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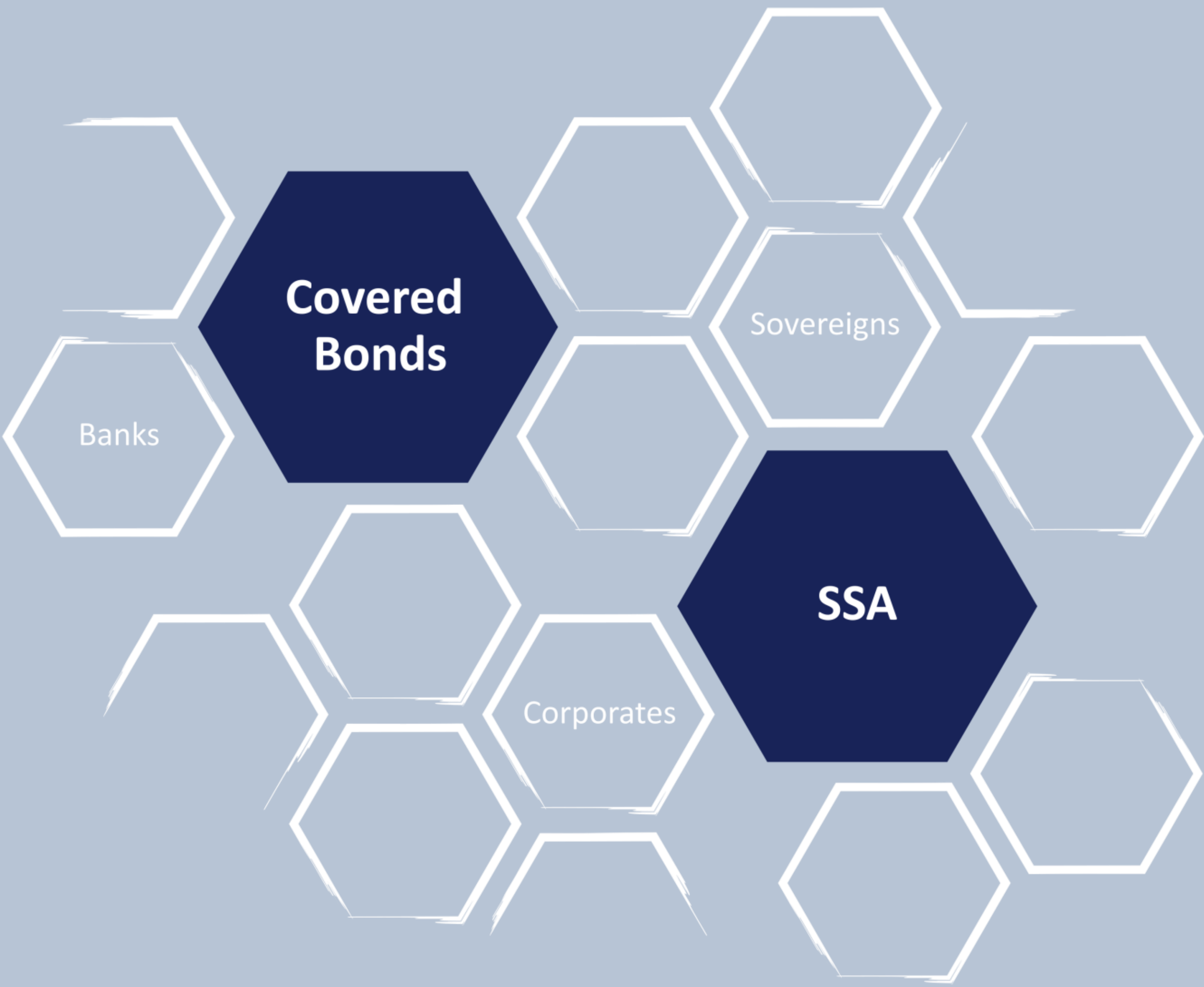

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

23 March 2022 ♦ 11/2022

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

Finanzgruppe

Agenda

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Market overview
Covered Bonds

Author: Dr Frederik Kunze

Primary market: extremely high issuance volume in Q1 2022

On the primary market, we welcomed the first benchmark deal from Sweden in 2022. The last deal from this jurisdiction was placed by Stadshypotek in September 2021. Before going to market on the Monday of this trading week, Skandinaviska Enskilda Banken (SEB) had issued its last EUR benchmark in 2019. SEB chose a maturity of five years for its new covered bond. With a reoffer spread of ms +5bp (guidance: ms +9bp area), the issuer finally placed a volume of EUR 1.5bn, which represents the largest SEB benchmark for more than six years. The new issue premium (+4bp) is, in our view, in keeping with the concessions seen over the past few trading days. Last Thursday, another issuer from Canada, namely Toronto Dominion (TD), approached investors, launching its first benchmark of the year in the process. With a volume of EUR 2.5bn, TD is continuing the series of exceptional deal volumes from Canada and is sticking to the coveted maturity of five years. The reoffer spread of ms +11bp (guidance: ms +14bp area) resulted in a calculated new issue premium of +5bp. In terms of geographical allocation, accounts from Germany & Austria (40%) dominated ahead of UK/Ireland (17%). By investor type, the largest allocation was to Banks (45%) ahead of Central Banks/OI (32%). Yesterday, on Tuesday, Credit Agricole (CA) Home Loan SFH from France finally placed its second EUR benchmark of 2022. With a volume of EUR 1.75bn (order book: EUR 2.6bn), the issue spread for the bond was ms +4bp (term: 5.4y; guidance: ms +8bp area; new issue premium: +3bp). With these three issues, the EUR benchmark volume amounts to EUR 67.1bn in the year to date. This value is way up on the end of March 2021 (EUR 21.8bn) and even exceeds the respective levels recorded at the end of March in the period running from 2014 to 2020.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
CA Home Loan SFH	FR	22.03.	FR0014009ED1	5.4y	1.75bn	ms +4bp	AAA/Aaa/AAA	-
SEB	SE	21.03.	XS2462455689	5.3y	1.50bn	ms +5bp	- /Aaa/ -	-
TD	CA	17.03.	XS2461741212	5.0y	2.50bn	ms +11bp	- /Aaa/ -	-

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

NORD/LB forecast: renewed adjustment of the expected issuance volume for 2022

With the EUR benchmark deal placed by Royal Bank of Canada (RY; EUR 2bn) on Tuesday last week, our issuance forecast for the most surprising jurisdiction, Canada, was rendered invalid. The forecast, which had only recently been revised upwards (EUR 14bn; cf. NORD/LB Covered Bond & SSA View 26 January), was already below the current annual volume of EUR 14.25bn. After TD issued another extremely large benchmark, our forecast will have to be revised again. We now anticipate a total of EUR 23bn from Canada, which takes our supply forecast for the entire benchmark segment up to EUR 133bn, resulting in a negative net supply of just EUR 5bn. In purely market terms, this further reduces the support potential for ASW spreads at the level of the overall market. In particular, in the wake of the announced withdrawal of the Eurosystem, we continue to expect (initially still modest) spread widening across all maturities and jurisdictions.

