports on the composition of their cover pools in accordance with Section 28 PfandBG a few weeks ago. The reporting period was the third quarter of 2022. With regard to the group of issuers, there were no changes for this reporting period. Our Covered Bond Special [Transparency requirements §28 PfandBG Q3 2022](#) therefore contains cover pool data on 37 mortgage Pfandbrief issuers and 23 issuers of public Pfandbriefe. In the process, we again manually added cover pool information regarding Deutsche Bank which is no longer reported on the vdp website.

Trend in outstanding volume

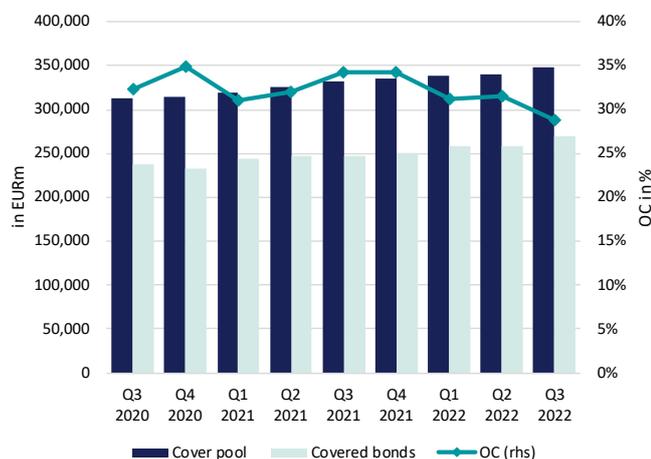


Source: vdp, Deutsche Bank, NORD/LB Markets Strategy & Floor Research

Pfandbrief circulation: total volume increased in Q3 2022 for the third time in a row

With EUR 389.4bn in outstanding Pfandbriefe, the total volume rose again compared to the previous quarter (reporting date: 30 June 2022: EUR 384.5bn). The volume of outstanding mortgage Pfandbriefe increased by EUR 11.0bn or +4.3% quarter on quarter, whereas the volume of public Pfandbriefe fell once again - and this time quite significantly - by EUR 6.0bn. Ship Pfandbriefe remained almost at the level from the previous period (EUR 2.182bn after EUR 2.187bn in Q2 2022). As regards cover assets, there was an increase of EUR 7.5bn in mortgage assets, a minus of EUR 88m in ships and a marked decline of EUR 3.0bn in cover assets for public Pfandbriefe.

Development - mortgage Pfandbriefe



Development – public-sector Pfandbriefe



Source: vdp, Deutsche Bank, NORD/LB Markets Strategy & Floor Research

Mortgage Pfandbriefe with an increase of EUR 11,011m or 4.3% quarter on quarter

The development of Mortgage Pfandbriefe was more dynamic again across the reporting period from July to September 2022. The increase of EUR 1.5bn in Q2 2022 was followed by an increase of EUR 11.0bn (+4.3% Q/Q), resulting in a mortgage Pfandbrief volume of EUR 270.0bn at the end of September 2022. At the same time, an increase of 9.1% year on year is derived from this value. The banks with a markedly higher outstanding volume based on a quarterly comparison included in particular Landesbank Hessen-Thüringen (EUR +2.5bn) and Commerzbank (EUR +2.1bn). In a year-on-year comparison, the outstanding volume of mortgage Pfandbriefe at Commerzbank increased the most, rising by EUR 4.1bn. ING-DiBa also saw a very strong increase from EUR 3.7bn to EUR 7.4bn compared with the third quarter of 2021. Outstanding mortgage Pfandbriefe totalling EUR 270.0bn were offset by cover assets of EUR 348.0bn. The average OC declined to 28.9% (previous quarter: 31.5%) due to the disproportionate increase in outstanding mortgage Pfandbriefe.

Public Pfandbriefe segment: decrease of EUR 6.1bn or -4.95% quarter on quarter

A significant decline in outstanding public Pfandbriefe can be observed for the third quarter of 2022. In the third quarter of 2022, the volume was still at EUR 117.2bn, after the total volume of outstanding Öpfe stood at EUR 123.3bn as at 30 June 2022. The decline in this sub-market accordingly amounted to EUR 6.1bn or -4.95%. The outstanding volume fell even more sharply, EUR -8.6bn, in comparison with the previous year. At issuer level, the strongest quarter-on-quarter growth was recorded by NORD/LB (EUR +798m). In the current reporting period, the volume of public Pfandbriefe fell most sharply at Deutsche Kreditbank (EUR -2.0bn). In total, the outstanding volume was offset by cover assets in the amount of EUR 149.8bn, with the average overcollateralisation rising to 27.8% versus the previous quarter (reporting date 30 June 2022: 23.9%).

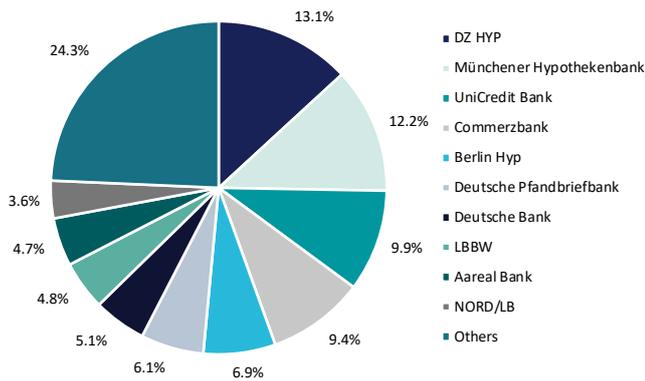
Ship Pfandbriefe remain a niche product

With a volume of EUR 2,182m, (previous quarter: EUR 2,187m) the ship Pfandbriefe segment is still a niche market within the German Pfandbrief market. At present, only two institutions, namely Commerzbank and HCOB, have outstanding ship Pfandbriefe, of which HCOB accounts for around 95%.

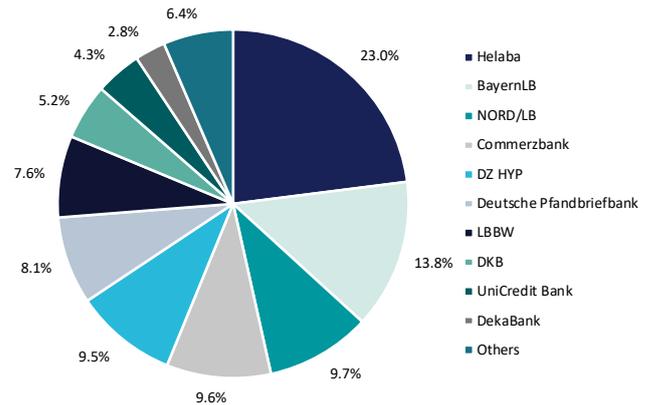
A look at the top 10: no new shifts compared with previous quarter

With regard to the rankings of the three biggest mortgage Pfandbrief issuers, there were no changes. The biggest issuer in the mortgage-backed Pfandbrief sub-segment is therefore still DZ HYP, followed by Münchener Hypothekenbank and UniCredit Bank. The share of the volume outstanding attributable to “smaller” issuers stands at 24.3% (category: “Others”). In the public-sector Pfandbrief segment, Helaba, Bayern LB and NORD/LB continue to occupy the top three places.

Market shares – mortgage Pfandbriefe



Market shares – public-sector Pfandbriefe



Source: vdp, Deutsche Bank, NORD/LB Markets Strategy & Floor Research

Conclusion

The total volume of Pfandbriefe outstanding increased again in the third quarter of 2022. The latest issuance activity of German Pfandbrief institutions in the EUR benchmark or EUR sub-benchmark segment is not yet reflected in the current data. Accordingly, the figures for the fourth quarter of 2022 may show a further increase, especially for mortgage Pfandbriefe.

SSA/Public Issuers

ECB repo collateral rules and their implications for Suprationals & Agencies

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

General Framework and Temporary Framework define collateral rules

Within the scope of its Statutes, access to ECB liquidity is only possible on a collateralised basis. The ECB defines the assets that are eligible as collateral in its General Framework and Temporary Framework. There are some significant differences in the criteria for acceptance as collateral, especially for quasi-government issuers. For this reason, we devote the following section to a more detailed look at the ECB repo rules.

Eligibility criteria	Marketable assets	Non-marketable assets	
Type of asset(s)	ECB debt certificates, other marketable debt instruments	Credit claims	Retail mortgage-debt instruments (RMBDs)
Credit standards	The asset must meet quality requirements. These are assessed using ECAF (Eurosystem credit assessment framework) rules for marketable assets.	The debtor/guarantor must meet high credit standards. Creditworthiness is assessed using the ECAF rules for credit claims.	The asset must meet high credit standards. The high credit standards are assessed using ECAF rules for RMBDs.
Place of issue	European Economic Area (EEA)	-	-
Settlement / handling procedures	Place of settlement: Eurozone. Instruments must be centrally deposited in book-entry form with national central banks (NCBs) or a securities settlement system (SSS), fulfilling the standards and assessment procedures detailed in the Eurosystem User Assessment Framework.	Eurosystem procedures	Eurosystem procedures
Type of issuer/debtor/guarantor	NCBs, public sector, private sector, international and supranational Institutions	Public sector, non-financial corporations, international and supranational Institutions	Credit institutions that are eligible counterparties
Issuer, debtor or guarantor headquarters	Issuer: EEA or G-10 countries outside the EEA; Debtor: EEA; guarantor: EEA	Eurozone	Eurozone
Acceptable markets	Regulated markets, non-regulated markets accepted by the ECB	-	-
Currency	Euro	Euro	Euro
Minimum amount	-	Minimum size threshold at the time of Submission of the credit claim - domestic use: choice of the NCB; - cross-border use: common threshold of EUR 0.5m.	-

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

Collateral rules overview (as specified in the General framework) (continued)

Legal basis	For asset-backed securities (ABS), the acquisition of the underlying assets must be governed by the law of an EU member state. The law governing underlying credit claims must be the law of an EEA country.	Governing law for credit claim agreement and mobilisation: law of a member state of the Eurozone. The total number of different jurisdictions applicable to a) the counterparty, b) the creditor, c) the debtor, d) the guarantor (if relevant), e) the credit claim agreement, f) and the mobilisation agreement shall not exceed two in order to use the credit claims as collateral.	-
Cross-border use	Yes	Yes	Yes

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

Precise differentiation of possible collateral through respective definitions

In accordance with Part 4, Title II, Chapter 1, Articles 62 and 63 of the General Framework, the ECB accepts bonds with fixed, unconditional nominal volume as collateral (in contrast to convertible bonds, for example) as well as bonds for which the capital amount is generally linked to an inflation index in the Eurozone at a certain date and do not have any other complex features. In addition to fixed coupons, zero coupon bonds or those with floating coupons based on a reference interest rate, or bonds that depend on sustainability performance targets verified by independent third parties, are also eligible. Bonds where the coupon payment is based on the return of a sovereign bond or an index of several sovereign bonds in the Eurozone with a maturity of not more than one year or the interest payments are linked to inflation (Eurozone) are possible for collateral purposes. As far as ABS are concerned, special rules apply with regard to the first condition (fixed, unconditional nominal amount). The ECB generally differentiates between two groups of collateral: marketable and non-marketable assets, which differ with regard to their acceptance criteria, in particular.

Temporary Framework extends collateral rules

Apart from assets that meet these acceptance criteria, the Temporary Framework extends the criteria to some extent. Under certain conditions and subject to valuation adjustments, certain bonds that are denominated in GBP, JPY or USD may be accepted for collateral purposes, while the credit threshold limits may be waived for debt securities that were issued or are guaranteed by IMF/EU programme states, provided that the relevant Member States meet the requirements associated with the financial support and/or the macro-economic programme in the opinion of the ECB's Governing Council.

Valuation discount (haircut) for collateral is derived from allocation to a haircut category

ECB-compliant collateral (marketable) is divided into five haircut categories, which differ with regard to issuer classification and type of collateral. The haircut category is the key factor in determining haircuts to which certain debt securities are subject. The haircuts also differ on the basis of residual term to maturity and coupon structure. Haircuts for bonds with variable coupons correspond to those of fixed-interest bonds (of the respective category).

Haircut categories – an overview

Category I	Category II	Category III	Category IV	Category V
Central government debt instruments	Regional government and local authority (RGLA) debt instruments	Legislative covered bonds other than jumbo covered bonds	Unsecured debt instruments issued by credit institutions and agencies which are credit institutions that do not fulfil the quantitative criteria defined in Annex XIIa of Guideline (EU) 2015/510 (ECB/2014/60)	ABS
ECB debt certificates	Debt instruments placed by issuers (banks and non-banks) that are classified by the Eurosystem as agencies with a public development mission and that fulfil the quantitative criteria defined in Annex XIIa of Guideline (EU) 2015/510 (ECB/2014/60)	Multi-cédulas	Unsecured debt instruments issued by financial corporations other than credit institutions	
Debt certificates issued by the NCBs in their respective Member State prior to introduction of the euro	Debt instruments issued by multilateral development banks and international organisations	Debt instruments issued by non-financial corporates, corporations in the government sector and agencies which are non-credit institutions that do not fulfil the quantitative criteria defined in Annex XIIa of Guideline (EU) 2015/510 (ECB/2014/60).		
	jumbo covered bonds			

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

Coronavirus crisis: temporary adjustment to haircut categories extended until June 2023

On [07 April 2020](#), the ECB announced comprehensive temporary adjustments to the security framework that were aimed at mitigating the impact of potential liquidity tensions on the financial markets across the single currency area. Originally, the [temporary adjustment](#) envisaged a general reduction in security discounts of 20% up to September 2021 (before ultimately being extended through to June 2022). Through a resolution adopted by the ECB Governing Council on 23 March 2022, this is to be gradually ended in three steps: since 8 July 2022, there has been a general reduction in haircuts of 10%, which will be in place until June 2023. In the final step, the easing measures for central bank-eligible collateral are set to generally expire in March 2024.