Overview: Canadian EUR issuers

	Cover pool volume (in CADm)	Total out-standing (in CADm)	OC	OC[1] CMHC Guide	OSFI Limit[2]	EUR BMK 2022ytd		EUR BMK 2021		EUR BMK 2020		EUR BMK 2019	
						EURbn	*Deals*	*EURbn*	*Deals*	*EURbn*	*Deals*	*EURbn*	*Deals*
BMO	38,364	27,704	38.5%	7.0%	2.9%	2.75	1	1.25	1	1.25	1	1.25	1
BNS	68,154	44,984	51.5%	6.6%	3.9%	3.25	2	3.25	2	2.75	2	1.25	2
CCDJ	12,163	10,365	17.3%	4.4%	3.2%[3]	0.75	1	0.50	1	0.50	1	1.25	2
CIBC	47,453	30,786	54.1%	7.4%	3.7%	2.50	1	2.00	2	0.75	1	1.00	1
NACN	20,385	11,559	76.4%	9.1%	2.8%	1.00	1	1.25	2	-	-	0.75	1
RY	73,998	49,952	48.1%	7.7%	2.4%	4.00	2	2.50	2	2.50	2	3.00	2
TD	57,171	22,833	150.4%	5.3%	1.4%	2.50	1	-	-	1.00	1	3.00	2
HSBC	9,234	3,856	139.5%	10.4%	3.5%	-	-	0.75	1	-	-	-	-
					∑	**16.75**	**8**	**11.50**	**11**	**8.75**	**8**	**11.50**	**11**

Source: Issuers, market data, NORD/LB Markets Strategy & Floor Research;[1] OC as basis for OSFI Limit; [2] OSFI Limit = 5.5%; [3] AMF Limit 5.5%;

EUR sub-benchmark segment: Natixis Pfandbriefbank places EUR 250m

Natixis Pfandbriefbank was the first issuer to make an appearance on the primary market for EUR sub-benchmarks in the current month of March. The EUR 250m mortgage Pfandbrief was placed at ms +2bp (guidance: ms +5bp area) and accounted for an order volume of EUR 390m (23 orders). The maturity of three years is worth noting, because it continues the trend for shorter-dated bonds in the EUR sub-benchmark segment. The allocation of the bond volume was concentrated on accounts in Germany (share of 80%). By investor group, Central Banks/OI (49%) were ahead of Banks (29%) as well as Asset Managers (16%) and Insurance Groups (6%). Including this latest deal, the total volume placed in this sub-market comes to EUR 1.55bn (six bonds) so far in 2022. In 2021, a total of EUR 4.15bn was issued in the form of EUR sub-benchmarks, meaning that there is evidently still some catch-up potential here from a purely mathematical point of view. We have previously expressed our view at suitable junctures that the EUR sub-benchmark segment is more of a niche market but provides certain advantages for investors and issuers. Interesting spread concessions can arise for investors, while for some issuers in this sub-market, it is likely that they have worked out that they can go to market more regularly with smaller issue sizes.

Rating approaches for covered bonds: DBRS methodology

Starting last year, we looked at rating approaches for covered bonds as part of our weekly publication. For example, we have already published schematic summaries for Fitch's methodologies (cf. Covered Bond & SSA View from 15 September), Scope (cf. Covered Bond & SSA View from 27 October) as well as Moody's (cf. Covered Bond & SSA View from 08 December) to provide investors with a brief overview of the covered bond rating landscape. We now continue the series with a description of DBRS's approach and refer to the focus article on covered bonds in today's Covered Bond & SSA View.

Market overview SSA/Public Issuers

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

NRW.BANK achieves second highest promotional result since its foundation

In 2021, NRW.BANK extended promotional funds in the amount of EUR 12bn. The bank's record year was 2020. It therefore recorded its second highest promotional result last year, despite a year-on-year decline of 29% (2020: EUR 17bn). This decrease was essentially due to the reduced demand for COVID-19 aid. While the promotional bank of North Rhine-Westphalia (NRW) had extended COVID-19 aid in the amount of EUR 3.9bn in 2020, it was "only" EUR 905.4m in 2021. To facilitate the necessary investments in the future task of transforming the economy and society, NRW.BANK had already introduced negative interest rates in its programme-based, municipal direct business in early 2021. This was followed in June 2021 by the introduction of negative lending rates under the house bank principle, which means that customers can obtain NRW.BANK promotional loans at interest rates as low as 0.01%. "This has allowed us to set stronger promotional incentives in the transformation themes in spite of the low interest rates, thus triggering investments in digitalisation and sustainability," said Eckhard Forst, Chairman of the Managing Board. We, of course, are primarily interested in the capital market side: NRW.BANK issued two green bonds and four social bonds in the promotional year 2021. The promotional bank started issuing the latter in 2020 and has since issued five social bonds with a total volume of just under EUR 3bn. Social bonds help to create or preserve jobs, to facilitate home ownership for low and medium-income families and to modernise schools in NRW. Green bonds have been issued by NRW.BANK since 2013, when the bank was the first regional promotional bank in Europe to issue such bonds, as it proudly highlighted in its press release. To date, the bank has issued 12 green bonds with a total volume of close to EUR 6bn. They are primarily used to fund climate protection and climate impact adaptation projects. Carbon savings per bond amount to between 1 and 4 million tonnes. We would like to highlight a few key figures: as at 31 December 2021, total assets amounted to EUR 153.1bn (2020: EUR 155.8bn) and the operating result stood at EUR 260.0m (2020: EUR 307.7m). Equity capital remained unchanged at EUR 18bn and the CET1 ratio amounted to 44.4% (2020: 43.5%). Demand for the "NRW.BANK.Digitalisierung und Innovation" programme was especially pleasing. The volume of new commitments under this programme increased by 18% to EUR 152.2m as a result of stronger promotional impulses. The equity investment business reached a new record level, with existing commitments rising to over EUR 574m (new commitments: EUR 91m). At EUR 3.6bn, the volume of new commitments in the promotional field Housing remained at the good level of the previous year. Demand for the programmes relating to the promotional theme Energy Transition/Environmental Protection was particularly strong, with NRW.BANK granting EUR 2bn, so 12% more than in the previous year. Demand was also strong for the "NRW.BANK.Energieinfrastruktur" programme with a volume of new commitments of EUR 672.4m (+36%). In the wake of the severe floods in NRW, NRW.BANK extended promotional loans in the amount of EUR 164m across all promotional fields for clean-up and reconstruction work. Individuals, businesses and municipalities affected by the floods received highly subsidised loans. Businesses additionally benefited from a 20% redemption discount.

Special fund for the German army (Bundeswehr)

The war on Ukraine is a challenge for the European security architecture. The federal government therefore wants to invest significantly more in the German army (Bundeswehr) and has announced the establishment of a special fund for the Bundeswehr. The draft to amend Article 87a of the Basic Law for the Federal Republic of Germany creates the constitutional basis for establishing this special fund. In order to strengthen alliance and defence capabilities, the federal government can set up a special fund with its own credit authorisation for a one-off amount of up to EUR 100bn. This credit authorisation is specifically exempt from the credit limits of the debt rule of the Basic Law. With this amendment to the Basic Law, the purpose of the special fund to strengthen the alliance and defence capabilities is secured in constitutional law. The special fund is established by simple federal law and managed separately from the federal budget. The projects for this purpose are conclusively named in the business plan and are to be financed entirely from the special fund. The business plan must be adopted annually by the legislator, from financial year 2023 with the Budget Law. The special fund supplements the defence budget of the federal budget, which will rise to a record value of more than EUR 50bn after the second government draft for the 2022 federal budget this year. This high level will be maintained in the key figures of the financial plan until 2026 in order to meet NATO's target for defence spending of 2% of GDP in conjunction with the funds available under the special fund. The loans taken out for the special fund are to be repaid, although the specific repayment details are to be regulated in a later law.

Return to debt brake planned from 2023

When compared with the draft law introduced by the grand coalition in the preceding election period, which was in the end not discussed on account of the parliamentary elections, expenditure has been increased by EUR 14.6bn. A total of EUR 50.8bn is now attributed to investment spending, while the old government's draft budget provided for EUR 51.8bn. Tax revenues are projected to total EUR 332.5bn, while the previous government had forecast a total of EUR 315.2bn. Net borrowing, meaning new debt, is identical in both drafts, at EUR 99.7bn. Federal Finance Minister Christian Lindner (FDP) advocated for a return to the debt brake from 2023 in the Bundestag. "We have to go back to the principle that prosperity must first be generated before it can then be distributed," he said in his address at the beginning of the four-day budget debate in the Bundestag. At the same time, he underlined the importance that relief measures "act quickly", are "accurate" and "time-limited" and are "coordinated in the EU". The aim is to enable self-sustaining economic growth and at the same time lead Germany out of debt. Parliament will refer the draft law, which the Federal Cabinet adopted on 16 March, with all appendixes, the individual plans, to the Budget Committee for further discussion on Friday, 25 March. The adoption of the budget law by the Bundestag is scheduled for Friday, 3 June. In times of crisis, the state must react, said Lindner. However, normality must return after the crisis. "This return to normality is the budgetary goal of this federal government." Despite "modified framework situations and the new modern focus of the coalition", a first contribution to the consolidation of state is now needed. The financial planning aims for compliance with the debt brake from 2023 and in the following years until 2026. "We all hope and are counting on the fact that from next year, crisis policy will no longer be necessary." For the current year 2022, the crisis-related burdens on the federal budget are not yet foreseeable, said Lindner – a stance which we would agree with.

International Investment Bank (IIB) repays HUF bond

According to the Investor Relations department of the International Investment Bank (IIB), the recently maturing bond with a volume of HUF 24.7bn (equivalent to EUR 66m) has been repaid in full. We interpret this as a positive sign, as the rating agencies Moody's and Fitch recently rated IIB below investment grade. In our opinion, a lot could also happen with regard to the ownership structure: as already mentioned in a previous issue, the Czech Republic, Romania, Slovakia and Bulgaria intend to sell off their shares in IIB. Should the IIB wish to work towards a compromise in the ownership structure, we believe that this could only be achieved by further reducing Russia's influence. It would be conceivable, for example, for the Russian share to be reduced to 15-25% with a simultaneous increase in the remaining shares. Alternatively, Hungary's share could be significantly increased – after all, the IIB is headquartered in Budapest.

Further sanctions for Russia's Vnesheconombank (VEB)

Vnesheconombank (VEB; ticker: VEBBNK) is a state-owned development bank that was founded in 1922 and transformed into a state development bank under Russian law in 2007, following the example of KfW. VEB's focus is on economic and export promotion, which supports the financial system and non-financial sectors. There is no explicit guarantee, but in the event of insolvency, a high probability of support from the Russian state can be assumed. VEB last appeared in our Issuer Guide Supranationals & Agencies 2016. Since then, it has no longer been included in our regular coverage and current geopolitical circumstances are not the only reason as to why re-inclusion has been ruled out. Another factor is the low relevance of the EUR supply for outstanding bonds or bonds to be expected in the future. Nevertheless, in the context of this weekly publication, we would like to draw due attention to the renewed sanctions that apply to VEB bonds. After the annexation of Crimea in 2014, the European Council already adopted far-reaching sanctions, which explicitly apply to VEB in the form of Council Regulation (EU) 833/2014 through Article 5a. The wording of Article 5 states: "It shall be prohibited to directly or indirectly purchase, sell, provide brokering or assistance in the issuance of, or otherwise deal with transferable securities and money-market instruments with a maturity exceeding 90 days, issued after 1 August 2014". Through Council Regulation (EU) 2022/345, the sanctions were ramped up further through Article 5h in the wake of Putin's war on Ukraine: "It shall be prohibited as of 12 March 2022 to provide specialised financial messaging services, which are used to exchange financial data […]". This has the consequence that seven Russian banks in which the Russian state holds a stake of more than 50% are excluded from the SWIFT payment system – including VEB. As a reminder: VEB currently has one EUR benchmark bond outstanding, which was issued on 21 February 2013 and matures in 2023. In view of the SWIFT exclusion, it will be interesting to see how repayment of the bond pans out. Of great importance in this context are Russian government bonds, which are denominated in USD and EUR. Putin's "list of enemy states" makes this matter all the more pertinent. Countries on the list (e.g. the EU and the USA) may only be paid in the Russian currency. Were the Russian state therefore to make coupon payments in roubles instead of USD, this would amount to a technical default, according to the rating agencies. However, according to current information, the due coupon payments have been made in USD.

SURE: approved financial support in 19 member states (EUR 94.4bn)

Belgium	EUR 8,197m	**Latvia**	EUR 305m
Bulgaria	EUR 511m	**Lithuania**	EUR 957m
Croatia	EUR 1,020m	**Malta**	EUR 420m
Cyprus	EUR 603m	**Poland**	EUR 11,236m
Czech Republic	EUR 2,000m	**Portugal**	EUR 5,934m
Estonia	EUR 230m	**Romania**	EUR 4,099m
Greece	EUR 5,265m	**Slovakia**	EUR 630m
Hungary	EUR 651m	**Slovenia**	EUR 1,113m
Ireland	EUR 2,473m	**Spain**	EUR 21,324m
Italy	EUR 27,438m		

Source: European Commission, NORD/LB Markets Strategy & Floor Research

Primary market

The focus of this trading week was clearly on the already familiar mega-issuers, namely the European Commission in the form of the EU – which is also this issuer's ticker. Last week we already informed you that the EU had sent an RfP to selected banks due to the funding requirements for the NGEU as well as the SURE programme, which has not been utilised since May 2021. On Monday, first details emerged in the form of the mandate: for the SURE programme, it will be a 15-year bond with a volume of EUR 2.17bn (WNG), while a volume of EUR 10bn has been chosen for a bond to be issued under the NGEU programme with a term of just over 10 years. As you can see from the table above, EUR 94.4bn in commitments have been made so far under the SURE programme. To date, EUR 89.6bn of this has been paid – not taking into account the "new" EUR 2.17bn. Around EUR 3.5bn is therefore to be expected in the form of social bonds over the further course of the year in order to make full use of the SURE programme. With the help of the SURE programme, EU member states will be able to refinance pandemic-related expenses (e.g. in healthcare, short-time working allowance) at favourable terms on the capital market. Pricing took place yesterday, Tuesday, with ms -15bp (guidance: ms -13bp area) recorded for the NGEU bond and ms -8bp (guidance: ms -6bp area) for the social bond of the SURE programme. It should come as a surprise to nobody to learn that the order books were heavily oversubscribed. The bid-to-cover ratio for the NGEU bond was 5.9x and as high as 16.1x for the SURE bond. We were also able to find a tap and a mandate: the European Investment Bank (EIB) carried out the tap of EUR 250m for its Climate Awareness Bond EIB 0% 11/15/27 to ms -33bp. The guidance was initially in the region of ms -32bp area, but in view of the order book totalling EUR 1.25bn, narrowing of a single basis point was possible. The mandate came from the Swedish municipal financier Kommuninvest, which intends to issue a EUR 500m (WNG) seven-year green bond. We expect the books to open for this transaction as soon as today. We would also like to draw attention to the fact that a new auction is scheduled for next Monday in accordance with the EU's funding plan.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
EU	SNAT	21.03.	EU000A3K4DE6	15.2y	2.17bn	ms -8bp	AAA / Aaa / AA	X
EU	SNAT	21.03.	EU000A3K4DD8	10.3y	10.00bn	ms -15bp	AAA / Aaa / AA	-

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

NORD/LB

Cross Asset
ESG update 2022 in the spotlight

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

Key findings of our ESG update 2022

In the updated version of our NORD/LB Fixed Income Special – ESG update 2022 we naturally address current developments on the market for ESG bonds this year in addition to ongoing regulatory activities. Starting with a look at the ESG primary market last year in the asset classes Green, Social, Sustainable and Sustainability-Linked Bonds, we then focus on the EU taxonomy and the legislative proposal for the EU Green Bond Standard (EUGBS). We review their evolution so far, present the status quo and highlight the potential implications for the European ESG bond market. The new editions of the ICMA Bond Principles, as prominent representatives of the private initiatives to harmonise sustainable bond standards, play a fitting part in the study in view of their market relevance. Another important factor is the rating agencies, to whom we also devote a separate chapter. We conclude this major study with an outlook: what remains when the flood of regulation subsides? In today's teaser, we would like to whet your appetite for more and briefly summarise the five most important points:

I. Due to the strong growth in demand for assets from all ESG sub-markets and the increasingly regulatory-driven primary market activity, we expect more granularity in the market shares of the individual ESG bond classes again in 2022 in addition to further record-breaking new issuances.

II. The further development of the EU taxonomy is attracting a great deal of attention on the markets and generating mixed feelings, although it is facing an initial stocktake and at the same time an acid test – also given the reporting obligations that have already begun.