Haircuts by haircut category and rating – an overview (temporary adjustment)

Credit quality	Residual maturity (years)(*)	Haircut category												Category V
		Category I			Category II			Category III			Category IV			
		fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	
AAA to A-	0-1	0.5%	0.5%	0.5%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	6.8%	6.8%	6.8%	3.6%
	1-3	0.9%	1.8%	0.5%	1.4%	2.3%	0.9%	1.8%	2.7%	0.9%	9.0%	9.5%	6.8%	4.1%
	3-5	1.4%	2.3%	0.5%	2.3%	3.2%	0.9%	2.7%	4.1%	0.9%	11.7%	12.2%	6.8%	4.5%
	5-7	1.8%	2.7%	0.9%	3.2%	4.1%	1.4%	4.1%	5.4%	1.8%	13.1%	14.0%	9.0%	8.1%
	7-10	2.7%	3.6%	1.4%	4.1%	5.9%	2.3%	5.4%	7.2%	2.7%	14.9%	16.2%	11.7%	11.7%
	>10	4.5%	6.3%	1.8%	7.2%	9.5%	3.2%	8.1%	11.7%	4.1%	18.0%	23.0%	13.1%	18.0%
BBB+ to BBB-	0-1	5.4%	5.4%	5.4%	6.3%	6.3%	6.3%	7.2%	7.2%	7.2%	11.7%	11.7%	11.7%	
	1-3	6.3%	7.2%	5.4%	8.6%	12.2%	6.3%	10.8%	13.5%	7.2%	20.3%	22.5%	11.7%	
	3-5	8.1%	9.0%	5.4%	12.2%	16.7%	6.3%	14.9%	19.8%	7.2%	25.2%	29.3%	11.7%	Not permissible
	5-7	9.0%	10.4%	6.3%	12.6%	18.0%	8.6%	16.7%	23.4%	10.8%	27.5%	31.5%	20.3%	
	7-10	10.4%	11.7%	8.1%	14.4%	22.1%	12.2%	17.1%	25.2%	14.9%	27.9%	33.3%	25.2%	
	>10	11.7%	14.4%	9.0%	17.1%	26.6%	12.6%	17.6%	27.0%	16.7%	28.4%	34.2%	27.5%	

Anticipated haircuts by haircut category and rating – an overview from June 2023 onwards

Credit quality	Residual maturity (years)(*)	Haircut category												Category V
		Category I			Category II			Category III			Category IV			
		fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	fixed coupon	zero coupon	floating coupon	
AAA to A-	0-1	0.5%	0.5%	0.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	7.5%	7.5%	7.5%	4.0%
	1-3	1.0%	2.0%	0.5%	1.5%	2.5%	1.0%	2.0%	3.0%	1.0%	10.0%	10.5%	7.5%	4.5%
	3-5	1.5%	2.5%	0.5%	2.5%	3.5%	1.0%	3.0%	4.5%	1.0%	13.0%	13.5%	7.5%	5.0%
	5-7	2.0%	3.0%	1.0%	3.5%	4.5%	1.5%	4.5%	6.0%	2.0%	14.5%	15.5%	10.0%	9.0%
	7-10	3.0%	4.0%	1.5%	4.5%	6.5%	2.5%	6.0%	8.0%	3.0%	16.5%	18.0%	13.0%	13.0%
	>10	5.0%	7.0%	2.0%	8.0%	10.5%	3.5%	9.0%	13.0%	4.5%	20.0%	25.5%	14.5%	20.0%
BBB+ to BBB-	0-1	6.0%	6.0%	6.0%	7.0%	7.0%	7.0%	8.0%	8.0%	8.0%	13.0%	13.0%	13.0%	
	1-3	7.0%	8.0%	6.0%	9.5%	13.5%	7.0%	12.0%	15.0%	8.0%	22.5%	25.0%	13.0%	
	3-5	9.0%	10.0%	6.0%	13.5%	18.5%	7.0%	16.5%	22.0%	8.0%	28.0%	32.5%	13.0%	Not permissible
	5-7	10.0%	11.5%	7.0%	14.0%	20.0%	9.5%	18.5%	26.0%	12.0%	30.5%	35.0%	22.5%	
	7-10	11.5%	13.0%	9.0%	16.0%	24.5%	13.5%	19.0%	28.0%	16.5%	31.0%	37.0%	28.0%	
	>10	13.0%	16.0%	10.0%	19.0%	29.5%	14.0%	19.5%	30.0%	18.5%	31.5%	38.0%	30.5%	

(*), i.e. [0-1] residual maturity less than 1 year, [1-3] residual maturity equal to or greater than 1 year and less than 3 years, etc.

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

Far more agencies classified as eligible collateral

The revised Directive ECB/2019/11, which includes some European agencies in the list of assets eligible as collateral for the first time, has been in force since 5 August 2019. Since then, all agencies recognised by the ECB, which – in addition to being eligible for purchase under the PSPP and PEPP – possibly qualify for Category II if they meet both quantitative criteria, have been listed on the ECB [website](#): outstanding amount of marketable assets EUR >10bn and nominal value of EUR benchmarks average >50% of the outstanding amount. These criteria are re-evaluated every year over an observation period of one year (01 August through to 31 July).

Consequences of different classifications

While BNG and CDP will move from Category IV to II, FADE and ÖBB switched from haircut category III to II. It can be inferred from this that a smaller valuation haircut applies to longer maturities (e.g., AAA-A- rating, 6 years maturity: Category II: 3.2%; Category IV: 13.1%). In addition to these beneficiaries, two agencies were deleted and are therefore no longer classified in Category II: our understanding is that EAA and FMSWER therefore fell into haircut category III. However, the respective guarantee structure is likely to be far more significant for the valuation of bonds, which is why no significantly negative effects were expected for either issuer.

List of eligible preferred issuers**Name of agency recognised by the ECB****Compliance with quantitative criteria**

Action Logement Services (ALS)	
ADIF-Alta Velocidad	
Agence centrale des organismes de sécurité sociale (ACOSS)	
Agence de Promotion Immobilière du Brabant wallon (APIBW)	
Agence Française de Développement (AFD)	yes
Agence France Locale (AFL)	
Agenzia nazionale per l'attrazione degli investimenti e lo sviluppo d'impresa S.p.A. (Invitalia)	
Alliade Habitat	
Assistance Publique-Hôpitaux de Paris (AP-HP)	
Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (ASFINAG)	
Batigère	
BNG Bank N.V.	yes
Bayerischen Landesbodenkreditanstalt (BayernLabo)	
Bpifrance Financement	yes
Bremer Aufbau-Bank	
Caisse d'Amortissement de la dette sociale (CADES)	yes
Caisse des dépôts et consignations (CDC)	
Cassa del Trentino S.p.A.	
Cassa Depositi e prestiti S.p.A. (CDP)	yes
Caisse Nationale des Autoroutes (CNA)	
CDC Habitat	
Clairsienne	
Clesence	
Družba za avtoceste v Republiki Sloveniji, d.d. (DARS)	
Finlombarda S.p.A.	
Finnvera PLC	
Fondo de Amortización del Déficit Eléctrico, Fondo de Titulización de Activos (FADE)	yes
Fonds Du Logement Des Familles Nombreuses De Wallonie Scrl (FLW)	
Fonds régional bruxellois de refinancement des trésoreries communales (FRTC)	
Grand Delta Habitat	
Groupement des Centres Hospitaliers Universitaires (CHU) / Centres Hospitaliers Régionaux (CHR)	
Halpades Societe Anonyme HLM	
Hamburgische Investitions- und Förderbank (IFB Hamburg)	
Housing Finance Agency plc (HFA)	
Île-de-France Mobilités (previously STIF)	
Infrabel SA	
Infraestruturas de Portugal S.A. (IP)	
IN'LI	
Instituto Catalán De Finanzas (ICF)	
Instituto de Crédito Oficial (ICO)	
Instituto de Finanzas de Cantabria (ICAF)	
Investitions und Strukturbank Rheinland-Pfalz	
Investitionsbank Berlin (IBB)	
Investitionsbank des Landes Brandenburg (ILB)	

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

List of eligible preferred issuers (continued)**Name of agency recognised by the ECB****Compliance with quantitative criteria**

Investitionsbank Schleswig-Holstein (IB.SH)	
Investitionsbank Sachsen-Anhalt	
Attistibas finanšu institucija Altum	
Kreditanstalt für Wiederaufbau (KfW)	yes
Kuntarahoitus Oyj/ Municipality Finance PLC (MuniFin)	yes
Landesförderinstitut Mecklenburg-Vorpommern	
Landeskreditbank Baden-Württemberg - Förderbank (L-Bank)	yes
Landwirtschaftliche Rentenbank	yes
LfA Förderbank Bayern	
Maisons et cites Soginorpa	
Malta Development Bank	
NBank	
Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO)	
Nederlandse Waterschapsbank N.V. (NWB Bank)	yes
Néolia	
NRW.BANK	yes
ÖBB-Infrastruktur A.G.	yes
Oesterreichische Kontrollbank A.G. (OeKB)	yes
PARPÚBLICA - Participações Públicas S.A. (SGPS)	
Saarländische Investitions-kreditbank AG	
Sächsische Aufbaubank – Förderbank (SAB)	
SFIL S.A.	
SID – Slovenska izvozna in razvojna banka, d.d., Ljubljana (SID banka)	
Slovenská záručná a rozvojová banka, a.s. (SZRB)	
Slovenski državni holding, d.d. (SDH)	
SNCF Réseau	yes
Société du Grand Paris (SGP)	yes
Société wallonne du crédit social SA (SWCS)	
Société Wallonne du Logement SA (SWL)	
Thüringer Aufbaubank	
Työllisyssrahassto (previously Työttömyysvakuutusrahasto (TVR))	
UAB Valstybės investicinis kapitalas (VIK)	
Unédic	yes
Valloire Habitat	
Vilogia	
Wirtschafts- und Infrastrukturbank Hessen (WIBank)	
Wohnbau Burgenland GmbH	
Source: ECB, NORD/LB Markets Strategy & Floor Research	

Issuers classified as supnationals by the ECB

Institution (Bloomberg ticker)	Region
Council of Europe Development Bank (COE)	Europe
European Atomic Energy Community (EURAT)	Europe
European Bank for Reconstruction and Development (EBRD)	Europe
European Financial Stability Facility (EFSF)	Europe
European Investment Bank (EIB)	Europe
European Investment Fund	Europe
European Stability Mechanism (ESM)	Europe
European Union (EU)	Europe
Nordic Investment Bank (NIB)	Europe
African Development Bank (AFDB)	Non-Europe
Asian Development Bank (ASIA)	Non-Europe
Asian Infrastructure Investment Bank (AIIB)	Non-Europe
Bank for International Settlements (BIS)	Non-Europe
Caribbean Development Bank (CARDEV)	Non-Europe
Inter-American Development Bank (IADB)	Non-Europe
International Bank for Reconstruction and Development (IBRD)	Non-Europe
International Development Association (IDAWBG)	Non-Europe
International Finance Corporation (IFC)	Non-Europe
International Finance Facility for Immunisation (IFFIM)	Non-Europe
International Monetary Fund	Non-Europe
Islamic Development Bank (ISDB)	Non-Europe
Multilateral Investment Guarantee Agency	Non-Europe

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

Haircut category classification of agencies and supnationals

Bloomberg ticker	Country/type	Haircut category	Rating (Fitch/Moody's/S&P)
EFSF	Supranational	II	AA/Aaa/AA
ESM	Supranational	II	AAA/Aaa/AAA
EU	Supranational	II	AAA/Aaa/AA+
EIB	Supranational	II	AAA/Aaa/AAA
EBRD	Supranational	II	AAA/Aaa/AAA
NIB	Supranational	II	-/Aaa/AAA
COE	Supranational	II	AA+/Aa1/AAA
EUROF	Supranational	-	AA/Aa2/AA
IBRD	Supranational	II	AAAu/Aaa/AAA
IADB	Supranational	II	AAAu/Aaa/AAA
ASIA	Supranational	II	AAA/Aaa/AAA
IFC	Supranational	II	-/Aaa/AAA
AFDB	Supranational	II	AAA/Aaa/AAA
CAF	Supranational	-	A+/Aa3/AA-
ISDB	Supranational	II	AAA/Aaa/AAA
KFW	Germany	II	AAAu/Aaa/AAA
RENTEN	Germany	II	AAA/Aaa/AAA
FMSWER	Germany	III	-/Aaa/AAA
ERSTAA	Germany	III	AAA/Aa1/AA
NRWBK	Germany	II	AAA/Aa1/AA
LBANK	Germany	II	AAAu/Aaa/AA+
IBB	Germany	IV	AAA/-/-
BAYLAN	Germany	IV	-/Aaa/-
BYLABO	Germany	IV	-/Aaa/-
WIBANK	Germany	IV	-/-/AA+
IBBSH	Germany	IV	AAA/-/-
IFBHH	Germany	IV	AAA/-/-
SABFOE	Germany	IV	-/-/AAA
ILBB	Germany	IV	AAA/-/-
ISBRLP	Germany	IV	AAA/-/-
CADES	France	II	AAu/Aa2/AA
AGFRNC	France	II	AA/-/AA
UNEDIC	France	II	AA/Aa2/-
CDCEPS	France	IV	AA/Aa2/AA
OSEOFI	France	II	AA/Aa2/-
SAGESS	France	III	-/-/AA
AFLBNK	France	IV	-/Aa3/AA-
SFILFR	France	IV	-/Aa3/AA
SOGRPR	France	II	AA/Aa2/-
CCCI	France	IV	AAu/Aa2/AAu (guaranteed) A/Baa2/- (not guaranteed)

Haircut category classification of agencies and supnationals (continued)

Bloomberg ticker	Country/type	Haircut category	Rating (Fitch/Moody's/S&P)
BNG	The Netherlands	II	AAA/Aaa/AAA
NEDWBK	The Netherlands	II	-/Aaa/AAA
NEDFIN	The Netherlands	IV	AAA/-/AAA
OKB	Austria	II	-/Aa1/AA+
OBND	Austria	II	-/Aa1/AA+
ASFING	Austria	III	-/Aa1/AA+
KBN	Norway	IV	-/Aaa/AAA
SEK	Sweden	IV	-/Aa1/AA+
KOMINS	Sweden	IV	-/Aaa/AAA
KUNTA	Finland	II	-/Aa1/AA+
KOMMUN	Denmark	IV	-/Aaa/AAA
FINNVE	Finland	IV	AA+/Aa1/-
ICO	Spain	IV	A-/Baa1/A
FADE*	Spain	II	-/-/-
ADIFAL	Spain	III	A-/Baa2/-
CORES	Spain	III	A-/A
CDEP	Italy	II	BBB/Baa3/BBB
REFER	Portugal	III	-/Baa2/-
BGOSK	Poland	IV	A-/A
DEXGRP	Belgium/France	IV	AA-/Aa3/AA (guaranteed) BBB+/Baa3/BBB (not guaranteed)
JFM	Japan	IV	-/A1/A+
KDB	South Korea	-	AA-/Aa2/AA
EIBKOR	South Korea	-	AA-/Aa2/AA
DBJJP	Japan	IV	-/A1/A+ (guaranteed) -/A1/A (not guaranteed)
INDKOR	South Korea	-	AA-/Aa2/AA-
EDC	Canada	IV	-/Aaa/AAA
SDBC	China	-	-/A1/A+

* No issuer ratings available, although bonds are rated as in the case of Spain.

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

Comment

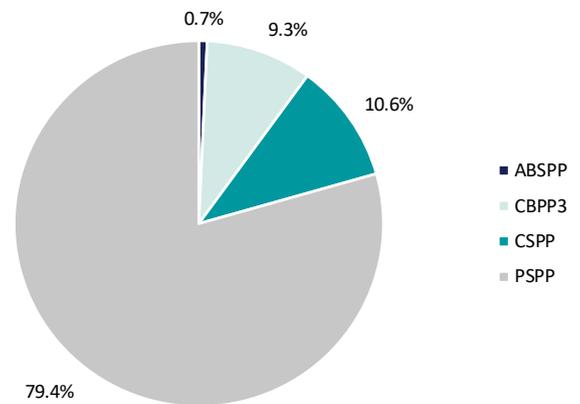
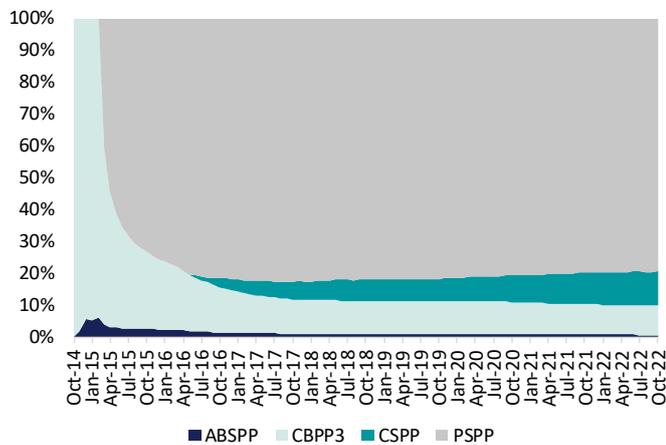
We regard the allocation of SSA issuers to the respective ECB liquidity categories as an important factor influencing the attractiveness of the individual institutions and therefore the risk premiums too. Especially in the case of agencies, we see the liquidity category as an aspect that can contribute to a differentiated relative classification. In particular, we consider the differences between agencies assigned to category II and institutions in liquidity category IV to be important factors in assessing the relative attractiveness of the issuers. From our perspective, this is similar to supranational issuers, where some bonds issued by Supras are not eligible as collateral for ECB repo transactions. The classification of public sector issuers' bonds into haircut categories has also changed. Preferential treatment of or discrimination against individual issuers' bonds is decided by quantitative criteria. These criteria are reviewed annually. Generally speaking, the choice of criteria means that larger agencies are preferred, because the focus is on the liquidity of the issuer's bonds.

ECB tracker

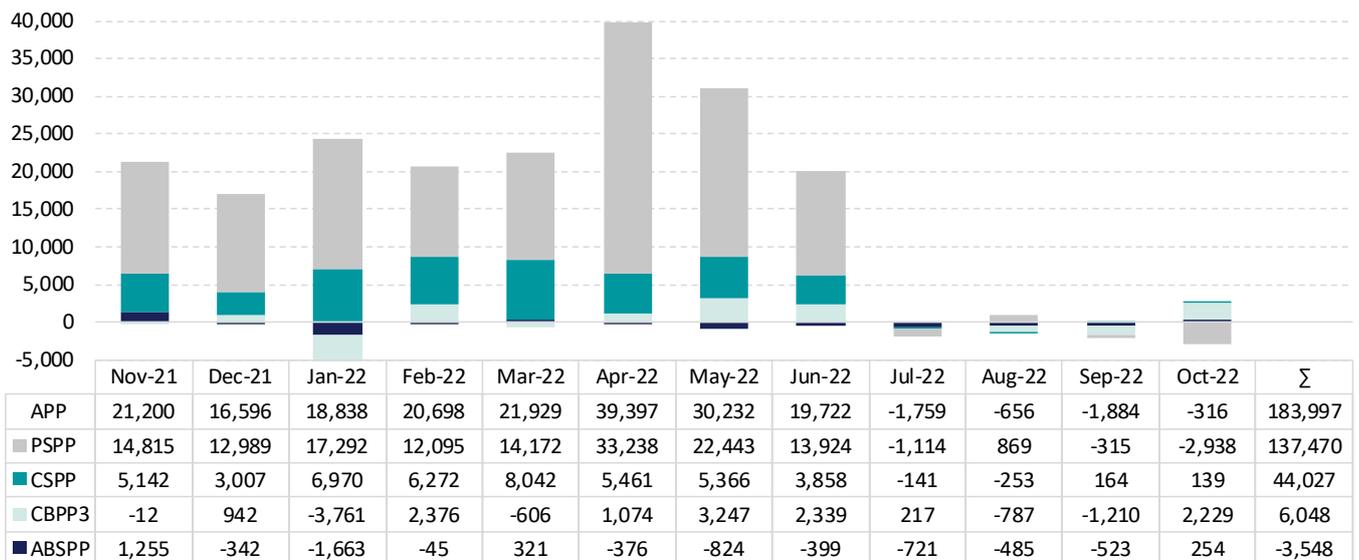
Asset Purchase Programme (APP)

	ABSPP	CBPP3	CSPP	PSPP	APP
Sep-22	23,594	300,157	344,388	2,588,118	3,256,257
Oct-22	23,849	302,385	344,527	2,585,180	3,255,941
Δ	+254	+2,229	+139	-2,938	-316

Portfolio structure

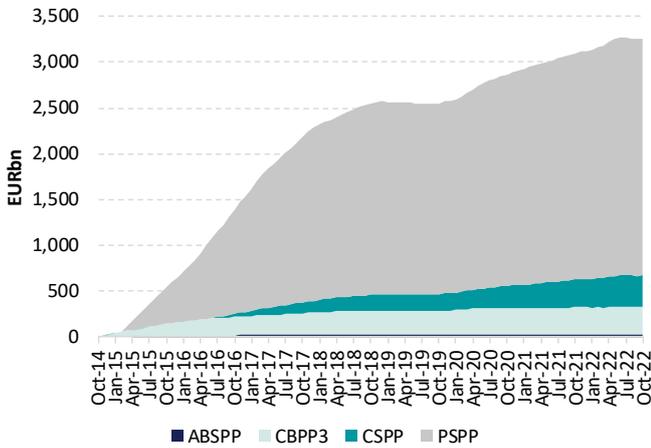


Monthly net purchases (in EURm)

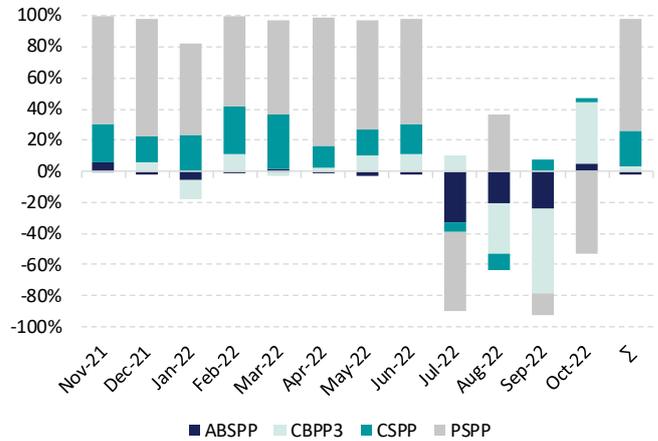


Source: ECB, NORD/LB Markets Strategy & Floor Research

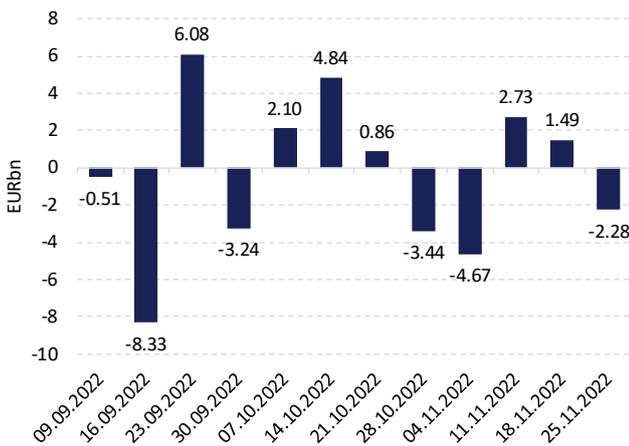
Portfolio development



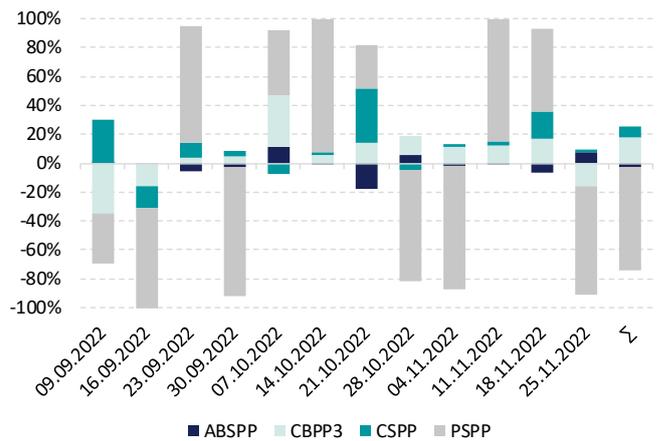
Distribution of monthly purchases



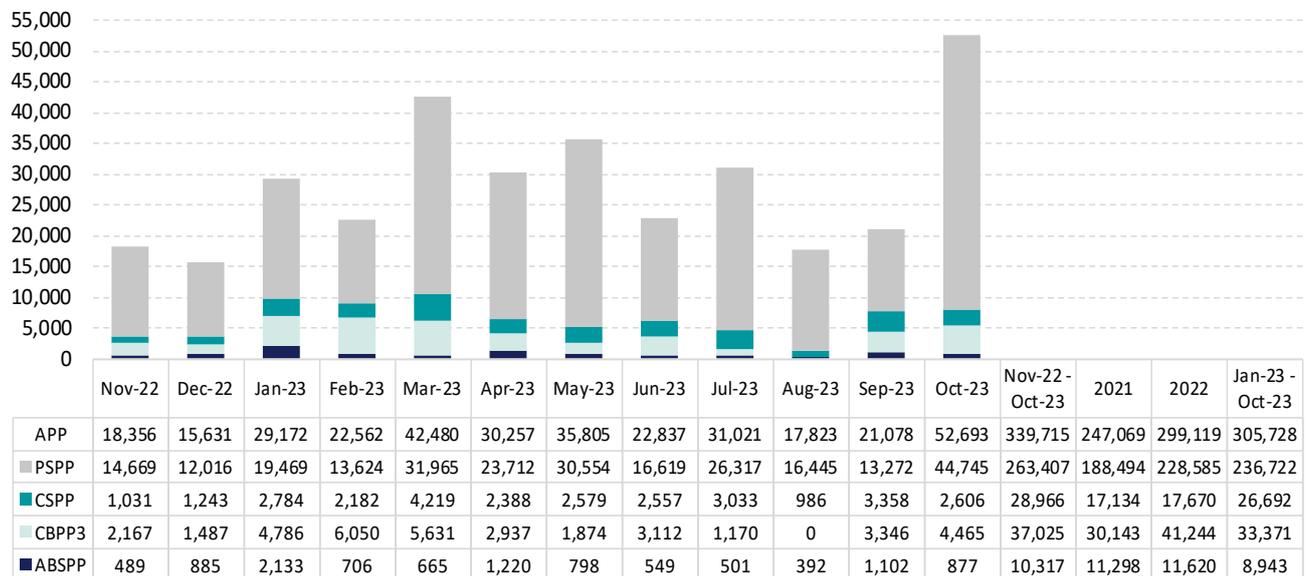
Weekly purchases



Distribution of weekly purchases



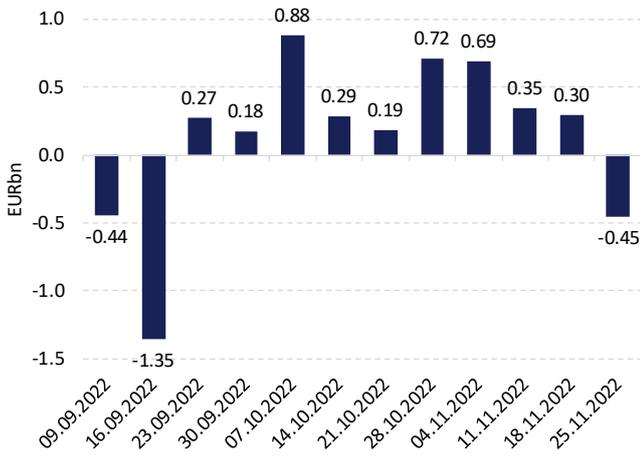
Expected monthly redemptions (in EURm)



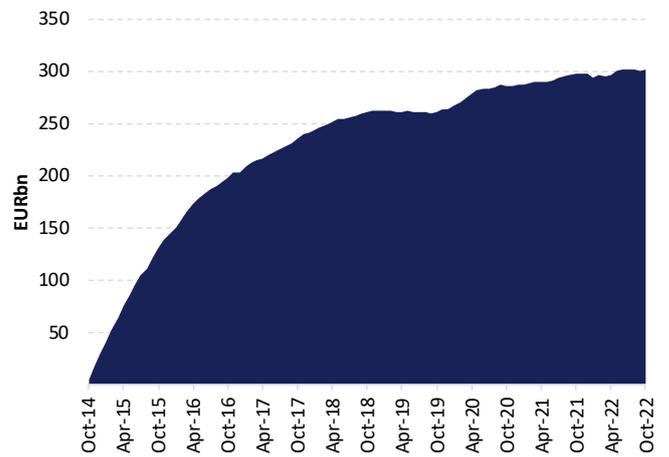
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

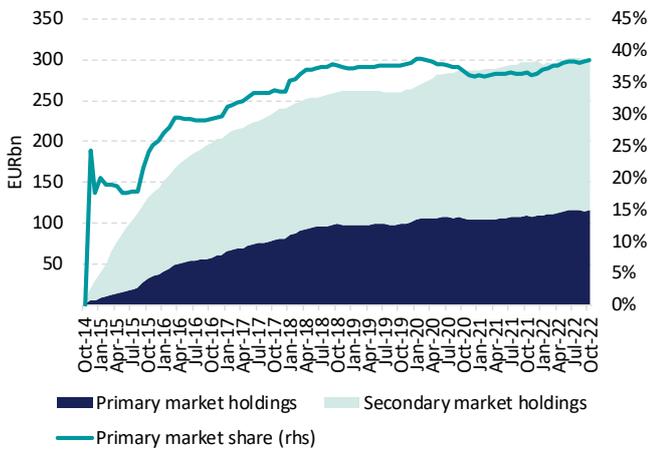
Weekly purchases



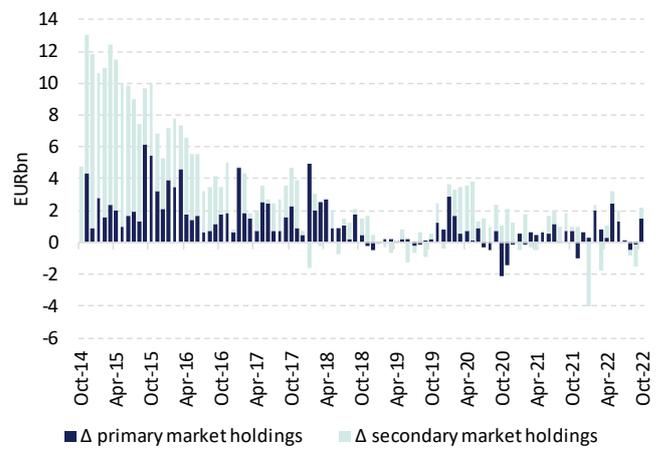
Development of CBPP3 volume



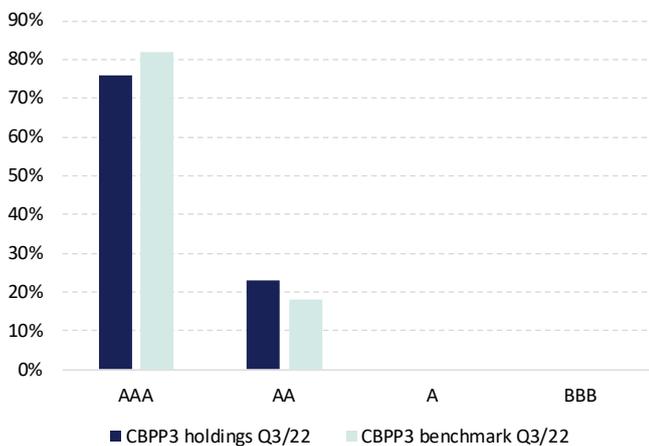
Primary and secondary market holdings



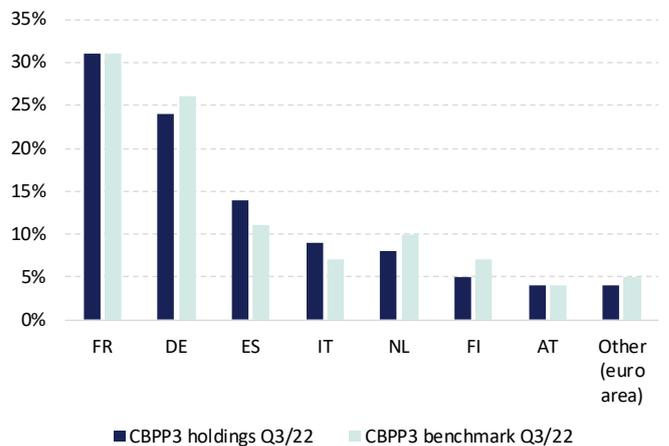
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating