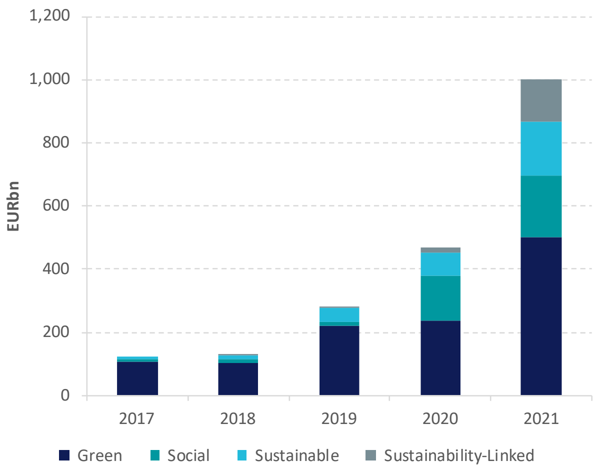
III. Aside from ongoing regulatory activities, private initiatives in particular have been able to establish themselves in the past with their standards for sustainable bonds (most notably the ICMA Green Bond Principles), which are also being used to develop the recently launched EU social taxonomy. As such, they are continuing to make a fundamental contribution to the growth of the market for ESG bonds.

IV. The EU Green Bond Standard (EUGBS) is based on the EU taxonomy and was fleshed out last year by the European Commission in a draft law. However, since then, in addition to the general positive response to its core points by industry associations and other stakeholders, parts of it have also been strongly criticised.

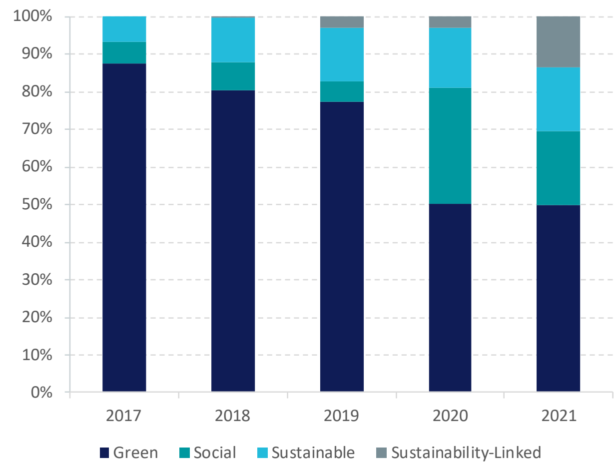
V. Rating agencies expect high volumes of new ESG issues in 2022, but see structural challenges in particular on the horizon for the market (e.g. cover pool eligibility, divergence of national taxonomy approaches outside European borders).

Annual ESG new issuance volume exceed the EUR 1tn threshold for the first time in 2021
The global market for sustainable bonds continued to grow significantly last year. After more than EUR 2tn in cumulative new issuance volume since 2008 across all ESG asset classes, half of the new bonds brought to market during this period were issued in 2021 alone. Green bonds were once again the largest sub-segment with a volume of over EUR 500bn, followed by social bonds (EUR 197bn), sustainable bonds (EUR 168bn) and sustainability-linked bonds (EUR 136bn). The latter also showed the strongest relative growth (tenfold), rising from EUR 14bn in 2020 to EUR 136bn by the end of 2021. Overall, they still have the smallest market share, but in general the market for ESG bonds has seen a significant increase in granularity over the last three years.

ESG bonds: global new issues (EURbn)



ESG bonds: relative market shares of new issues

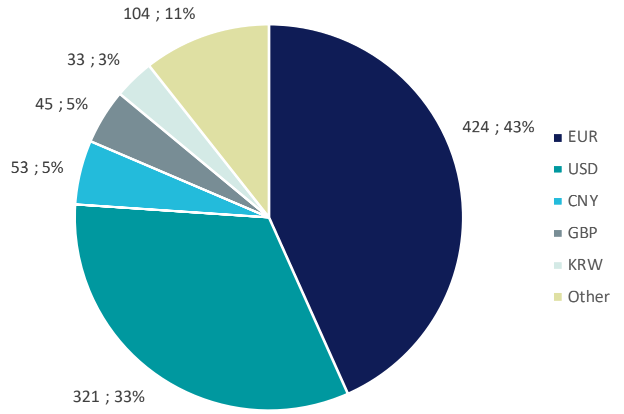


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

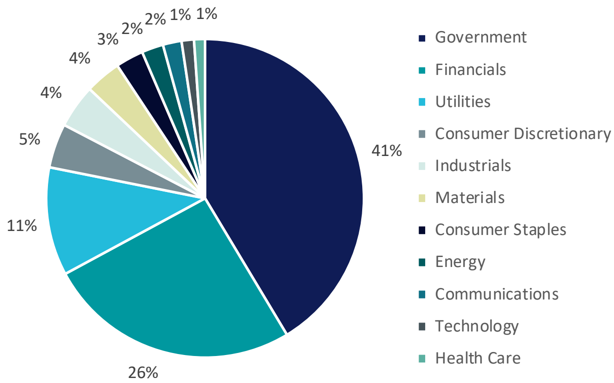
Public issuers and banks account for the largest new issuance volume globally
Around 41% of the currently outstanding green, social, sustainable and sustainability-linked bonds are attributable to the "Government" segment and 27% to the "Financials" segment. Compared with the previous year, there was a substantial increase of +13% in Government and a decrease of -11% in Financials. A glance at the industrial sectors shows that utilities play an important role in the universe of sustainable bonds. In 2021, utilities accounted for an outstanding volume of EUR 108bn (previous year: EUR 138bn), ranking third with a share of 11%.

EUR and USD are the most important currencies for sustainable bonds
Almost half of the outstanding volume in the green, social, sustainable and sustainability-linked bond segments worldwide is denominated in EUR (43%), with the USD (33%) accounting for roughly one third. In Asia, on the other hand, CNY and KRW dominate, although they only account for 8% on a global basis. In Europe, aside from the euro, the most common currency of choice is GBP (5%). We assume that the regulatory pace of the European Commission in the area of sustainability will continue to ensure the supremacy of the EUR. The USA also aims to halve its greenhouse gas emissions by 2030 compared with 2005 and China has announced its intention to become climate neutral by 2060. However, this announcement has so far not been backed up by a catalogue of concrete measures.

ESG bonds: globally outstanding volume by currency (year-end 2021, EURbn)



ESG bonds: globally outstanding volume by sector (year-end 2021)



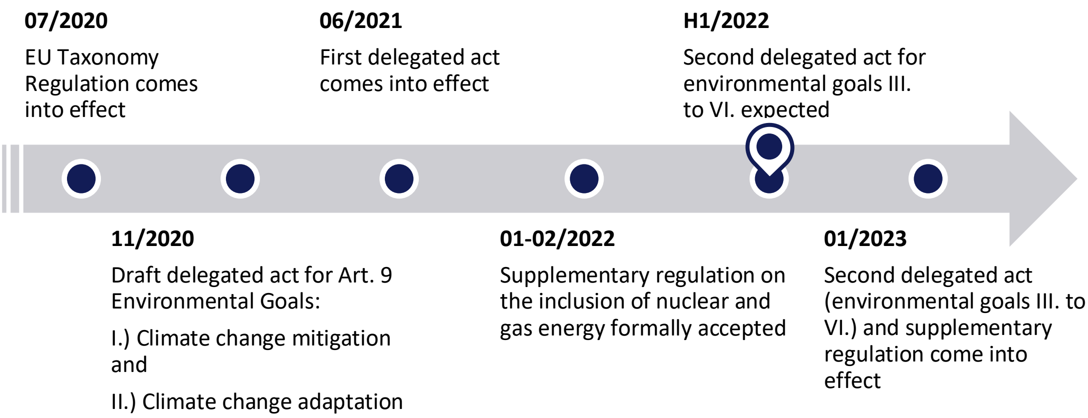
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Global outlook 2022: Market expects USD 1tn in new issues of green bonds

A new issuance volume of USD 1tn in the green bonds segment by the end of 2022 – this was the result of a market survey carried out by the Climate Bonds Initiative (CBI). As such, the volume of green bonds newly brought to market would almost double again within one year and correspond to the total volume of all ESG new issues in 2021. In light of the advancing climate crisis, an annual new issuance target of USD 5tn from 2025 can be expected for the global green bond market.

Overview of the EU taxonomy

Within the framework of the European Green Deal and the Paris Agreement on climate protection goals, the European Commission introduced a voluntary uniform market standard for the financing of sustainable economic activities in the form of the EU taxonomy. The latter is a central component of the Action Plan published by the European Commission in March 2018 for financing sustainable growth. Essentially the EU taxonomy is a classification system designed to channel capital flows into environmentally sustainable activities. The creation of a uniform market standard for corresponding financing and investment will also boost defragmentation of the sustainable investment landscape and curb "greenwashing".



Source: European Commission, NORD/LB Markets Strategy & Floor Research

NORD/LB

Covered Bonds
The ratings approach of DBRS

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

DBRS rating approach for covered bonds

The purpose of this article in our weekly publication is to provide a schematic description of the rating approach used by DBRS for the assessment of covered bonds. Together with S&P, Fitch and Moody's, DBRS is one of the four "External Credit Assessment Institutions" (ECAI) listed in the "Eurosystem Credit Assessment Framework" (ECAF).

Covered bond ratings: DBRS working with four components

The DBRS approach comprises four components. Firstly, DBRS looks at the Reference Entity (RE). Accordingly, the Covered Bond Attachment Point (CBAP) is derived from the critical obligations rating (COR) or from the Reference Entity's Long-Term Senior Debt Rating (RE LTSDR) of the RE[1]. In the context of the second component, DBRS assesses the programme-specific legal and structuring framework (LSF). As a result of this component, DBRS derives a scaling for the framework which is valid for the cover pool (CP) with the ratings Very Strong, Strong, Adequate, Average and Modest. Based on the CBAP, as an anchor point for the rating level and the assessment of the LSF, the quality of the cover pool will be assessed in order to calculate the likelihood that the covered bonds issued under the programme will be repaid in accordance with the bond terms and conditions. The result of this assessment provides the LSF-Likelihood, which in turn should be seen as an intermediary step upon which the fourth component builds. This is described as "credit for high recovery prospects provided by the cover pool", and contains the analysis of the cover pool.

Component one: Covered Bond Attachment Point takes into account three regimes

The CBAP specifies the RE's credit strength. The RE's risk score provides the basis and may be subject to adjustments. In this context, the RE basis and potential notch adjustments depend on the legal framework and systemic relevance. It is differentiated between three regimes: i) European programmes where the RE is subject to the Bank Recovery and Resolution Directive (BRRD); ii) programmes where the RE is subject to a "BRRD-equivalent" regime; iii) programmes where the RE is neither subject to the BRRD nor subject to "BRRD-equivalent" regime. In the case of i), REs that have been assigned a COR are assessed. The COR reflects the default risk of obligations which are more likely to be exempt from bail-ins or which, in the event of the resolution of the bank, would be more likely to remain in that bank than other senior unsecured obligations. Where the DBRS rates the covered bond programme of a RE with a COR as being either of high importance for the domestic market or of high strategic importance for the issuer in terms of the funding of the RE's activities, the CBAP is equated with the COR. Otherwise, the CBAP is set one notch below the COR, but floored at the RE-LTSDR.

[1] Or the Long-Term Issuer rating if DBRS does not assign a Long-Term Senior Debt rating to the RE.

Reference to the importance of covered bonds for the domestic market

If no COR exists, the CBAP is set equal to the RE-LTSDR plus a notch if it is highly relevant for the domestic market and/or issuer. Otherwise, the CBAP is equal to the RE-LTSDR. For ii), a distinction is made between RE that are systemically relevant and those to which this does not apply. For the former, DBRS equates CBAP with RE-LTSDR, taking into account a possible uplift of up to two notches, provided that covered bonds are considered important for the home market or the program is strategic for the RE. Otherwise, DBRS equates the CBAP with the RE-LTSDR, plus a possible uplift of only one notch.

No systemic relevance, but high importance for the domestic market

If the RE is not deemed to be systemically important, but the covered bonds are highly important for the domestic market, then the CBAP can also be set at up to one notch above the RE-LTSDR. In other cases, the CBAP is equated with the RE-LTSDR. In the case of iii), the CBAP is equalised with the RE-LTSDR for REs which are not subject to a BRRD or a BRRD-equivalent regime.

Components two and three

With component two, DBRS is aiming to classify the Legal and Structuring Framework (LSF) that is relevant for the covered bond. The evaluation limits the number of possible uplifts based on the CBAP and is based on an analysis of i) the robustness of the segregation of the cover pool; ii) accessibility of cover pool cash flows on a preferential and timely basis, as well as the need and ability to liquidate the cover pool, including the likelihood of systemic support, and iii) contingency plans, including the possible involvement and responsibility of regulatory authorities or the relevant central bank to facilitate the transfer of the cover pool and support from the regulatory authorities for the covered bond market. As a result of the analysis, DBRS specifies the LSF Assessment, which can be rated Very Strong, Strong, Adequate, Average or Modest. The second component also includes the LSF-Likelihood (LSF-L), which denotes the likelihood that covered bond investors will be repaid in accordance with the bond conditions. Component three, the CP Credit Assessment, incorporates the assessment of the quality of the CP in order of whether it can meet the timely payment of interest and principal. DBRS includes exemptions where the assessment is not necessary: i) DBRS does not have a methodology applicable to the CP or ii) the LSF-L equals the CBAP and no rating uplift over the LSF-L is possible because of low recovery prospects. In these specific cases, the covered bond rating, therefore, equals the CBAP. Furthermore, component three is fundamentally regarded as the rating stress scenario which the structure is able to withstand given the overcollateralisation (OC) in place.

Combination of CBAP, LSF and Cover Pool Credit Assessment

The LSF-L reflects the likelihood that covered bond investors will receive payments in line with the bond terms and conditions. An assessment of the default probability of a covered bond is an integral part of DBRS's risk assessment. In principle, in view of dual recourse, a default only occurs when both the issuer and cover pool have defaulted. DBRS's methodology also works on the assumption of positive linear default correlation between the issuer and the cover pool. This means that a default correlation coefficient of $\rho>0$ is assumed. In addition to the correlation coefficient, the results of the first three components of the ratings approach are also factored into the calculation.

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Probability of default of RE and cover pool

In this context, DBRS outlines the RE default probability by way of the CBAP, whereas the default probability of the cover pool is reflected by the Cover Pool Credit Assessment. The LSF assessment is also factored into the calculation through parameter, whereby the five potential matrices are each assigned a value which corresponds to the probability that investors will not have the full benefit of the cover pool or that the proceeds of the cover pool will not be disbursed rapidly enough in order to avert a default of the bond.

Recovery prospects provided by the quality of the cover pool

In the fourth component, DBRS also indicates the possibility of granting a comprehensive rating uplift of up to two notches, provided that the analysis of the cover pool indicates that the cover pool would offer substantial support or high recovery rates following a default of the covered bond. The following is a tabular summary of the building blocks previously described.

DBRS Methodology Covered Bonds: The four components at a glance

Building block	Major components
I. Covered bond attachment point (CBAP)	▪ Designates the credit strength of the RE ▪ European covered bond programmes where RE is subject to the BRRD: a. With critical obligations rating (COR); CBAP = [COR] or min([COR -1];[RE-LTSDR]) b. Without COR: LT senior debt rating RE; CBAP = [RE-LTSDR+1] or [RE-LTSDR] ▪ Covered bond programs where the RE is subject to “BRRD-equivalent” regime: a. RE systemically important: CBAP = [RE-LTSDR+ up to 2] or [RE-LTSDR+ up to 1] b. RE not systemically important: CBAP = [RE-LTSDR+ up to 1] or [RE-LTSDR] c. Canadian REs: CBAP = LT senior debt rating ▪ Covered bond programs where the RE is neither subject to the BRRD nor subject to “BRRD-equivalent” regime: CBAP = [RE-LTSDR]
II. Legal and structuring framework (LSF) and LSF-L	▪ Likelihood that payment obligations could be smoothly and efficiently transferred ▪ Review of dedicated covered bond legislation ▪ Prerequisite: covered bonds do not automatically default ▪ Ability and willingness of the regulator to support ▪ Likelihood that CB holders will be repaid according to the terms (LSF-L)
III. Cover Pool Credit Assessment	▪ Likelihood that covered bonds will be repaid according to their terms ▪ Estimation of PD and LGD, analysis of stressed asset cash flows ▪ Accounts for timing of RE discontinuing its payments ▪ Cover pools with public sector exposures may deserve a different type of analysis (high correlation between the PSEs and the sovereign in which the cover assets are concentrated) ▪ Where applicable, downscaling of OC by reference to the minimum observed OC during the past 12m
IV. Recovery Prospects	▪ DBRS may give up to two notches uplift from the LSF-L ▪ Application of cash flow simulation aimed at covering the cost of funding under stress scenario