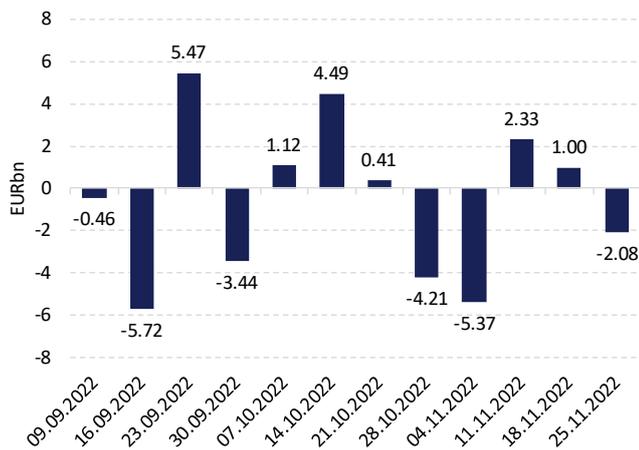


Distribution of CBPP3 by country of risk

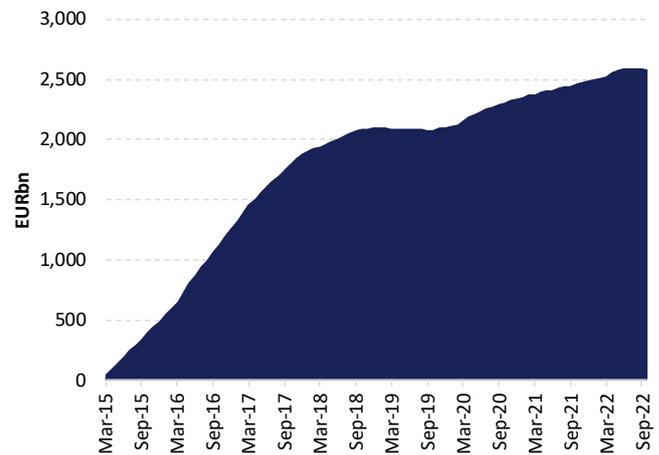


Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



Overall distribution of PSPP buying at month-end

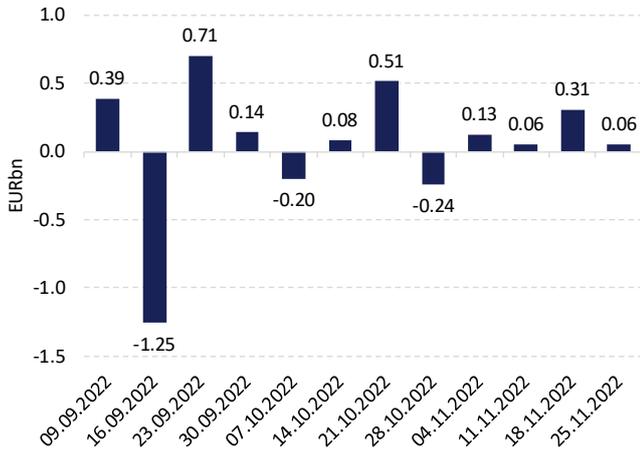
Jurisdiction	Adjusted distribution key ¹	Holdings (EURm)	Expected holdings (EURm) ²	Difference (EURm)	Current WAM of portfolio ³ (in years)	WAM of eligible universe ⁴ (in years)	Difference (in years)
AT	2.7%	77,742	74,029	3,713	7.3	8.2	-0.9
BE	3.4%	93,770	92,147	1,623	7.5	10.3	-2.8
CY	0.2%	4,452	5,442	-990	8.6	9.1	-0.5
DE	24.3%	665,502	666,749	-1,247	6.7	8.0	-1.3
EE	0.3%	488	7,125	-6,637	7.7	7.7	0.0
ES	11.0%	315,038	301,604	13,434	7.7	8.2	-0.5
FI	1.7%	43,825	46,459	-2,634	8.2	8.9	-0.7
FR	18.8%	531,880	516,583	15,297	6.7	8.6	-1.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	42,476	42,830	-354	8.2	10.5	-2.4
IT	15.7%	448,664	429,683	18,981	7.2	7.9	-0.7
LT	0.5%	5,964	14,638	-8,674	10.4	10.2	0.2
LU	0.3%	3,913	8,331	-4,418	5.8	7.8	-2.0
LV	0.4%	3,878	9,855	-5,977	8.9	9.0	-0.1
MT	0.1%	1,423	2,653	-1,230	11.2	9.6	1.6
NL	5.4%	132,873	148,225	-15,352	7.8	9.6	-1.8
PT	2.2%	53,609	59,197	-5,588	7.2	7.5	-0.3
SI	0.4%	11,125	12,178	-1,053	9.4	9.5	-0.1
SK	1.1%	18,494	28,966	-10,472	7.9	8.4	-0.5
SNAT	10.0%	285,655	274,077	11,578	8.1	9.4	-1.4
Total / Avg.	100.0%	2,740,773	2,740,773	0	7.2	8.5	-1.2

¹ Based on the ECB capital key, adjusted to include supras and the disqualification of Greece² Based on the adjusted distribution key³ Weighted average time to maturity of PSPP portfolio holdings⁴ Weighted average time to maturity of the bonds eligible for purchasing under the PSPP

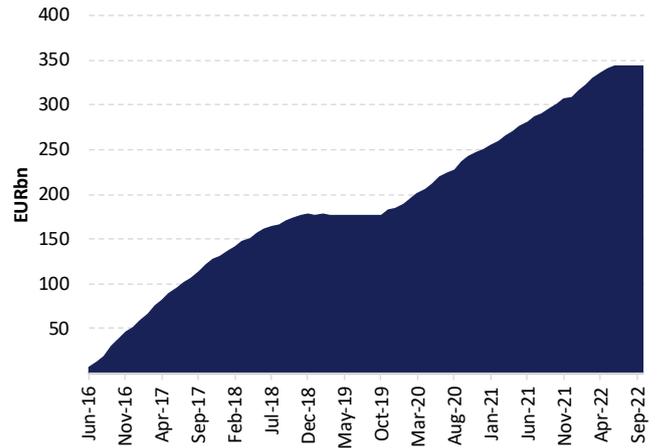
Source: ECB, NORD/LB Markets Strategy & Floor Research

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

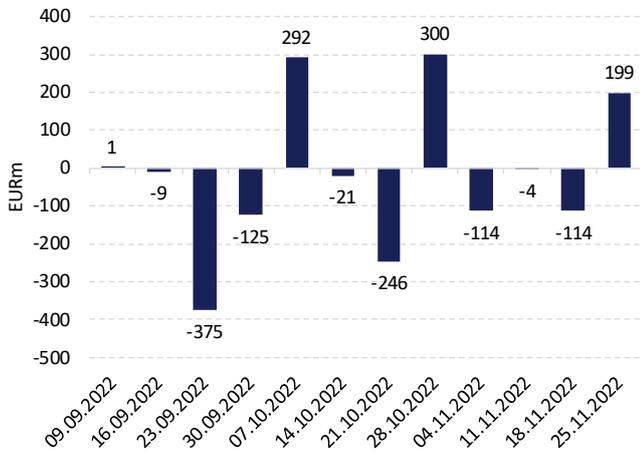


Development of CSPP volume

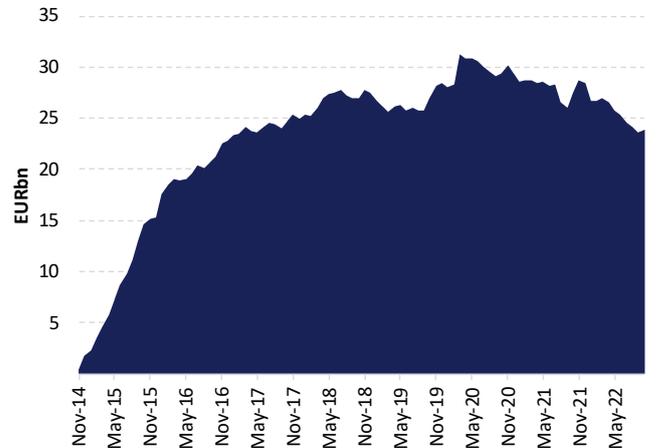


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



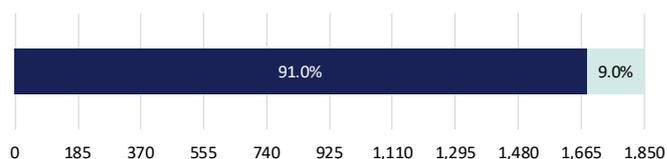
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

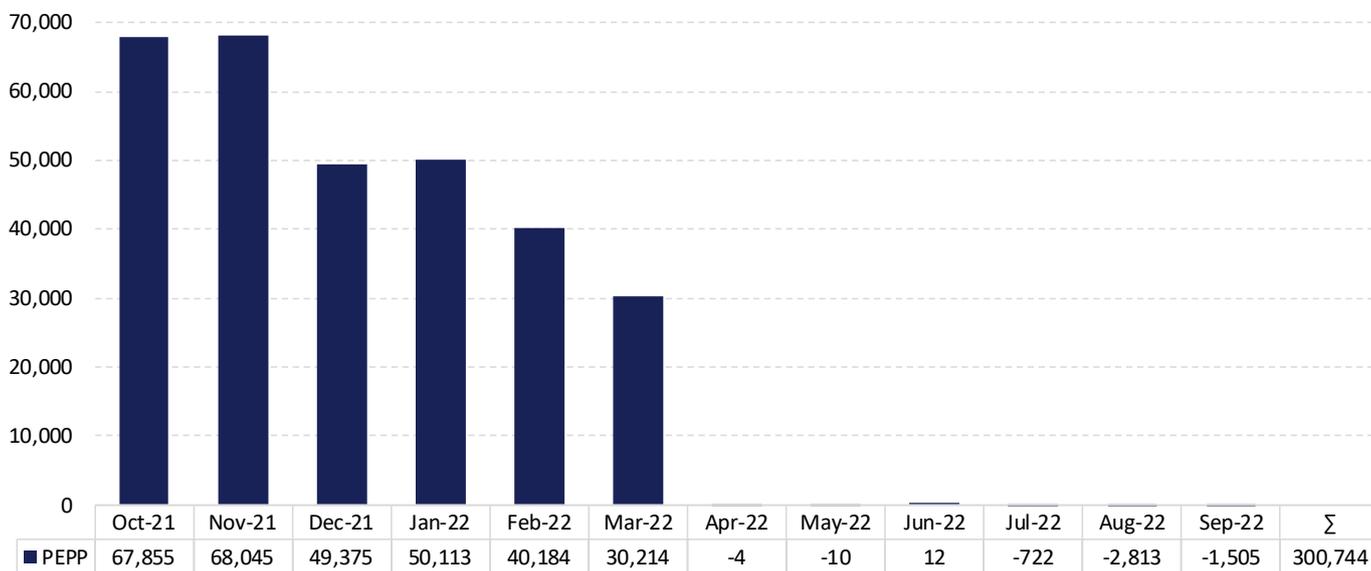
Holdings (in EURm)

	PEPP
Aug-22	1,714,539
Sep-22	1,713,035
Δ (net purchases)	-1,505

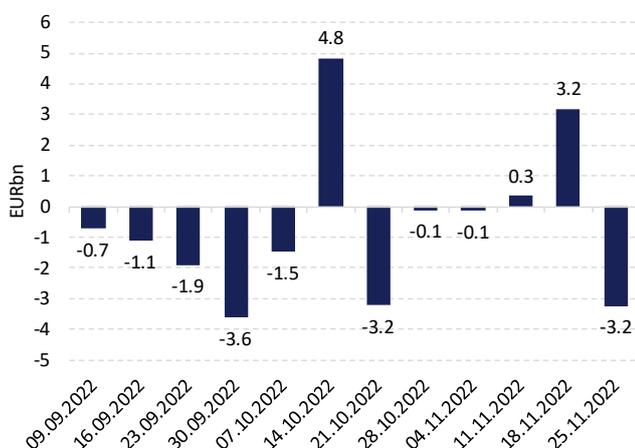
Invested share of PEPP envelope (in EURbn)



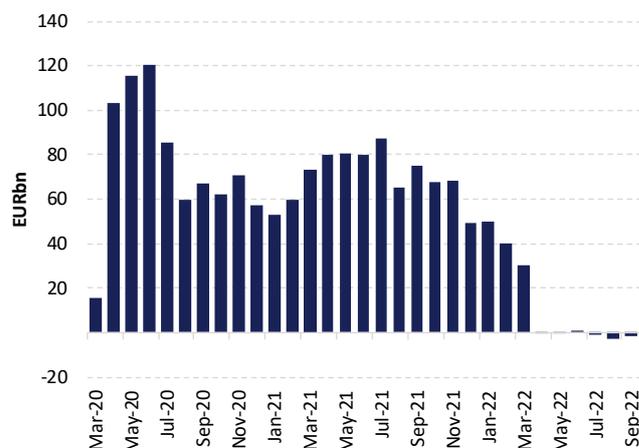
Monthly net purchases (in EURm)



Weekly purchases



Development of PEPP volume

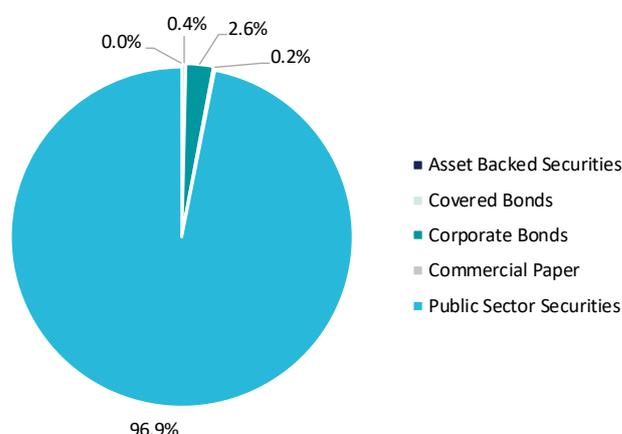
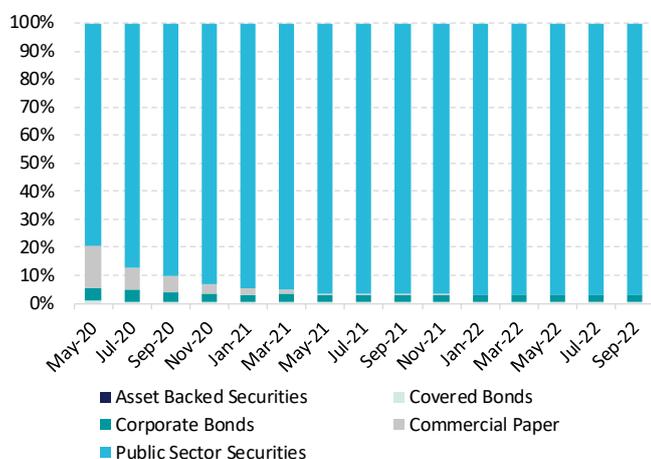


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

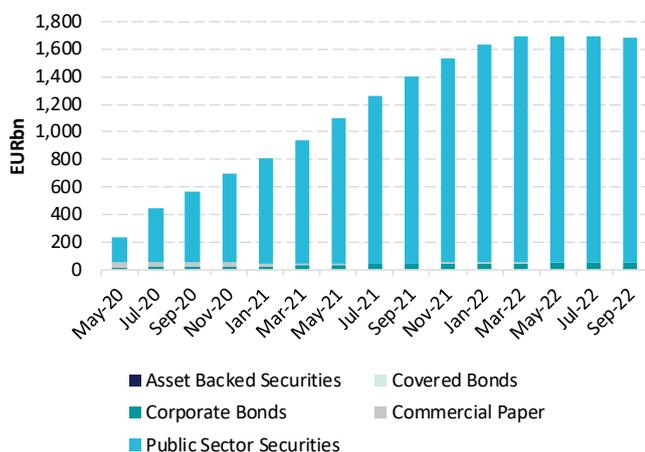
Holdings under the PEPP (in EURm)

	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jul-22	0	6,062	42,814	3,322	1,639,774	1,691,971
Sep-22	0	6,056	43,233	2,871	1,631,176	1,683,336
Δ (net purchases)	0	0	+453	-450	-4,320	-4,317