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

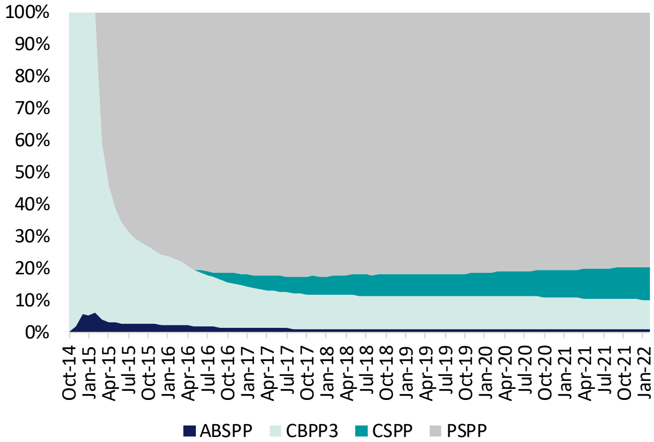
NORD/LB

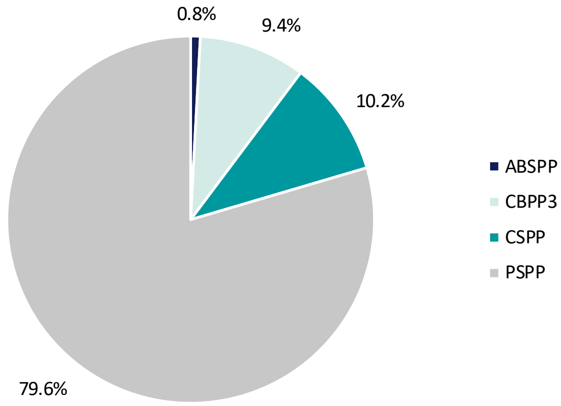
ECB tracker

Asset Purchase Programme (APP)

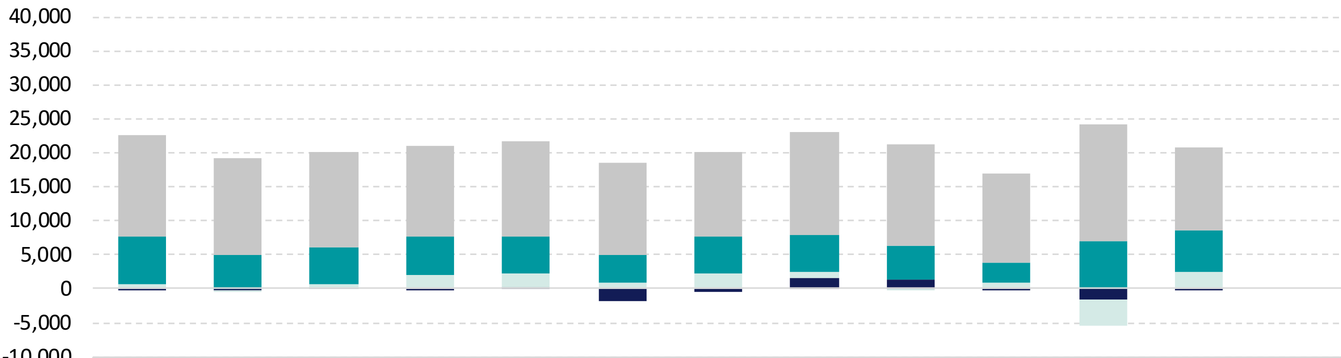
	ABSPP	CBPP3	CSPP	PSPP	APP
Jan-22	26,740	294,407	316,646	2,504,428	3,142,221
Feb-22	26,696	296,783	322,918	2,516,523	3,162,920
Δ	-45	+2,376	+6,272	+12,095	+20,698

Portfolio structure





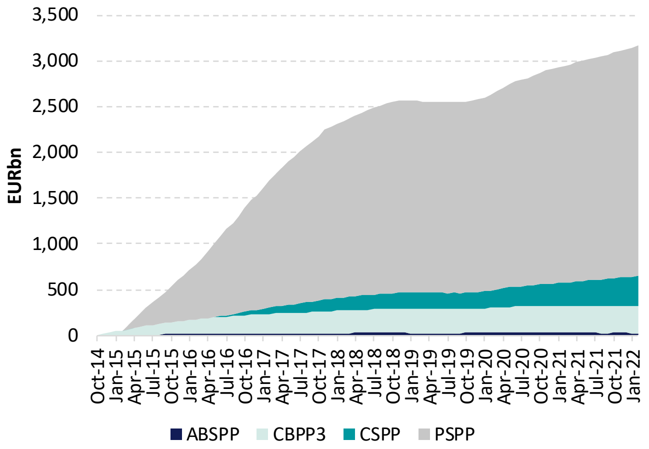
Monthly net purchases (in EURm)



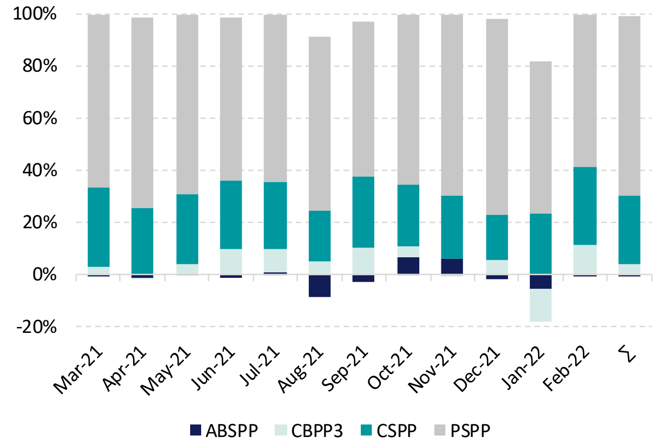
	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
APP	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	20,698	240,614
PSPP	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	12,095	168,592
CSPP	6,929	5,015	5,394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