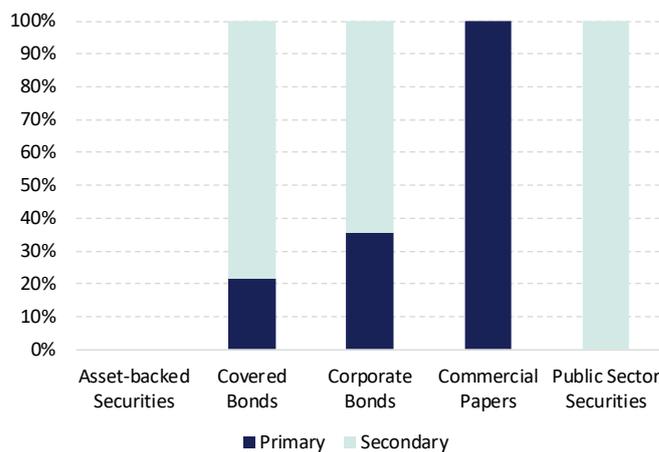
Portfolio structure



Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

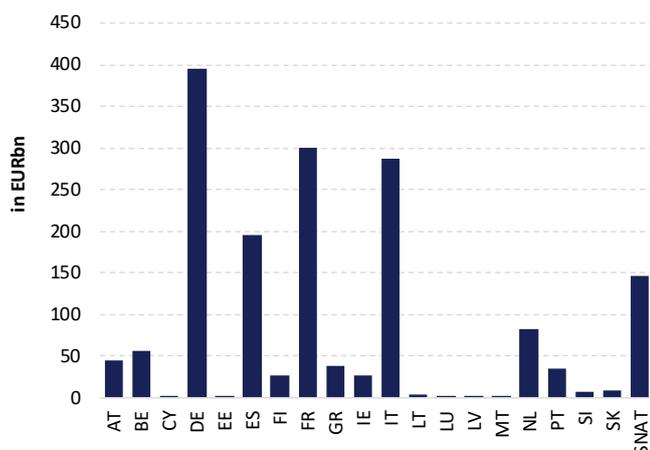
Sep-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,758	15,407	27,826	2,873	0
Share	0.0%	0.0%	21.4%	78.6%	35.6%	64.4%	100.0%	0.0%

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

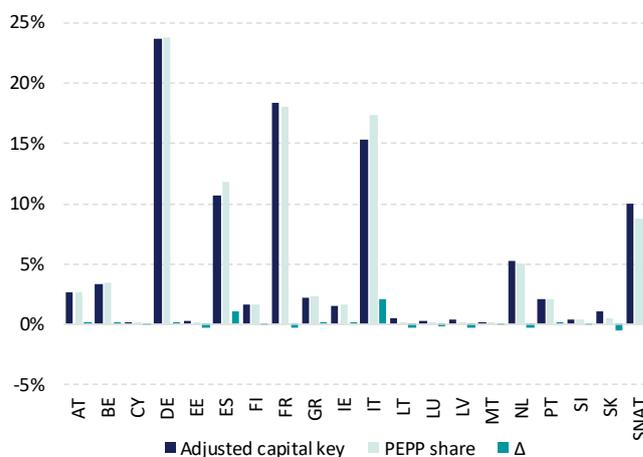
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key ¹	PEPP share	Deviations from the adj. distribution key ²	Current WAM ³ (in years)	WAM of eligible universe ⁴ (in years)	Difference (in years)
AT	44,120	2.6%	2.7%	0.0%	7.6	7.4	0.3
BE	56,872	3.3%	3.4%	0.1%	6.4	9.5	-3.2
CY	2,483	0.2%	0.1%	0.0%	8.6	8.0	0.6
DE	395,153	23.7%	23.8%	0.1%	6.8	6.9	-0.1
EE	256	0.3%	0.0%	-0.2%	7.7	6.3	1.4
ES	196,176	10.7%	11.8%	1.1%	7.4	7.4	0.0
FI	26,381	1.7%	1.6%	-0.1%	7.5	7.9	-0.4
FR	299,737	18.4%	18.0%	-0.3%	7.8	7.8	0.0
GR	38,877	2.2%	2.3%	0.1%	8.5	9.3	-0.8
IE	26,328	1.5%	1.6%	0.1%	8.6	10.0	-1.3
IT	287,821	15.3%	17.3%	2.0%	7.2	7.0	0.3
LT	3,208	0.5%	0.2%	-0.3%	9.9	9.3	0.6
LU	1,879	0.3%	0.1%	-0.2%	6.1	6.9	-0.7
LV	1,890	0.4%	0.1%	-0.2%	8.2	8.1	0.1
MT	605	0.1%	0.0%	-0.1%	10.8	8.8	2.0
NL	82,869	5.3%	5.0%	-0.3%	7.9	8.6	-0.7
PT	35,492	2.1%	2.1%	0.0%	6.5	7.2	-0.7
SI	6,567	0.4%	0.4%	0.0%	8.8	9.1	-0.3
SK	7,966	1.0%	0.5%	-0.6%	8.4	8.0	0.5
SNAT	145,914	10.0%	8.8%	-1.2%	10.5	8.7	1.8
Total / Avg.	1,660,594	100.0%	100.0%	0.0%	7.6	7.6	0.0

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key

¹ Based on the ECB capital key, adjusted to include supras ² Based on the adjusted distribution key³ Current WAM of public sector securities holdings under the PEPP ⁴ WAM of eligible universe of public sector securities holdings under the PEPP

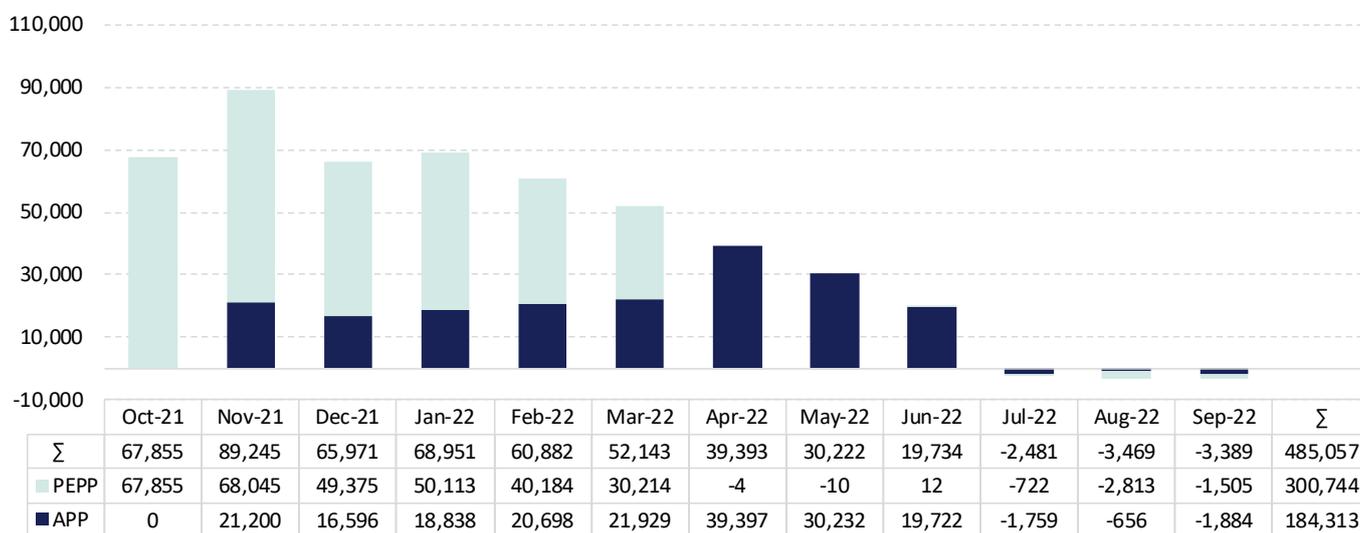
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

	APP	PEPP	APP & PEPP
Aug-22	3,256,257	1,714,539	4,970,796
Sep-22	3,255,941	1,713,035	4,968,976
Δ	-316	-1,505	-1,821

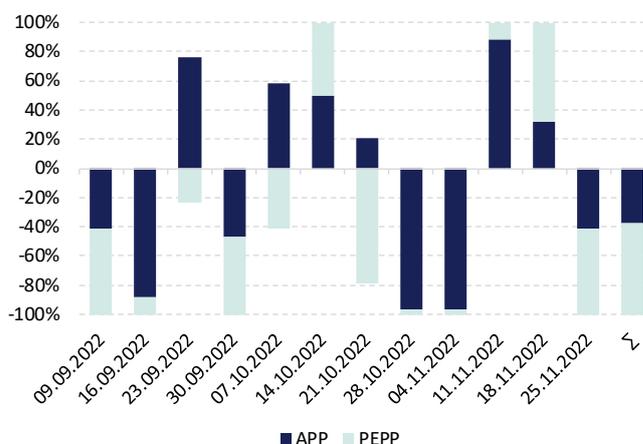
Monthly net purchases (in EURm)



Weekly purchases



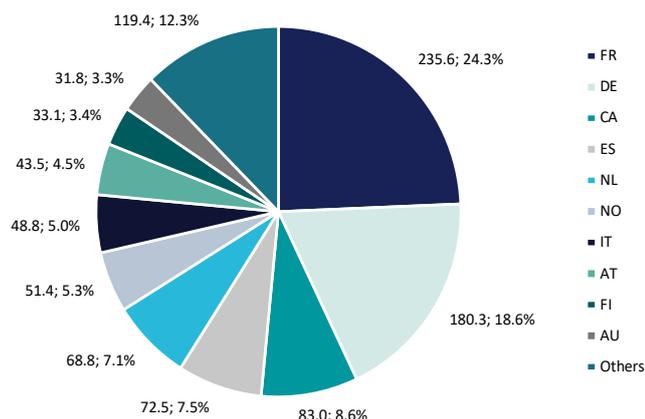
Distribution of weekly purchases



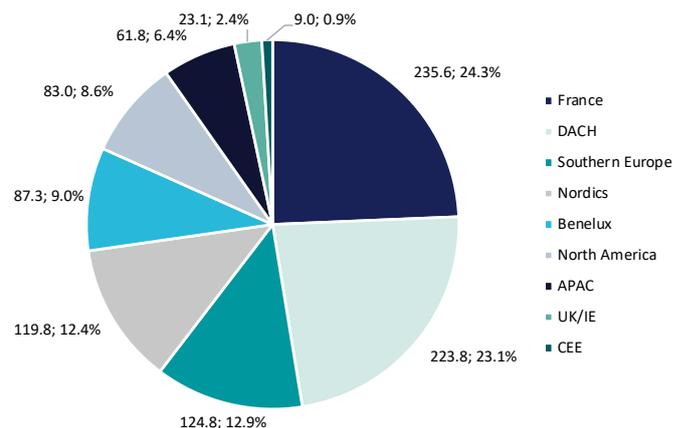
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures Covered Bonds

EUR benchmark volume by country (in EURbn)



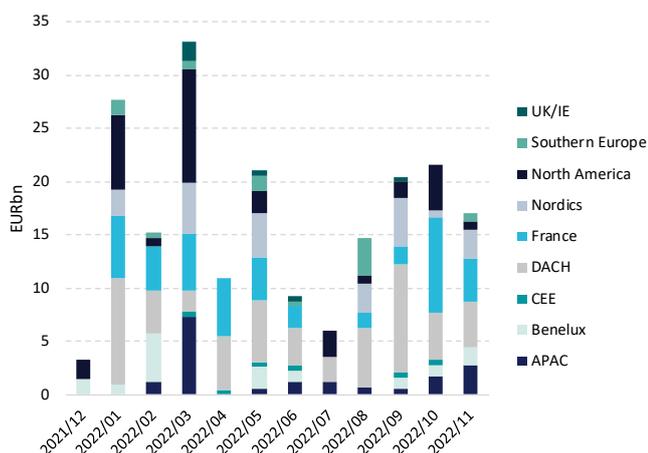
EUR benchmark volume by region (in EURbn)



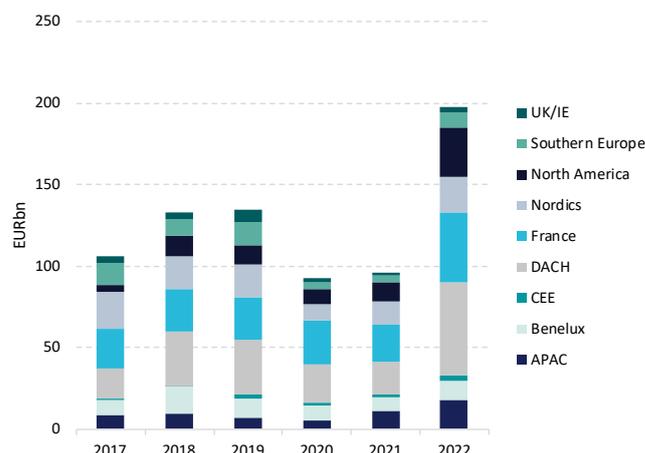
Top-10 jurisdictions

Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	235.6	227	15	0.95	9.8	5.3	0.97
2	DE	180.3	257	26	0.65	8.3	4.4	0.68
3	CA	83.0	64	0	1.26	5.6	2.9	0.53
4	ES	72.5	58	5	1.14	11.6	3.6	1.77
5	NL	68.8	70	1	0.92	11.3	7.1	0.81
6	NO	51.4	61	11	0.84	7.2	3.7	0.53
7	IT	48.8	59	2	0.79	9.2	3.8	1.28
8	AT	43.5	77	3	0.56	9.1	5.7	0.83
9	FI	33.1	35	3	0.94	7.3	3.8	0.75
10	AU	31.8	32	0	0.99	7.8	4.0	1.14

EUR benchmark issue volume by month

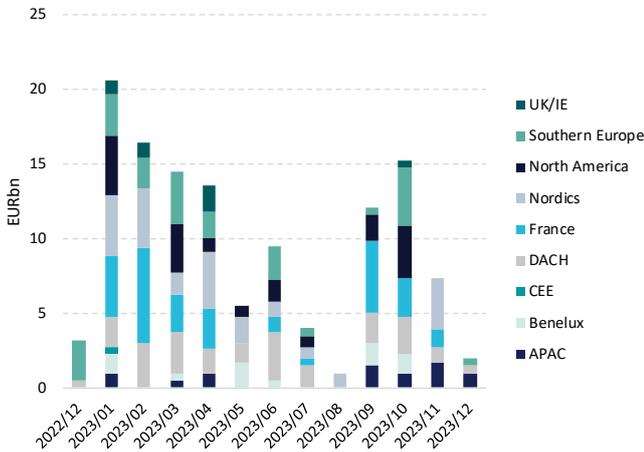


EUR benchmark issue volume by year

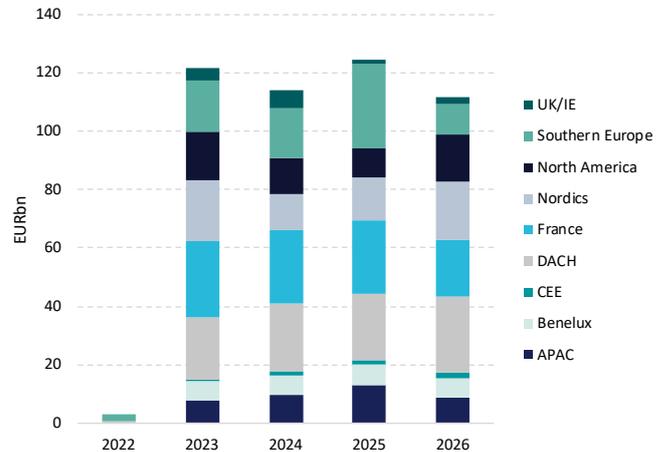


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

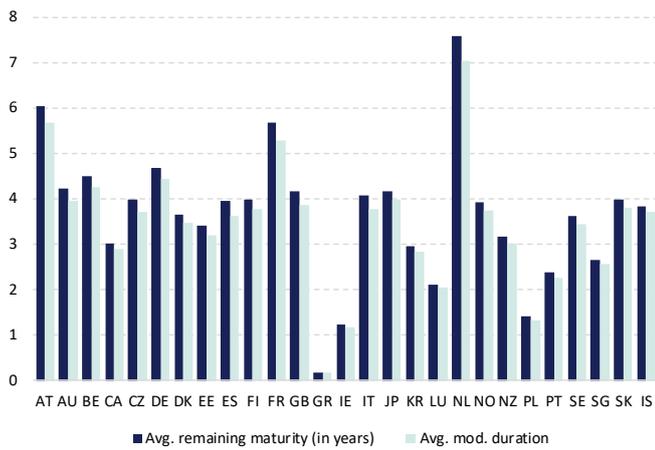
EUR benchmark maturities by month



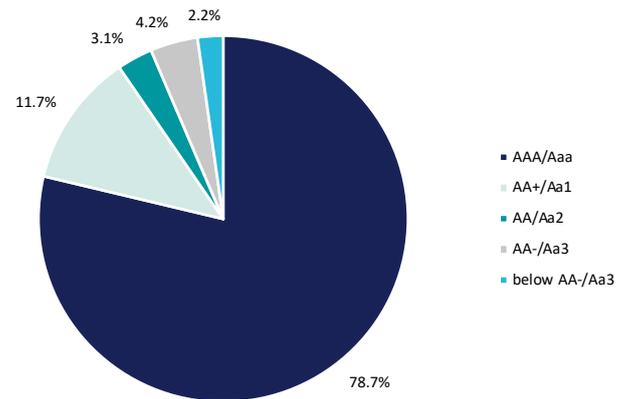
EUR benchmark maturities by year



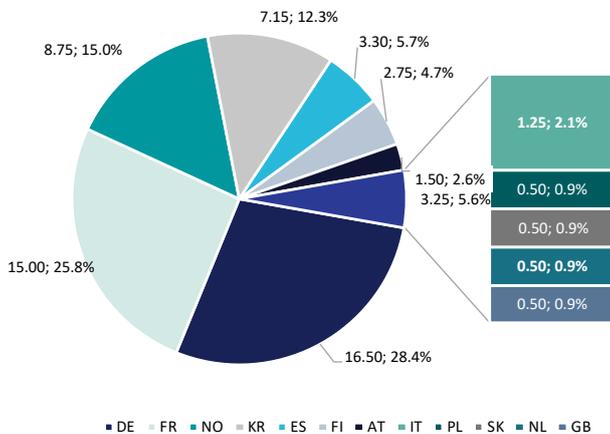
Modified duration and time to maturity by country