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

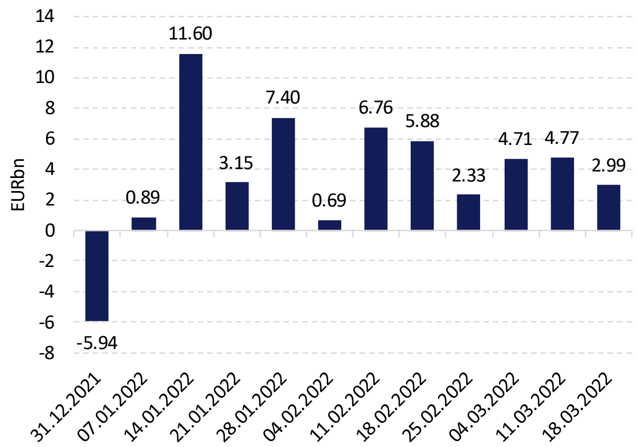
Portfolio development



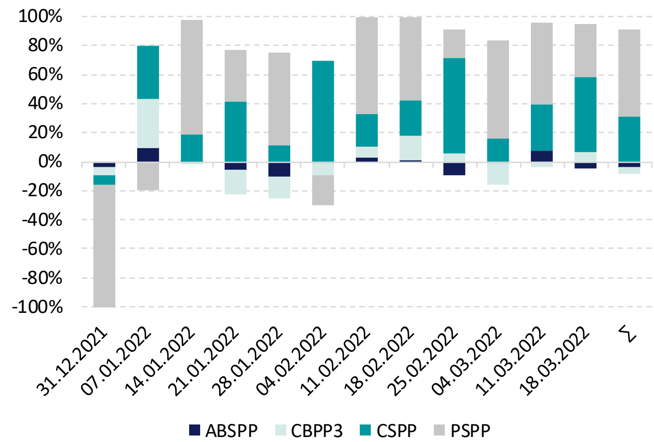
Distribution of monthly purchases



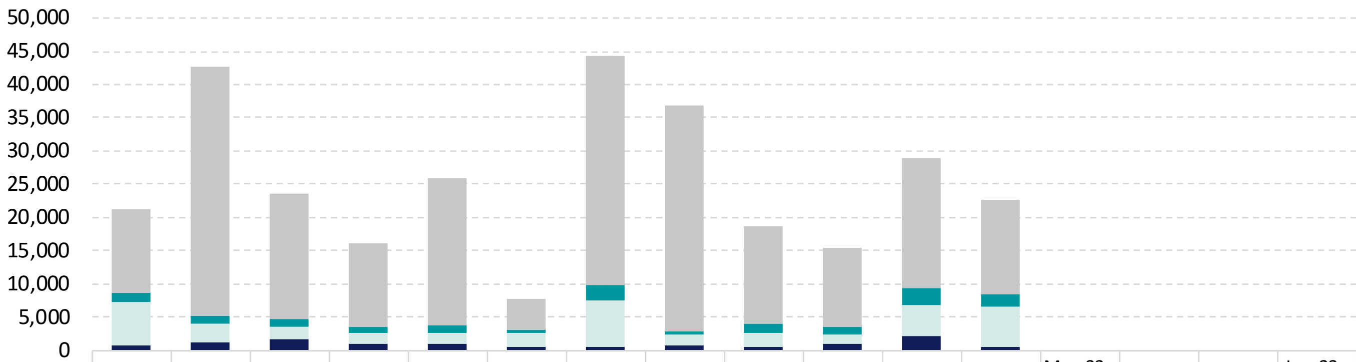
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)



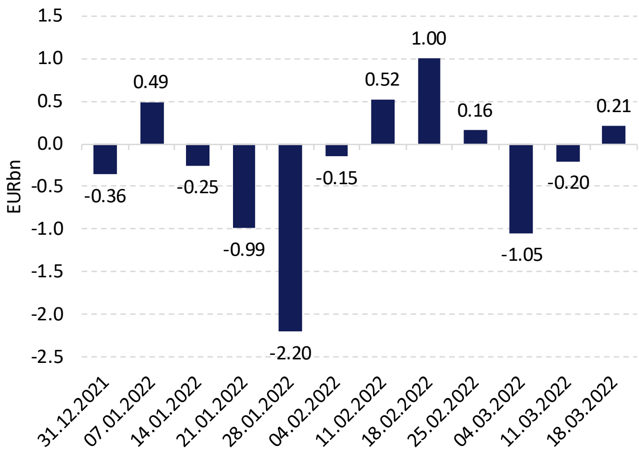
	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-22 - Feb-23	2021	2022	Jan-23 - Feb-23
APP	21,175	42,745	23,603	16,211	26,009	7,834	44,257	36,867	18,607	15,465	28,836	22,762	304,371	247,069	296,334	51,598
PSPP	12,603	37,532	18,999	12,638	22,238	4,841	34,354	34,003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

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

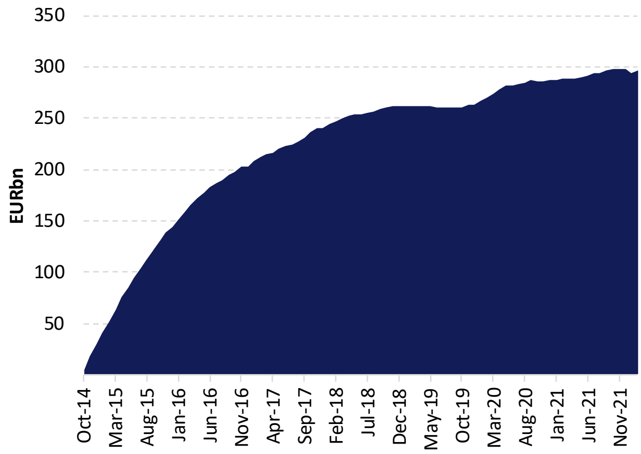
NORD/LB

Covered Bond Purchase Programme 3 (CBPP3)

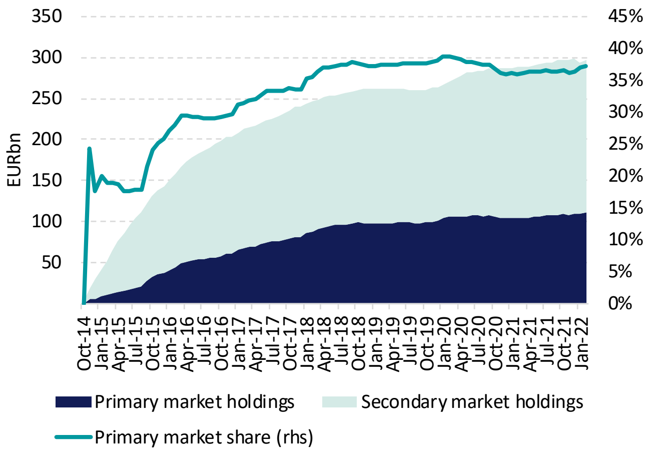
Weekly purchases



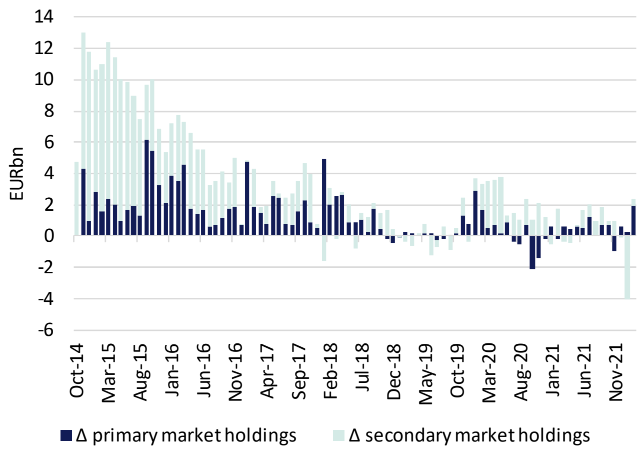
Development of CBPP3 volume



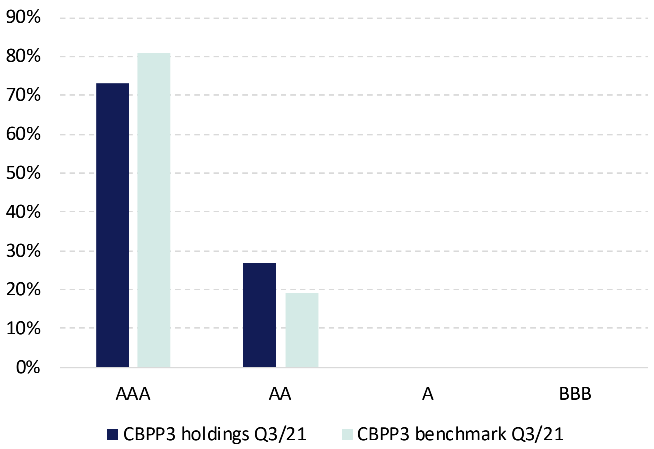
Primary and secondary market holdings



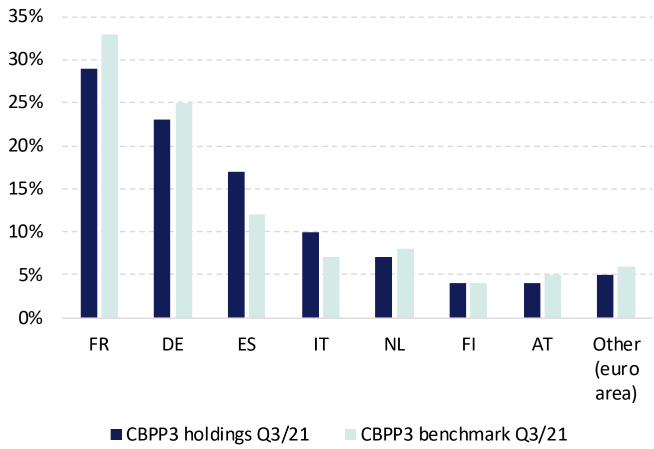
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