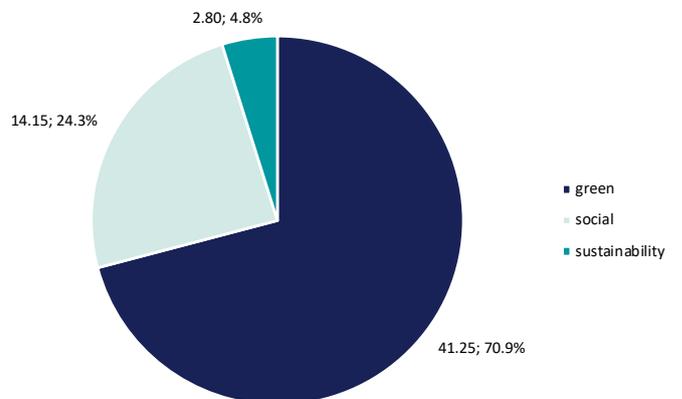
Rating distribution (volume weighted)



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

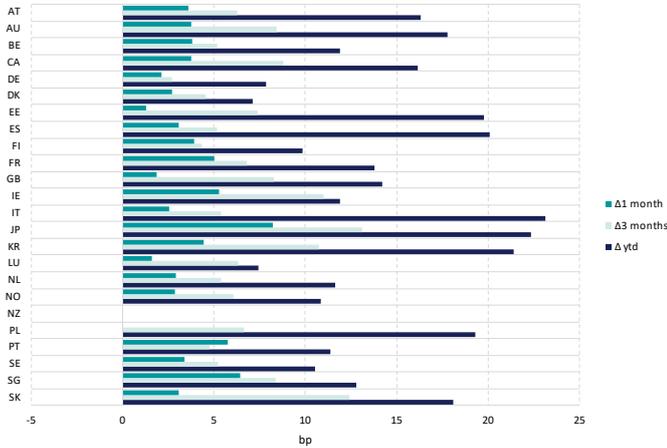


EUR benchmark volume (ESG) by type (in EURbn)

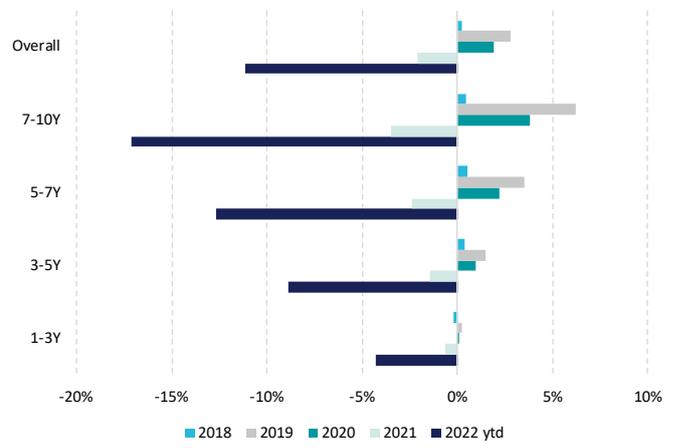


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

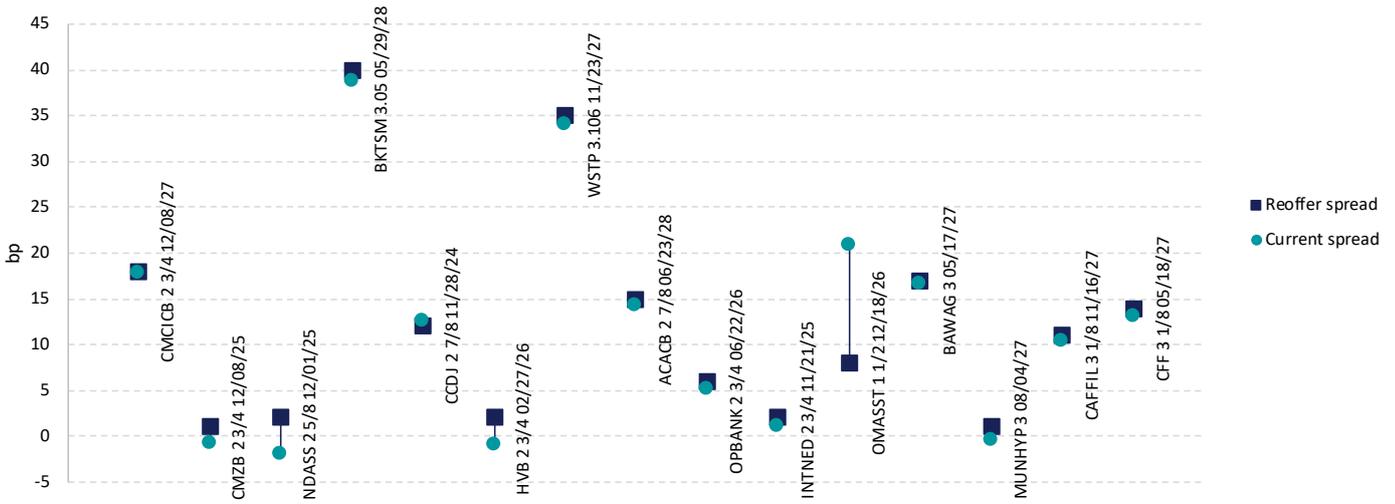
Spread development by country



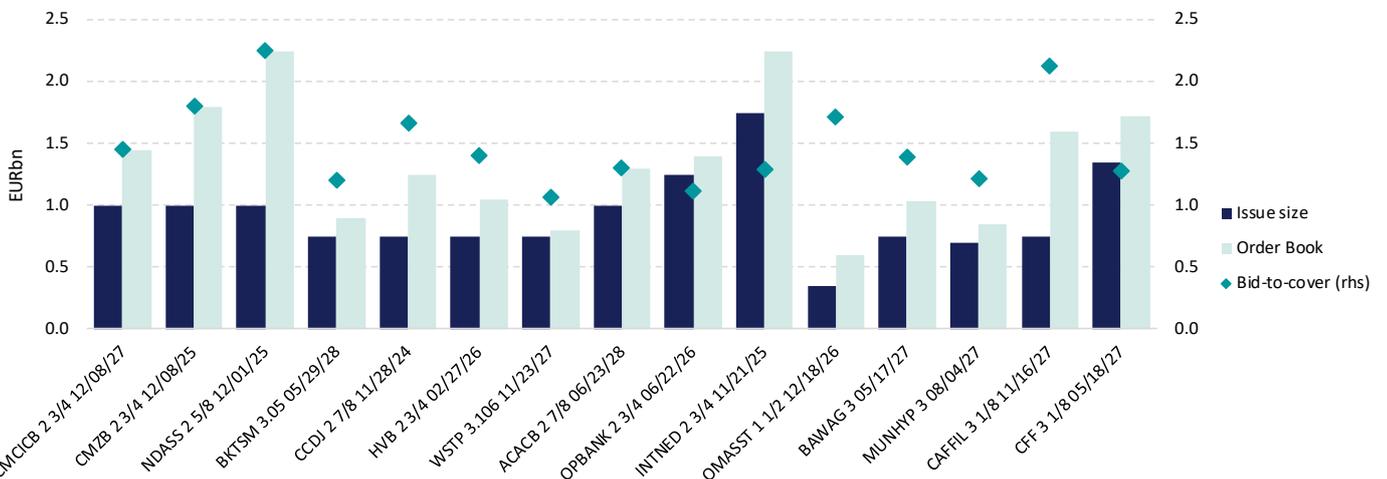
Covered bond performance (Total return)



Spread development (last 15 issues)

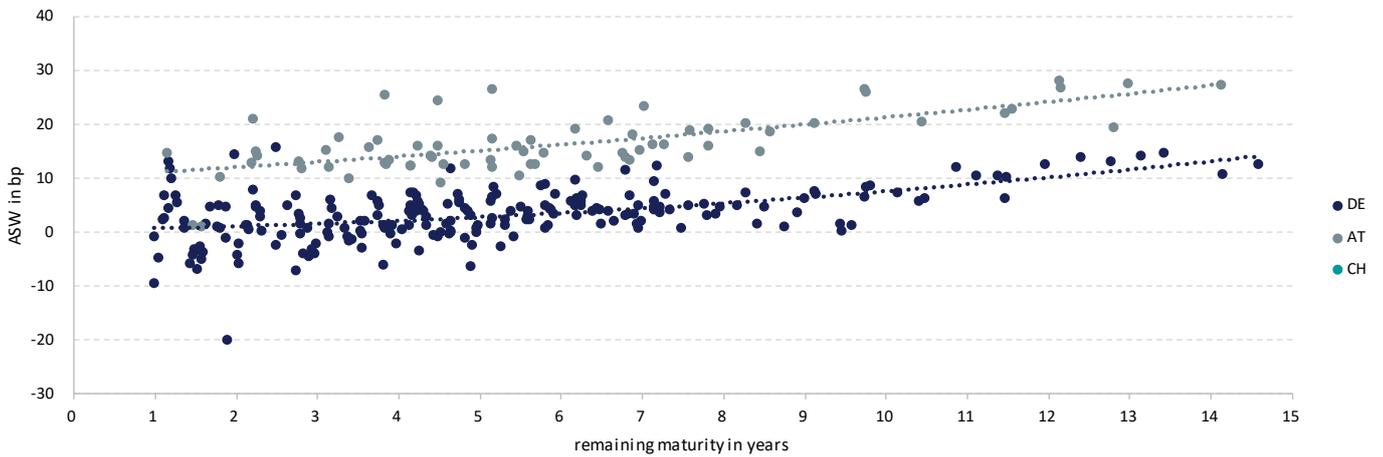


Order books (last 15 issues)

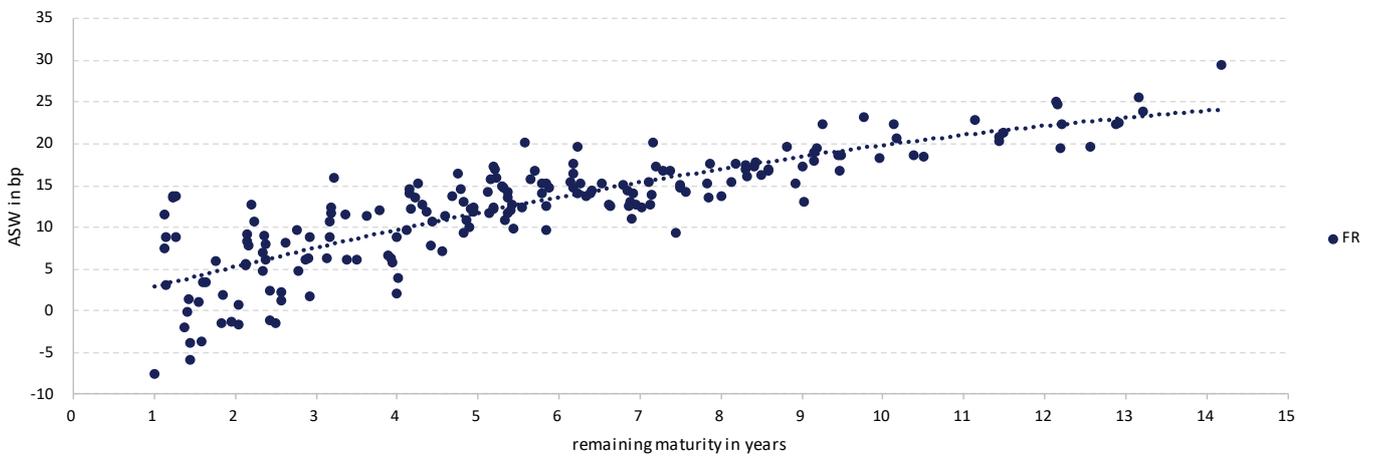


Spread overview¹

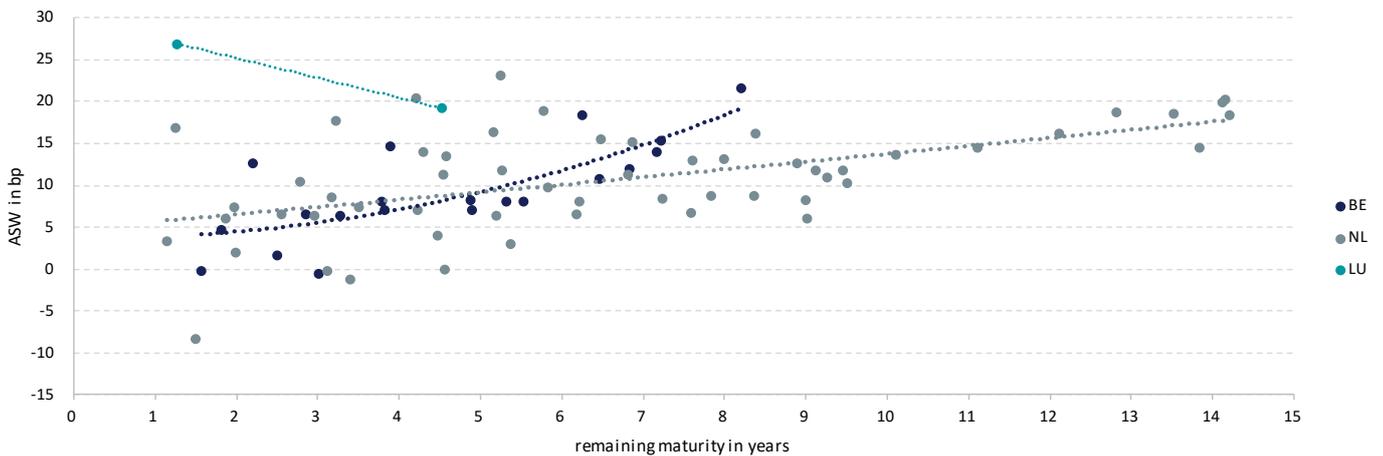
DACH 



France 

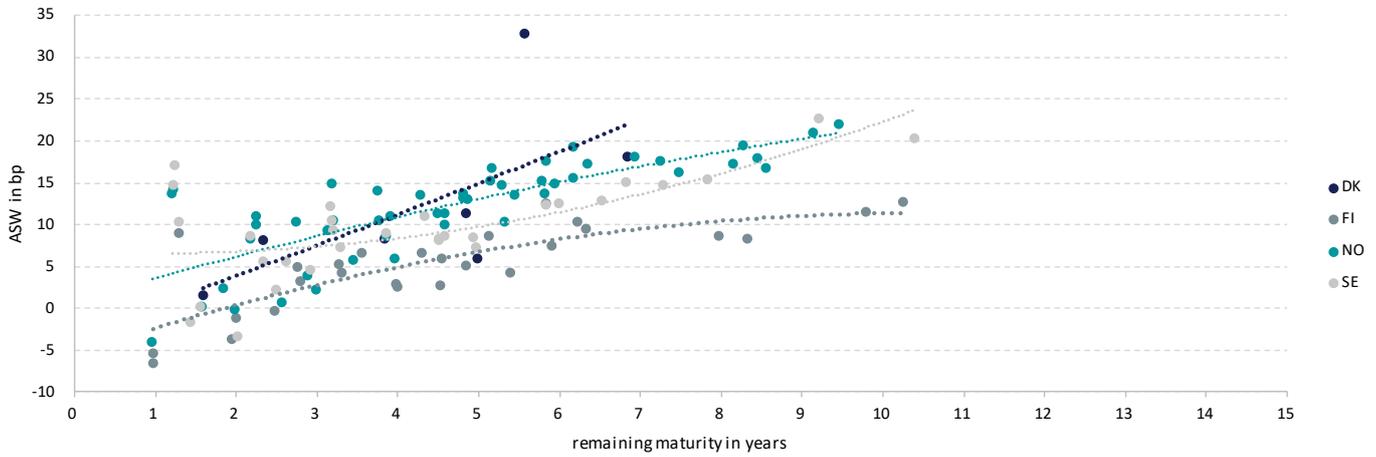


Benelux 

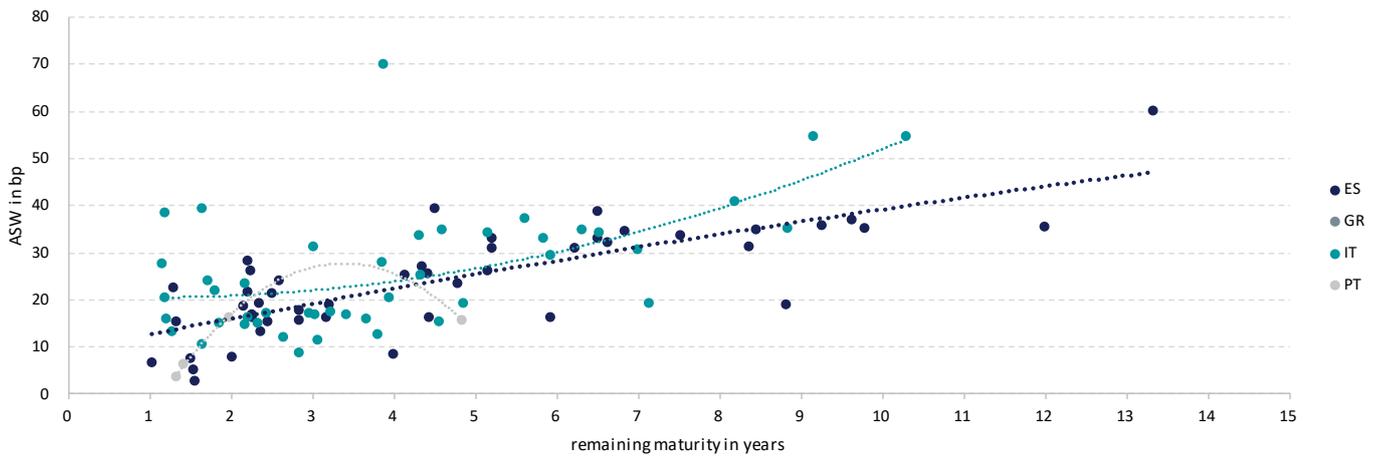


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research ¹Time to maturity 1 ≤ y ≤ 15

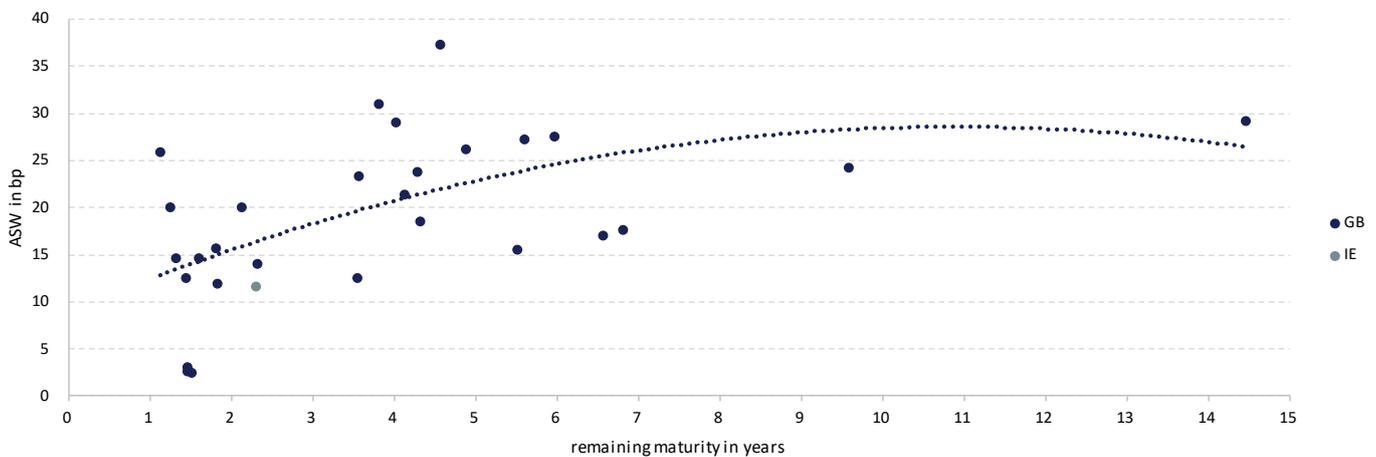
Nordics 🇩🇰 🇫🇮 🇳🇴 🇸🇪



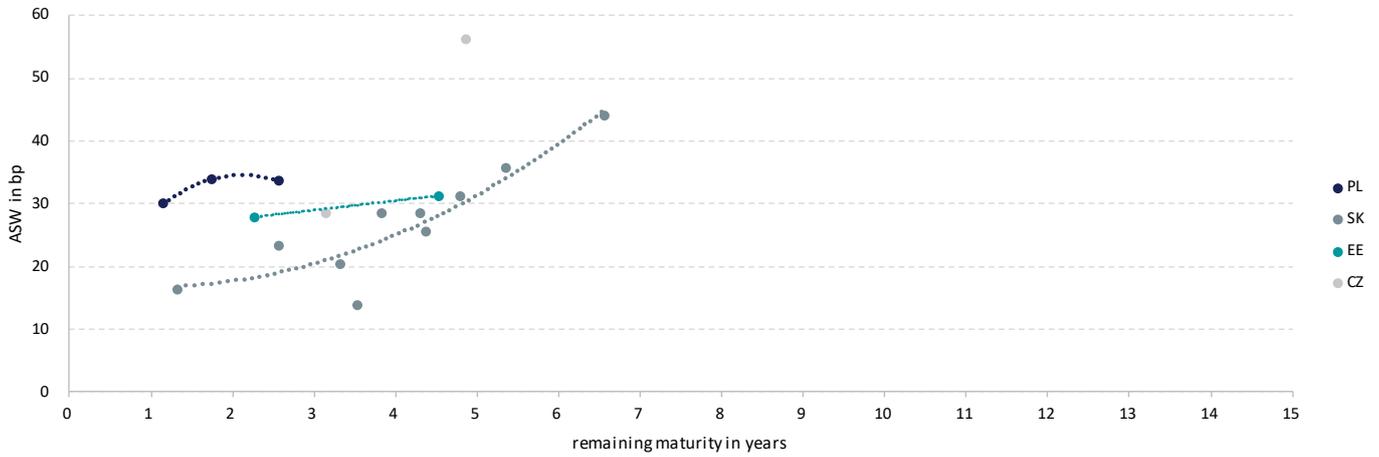
Southern Europe 🇪🇸 🇬🇷 🇮🇹 🇵🇹



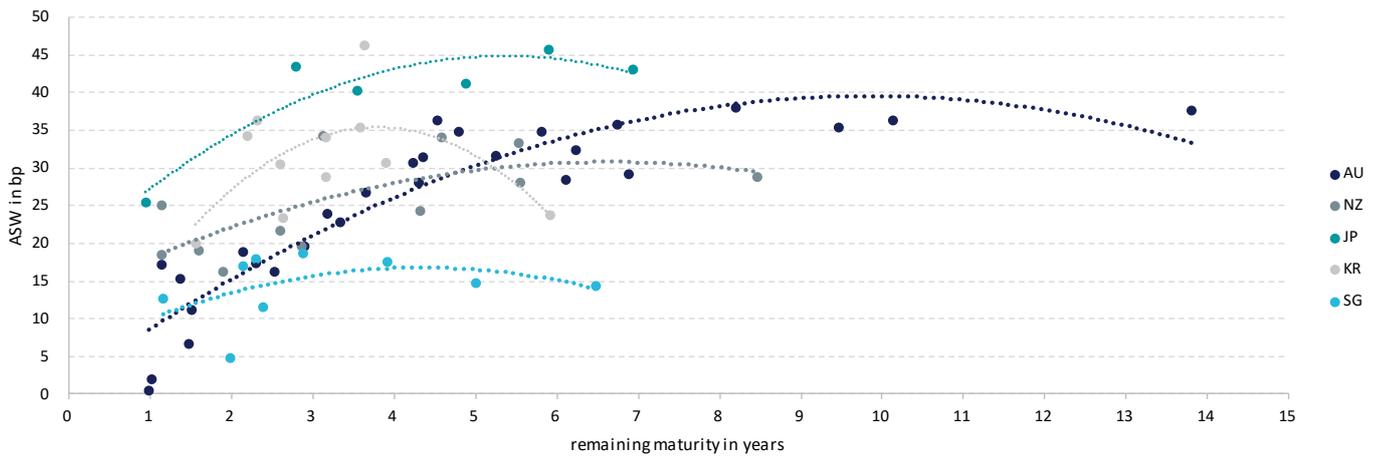
UK/IE 🇬🇧 🇮🇪



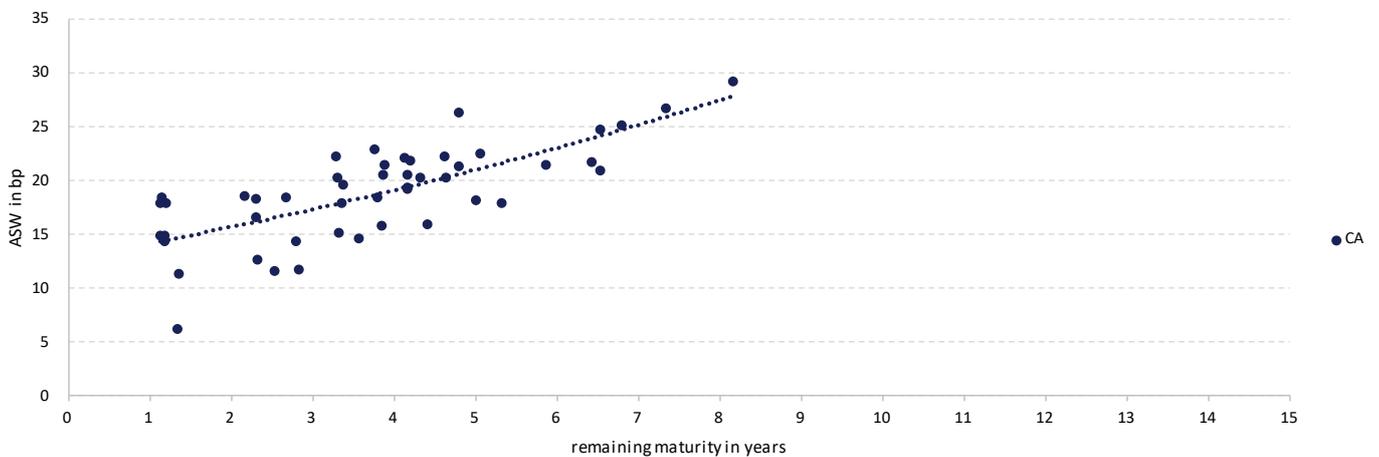
CEE 



APAC 



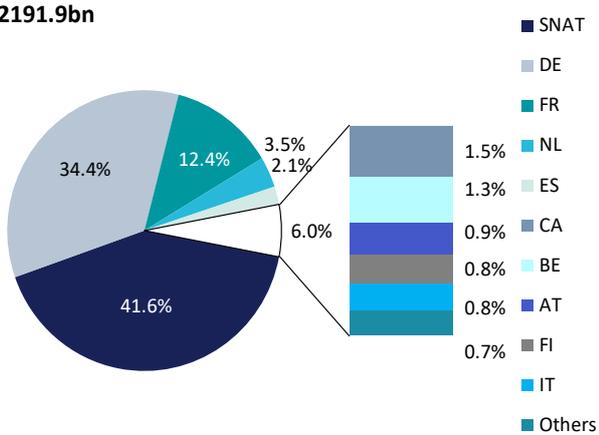
North America 



Charts & Figures SSA/Public Issuers

Outstanding volume (bmk)

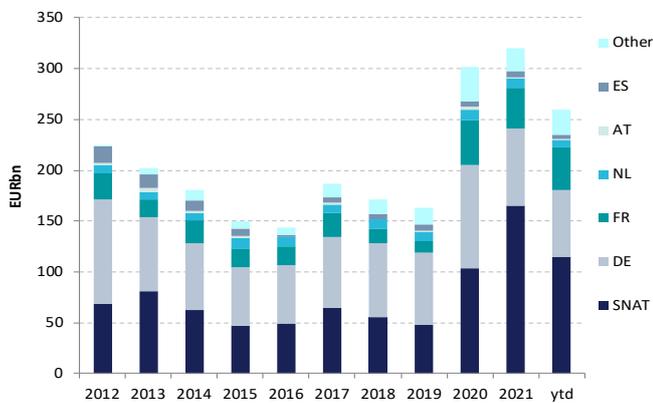
EUR 2191.9bn



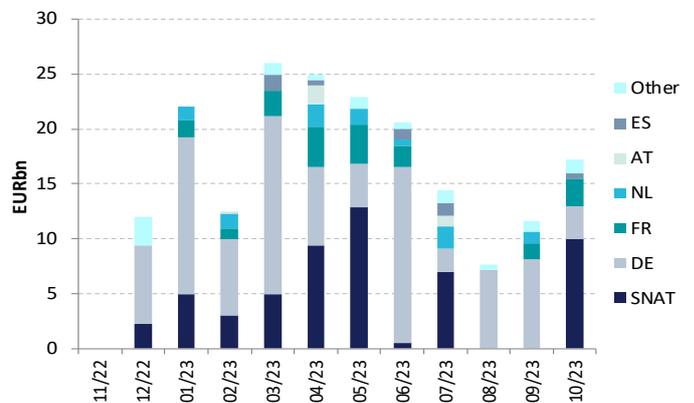
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	912.1	218	4,2	8,3
DE	754.2	560	1,3	6,3
FR	271.3	180	1,5	6,4
NL	77,2	69	1,1	6,6
ES	45,6	60	0,8	4,8
CA	32,6	23	1,4	4,7
BE	28,0	31	0,9	12,0
AT	19,8	23	0,9	4,6
FI	18,5	22	0,8	5,5
IT	16,8	20	0,8	5,0

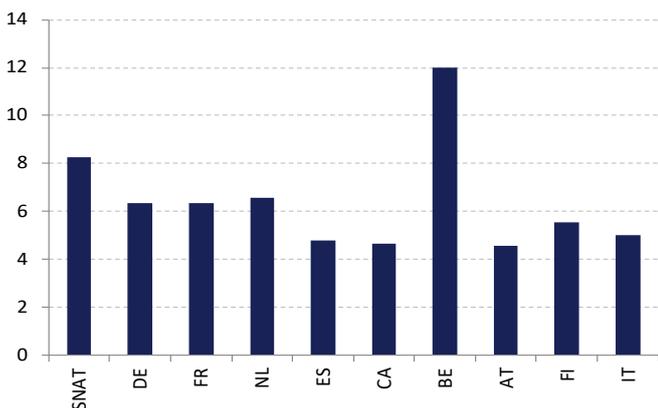
Issue volume by year (bmk)



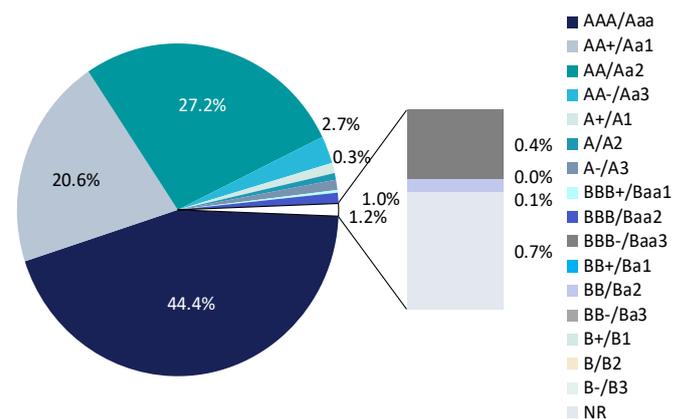
Maturities next 12 months (bmk)



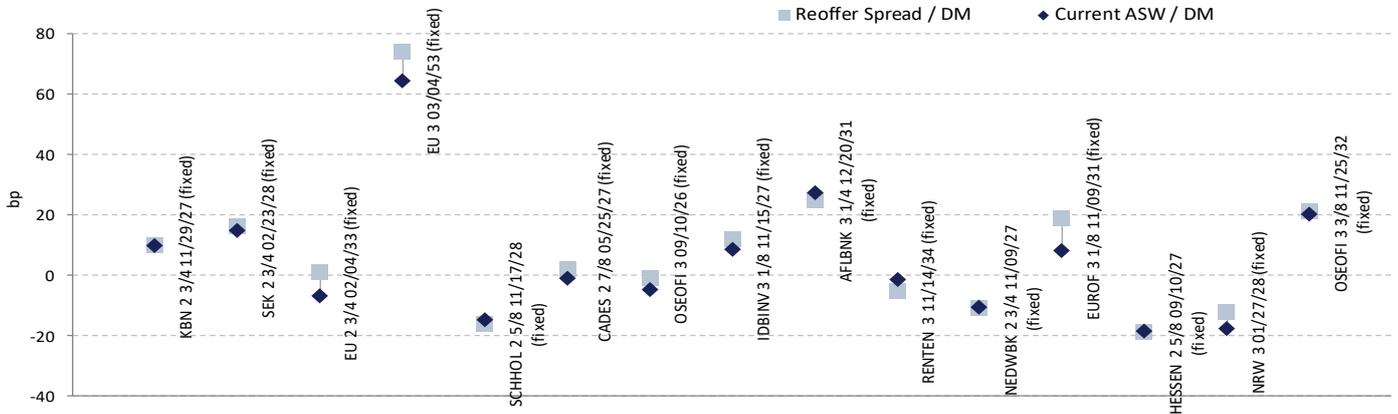
Avg. mod. duration by country (vol. weighted)



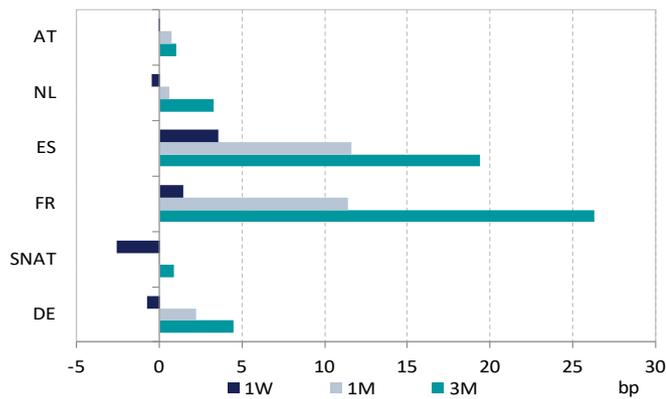
Rating distribution (vol. weighted)



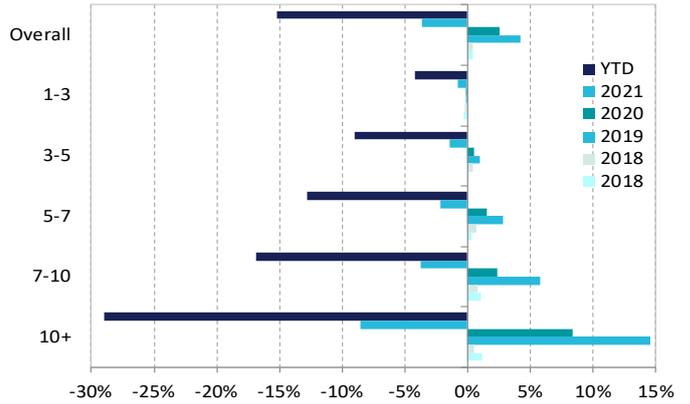
Spread development (last 15 issues)



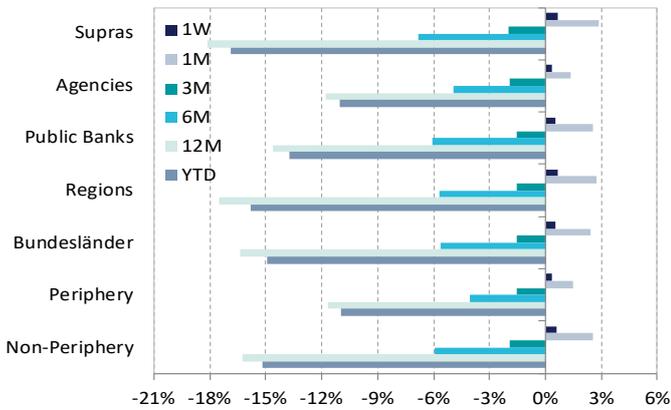
Spread development by country



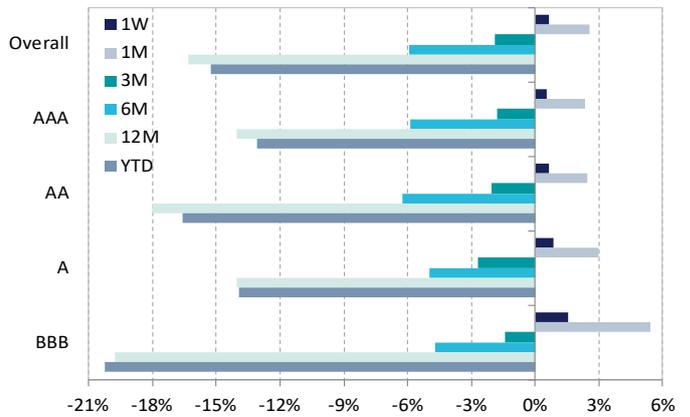
Performance (total return)



Performance (total return) by segments

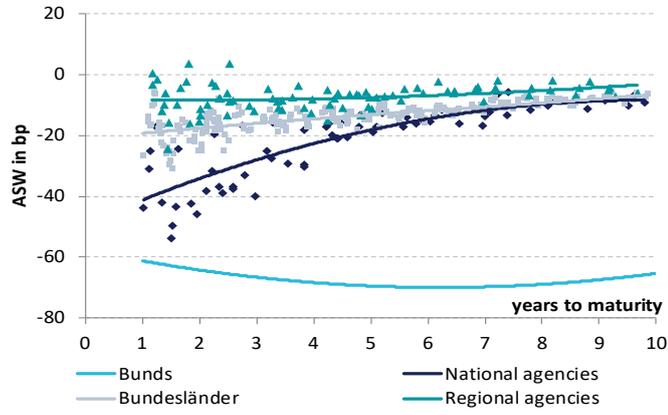


Performance (total return) by rating

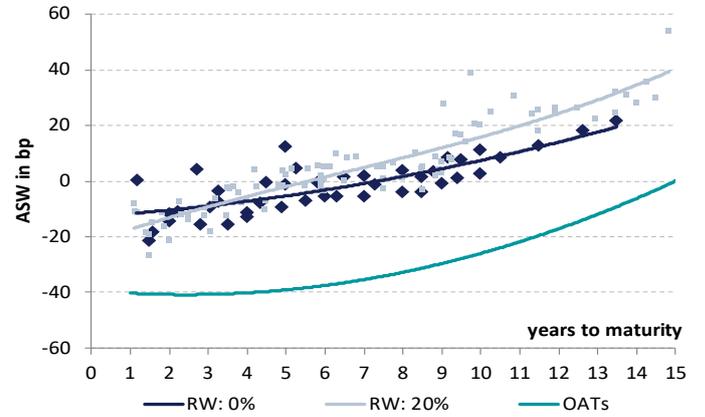


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

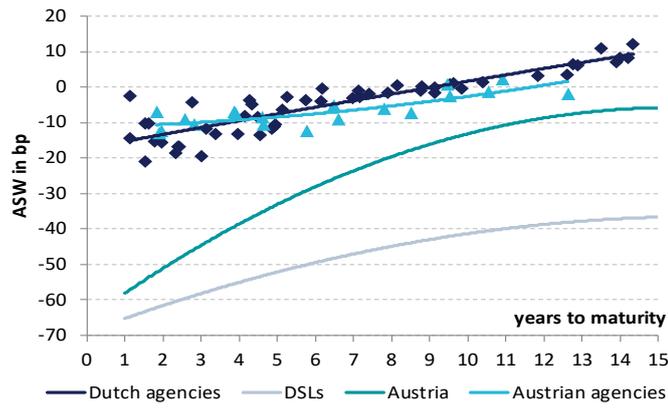
Germany (by segments)



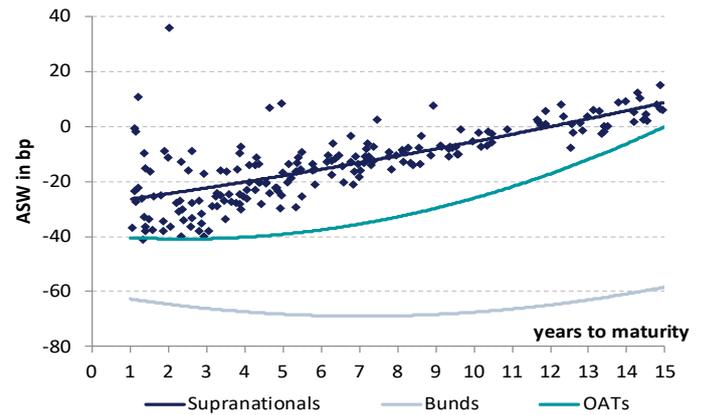
France (by risk weight)



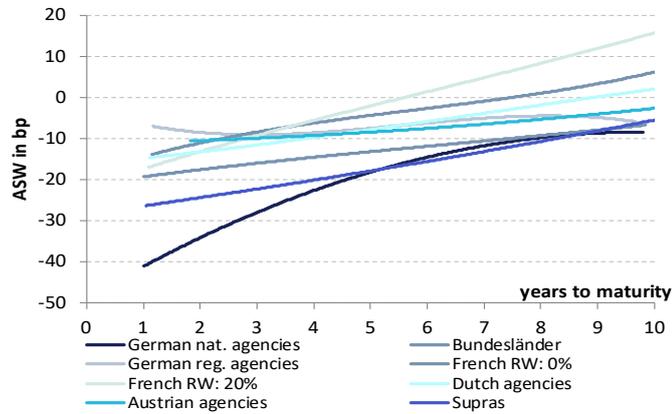
Netherlands & Austria



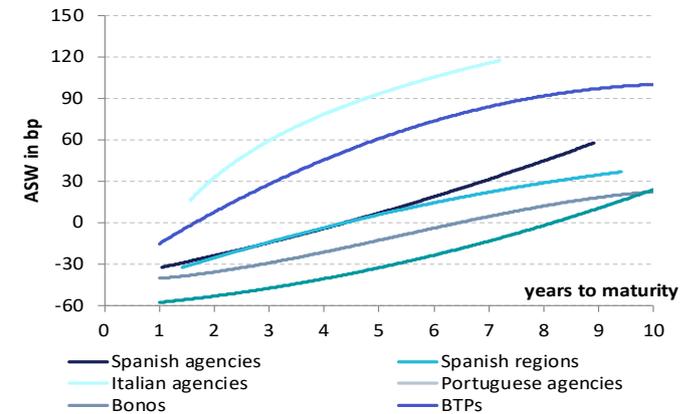
Supranationals



Core



Periphery



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

Appendix

Overview of latest Covered Bond & SSA View editions

Publication	Topics
36/2022 ♦ 23 November	<ul style="list-style-type: none"> ESG covered bonds - another record year Current LCR classifications for our SSA coverage
35/2022 ♦ 16 November	<ul style="list-style-type: none"> Covered bond jurisdictions in the spotlight: a look at Austria Development of the German property market EIB goes Blockchain... again!
34/2022 ♦ 09 November	<ul style="list-style-type: none"> Covered bond jurisdictions in the spotlight: a look at Norway Tenth edition of the NORD/LB Issuer Guide Covered Bonds SSA primary stats ytd before the final sprint
33/2022 ♦ 26 October	<ul style="list-style-type: none"> Repayment structures on the covered bond market: EU harmonisation project consigns hard bullets to the shadows The debt brake at Laender level
32/2022 ♦ 19 October	<ul style="list-style-type: none"> ECB preview: +75bp and the balance sheet question EBA Risk Dashboard paints a robust picture in Q2 2022 An overview of the German Laender
31/2022 ♦ 12 October	<ul style="list-style-type: none"> The covered bond rating approach of S&P Benchmark indices for German Laender
30/2022 ♦ 28 September	<ul style="list-style-type: none"> Focus on covered bond jurisdictions: Singapore in the spotlight German Laender: more ESG issues on the horizon?
29/2022 ♦ 21 September	<ul style="list-style-type: none"> ECBC publishes annual statistics for 2021 Update: Gemeinschaft deutscher Laender (Ticker: LANDER)
28/2022 ♦ 07 September	<ul style="list-style-type: none"> Primary market: A little more to come! ECB: PEPP visibly active as first line of defence
27/2022 ♦ 31 August	<ul style="list-style-type: none"> ECB rate hikes: minimum of +100bp still to come by year-end Australia: Macquarie returns to the EUR benchmark segment
26/2022 ♦ 24 August	<ul style="list-style-type: none"> Development of the German property market Transparency requirements §28 PfandBG Q2/2022
25/2022 ♦ 27 July	<ul style="list-style-type: none"> ECB likes abbreviations: After OMT and SMP, we now have TPI Covereds vs. Senior Unsecured Bonds
24/2022 ♦ 20 July	<ul style="list-style-type: none"> A brief spotlight on the EUR sub-benchmark segment Deutsche Hypo real estate climate: index falls again
23/2022 ♦ 13 July	<ul style="list-style-type: none"> ECB preview: might the ECB go slightly further? EBA Report on Asset Encumbrance: levels increasing
22/2022 ♦ 06 July	<ul style="list-style-type: none"> H1 review and outlook for H2 2022 Half time in the 2022 SSA year – taking stock
21/2022 ♦ 22 June	<ul style="list-style-type: none"> Focus on ESG covered bonds: BayernLB's "green rail" public sector Pfandbrief Stability Council convenes for 25th meeting

Appendix

Publication overview

Covered Bonds:

[Issuer Guide Covered Bonds 2022](#)

[Covered Bond Directive: Impact on risk weights and LCR levels](#)

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

[Transparency requirements §28 PfandBG](#) (quarterly update)

[Covered bonds as eligible collateral for central banks](#)

SSA/Public Issuers:

[Issuer Guide – German Laender 2021](#)

[Issuer Guide – German Agencies 2022](#)

[Issuer Guide – Dutch Agencies 2022](#)

[Beyond Bundeslaender: Greater Paris \(IDF/VDP\)](#)

[Spotlight on Belgian regions](#)

[Spotlight on Spanish regions](#)

Fixed Income Specials:

[ESG-Update 2022](#)

[ECB interest rate decision: delivered as expected?](#)

[ECB acts as the 'House of Hikes' - or: Winter is coming!](#)

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Appendix

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