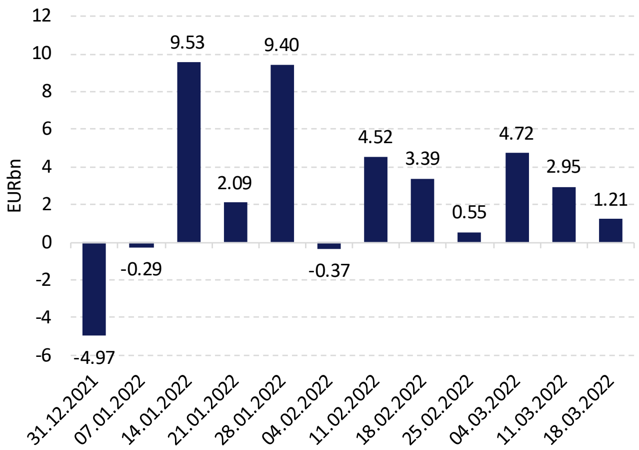
Distribution of CBPP3 by country of risk



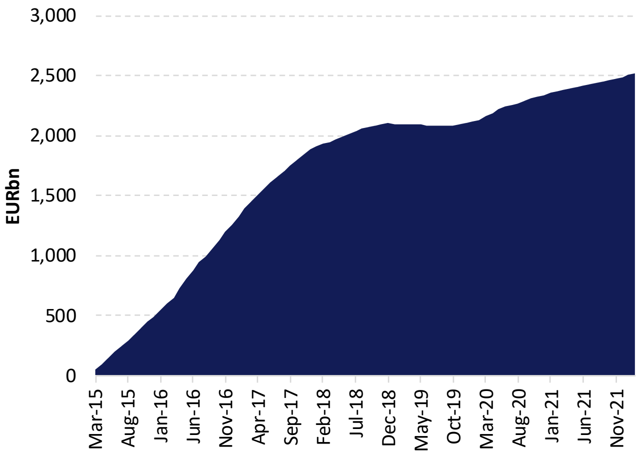
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



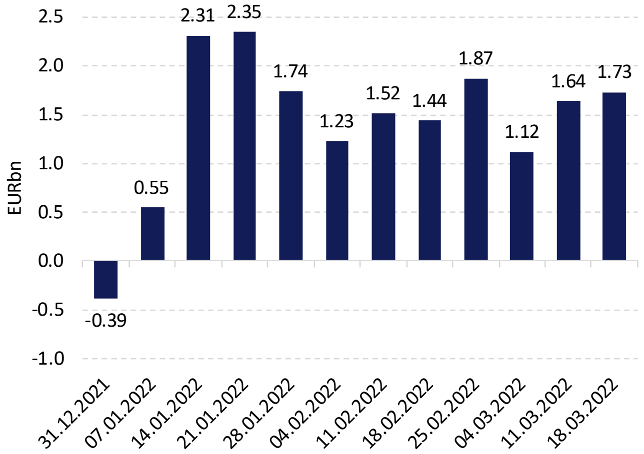
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Purchases (EURm)	Expected purchases (EURm)[2]	Difference (EURm)	Avg. time to maturity[3] (in years)	Market average[3] (in years)[3]	Difference (in years)
AT	2.7%	73,940	71,860	2,080	7.5	7.6	-0.1
BE	3.4%	92,603	89,448	3,155	8.0	10.2	-2.2
CY	0.2%	4,275	5,283	-1,008	9.9	8.8	1.1
DE	24.3%	640,615	647,220	-6,605	6.6	7.6	-1.0
EE	0.3%	414	6,916	-6,502	9.2	7.5	1.7
ES	11.0%	305,586	292,769	12,817	8.0	8.4	-0.4
FI	1.7%	42,422	45,098	-2,676	6.9	7.7	-0.8
FR	18.8%	522,937	501,452	21,485	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,963	41,575	388	8.5	10.1	-1.6
IT	15.7%	437,653	417,097	20,556	7.1	7.9	-0.8
LT	0.5%	5,649	14,210	-8,561	10.2	10.6	-0.4
LU	0.3%	3,944	8,087	-4,143	5.6	7.2	-1.7
LV	0.4%	3,440	9,567	-6,127	11.3	10.4	0.9
MT	0.1%	1,375	2,575	-1,200	9.5	9.2	0.3
NL	5.4%	124,353	143,884	-19,531	7.7	9.0	-1.4
PT	2.2%	52,086	57,463	-5,377	7.0	7.2	-0.2
SI	0.4%	10,544	11,822	-1,278	9.9	10.2	-0.3
SK	1.1%	17,322	28,117	-10,795	8.2	8.3	-0.1
SNAT	10.0%	279,373	266,049	13,324	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,660,494**	**2,660,494**	**0**	**7.3**	**8.2**	**-0.9**

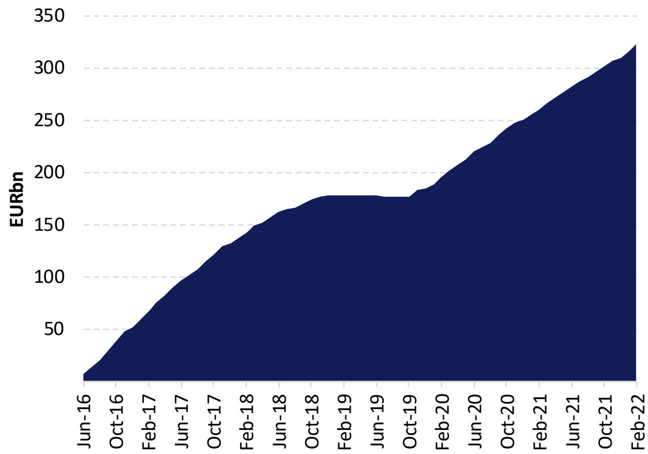
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

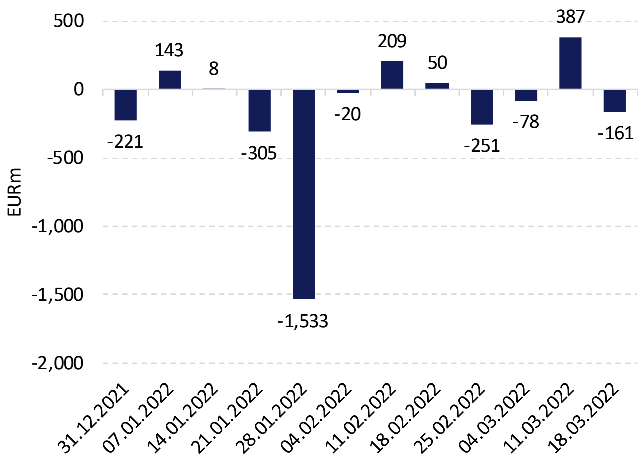


Development of CSPP volume

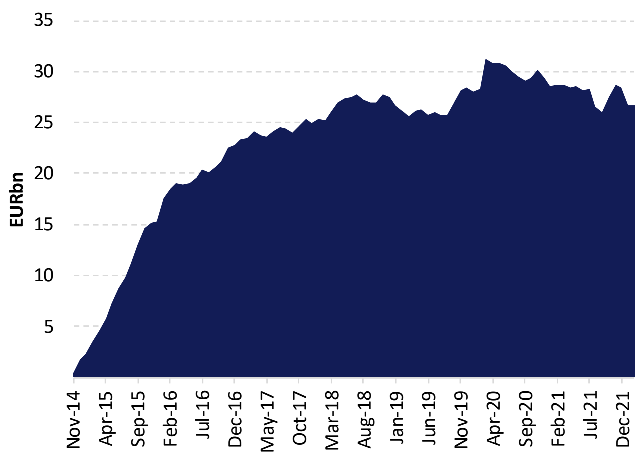


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



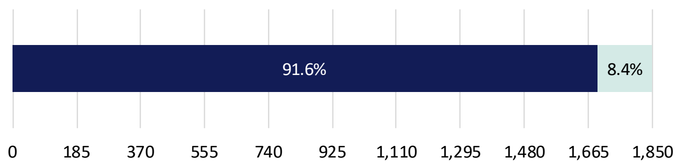
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

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

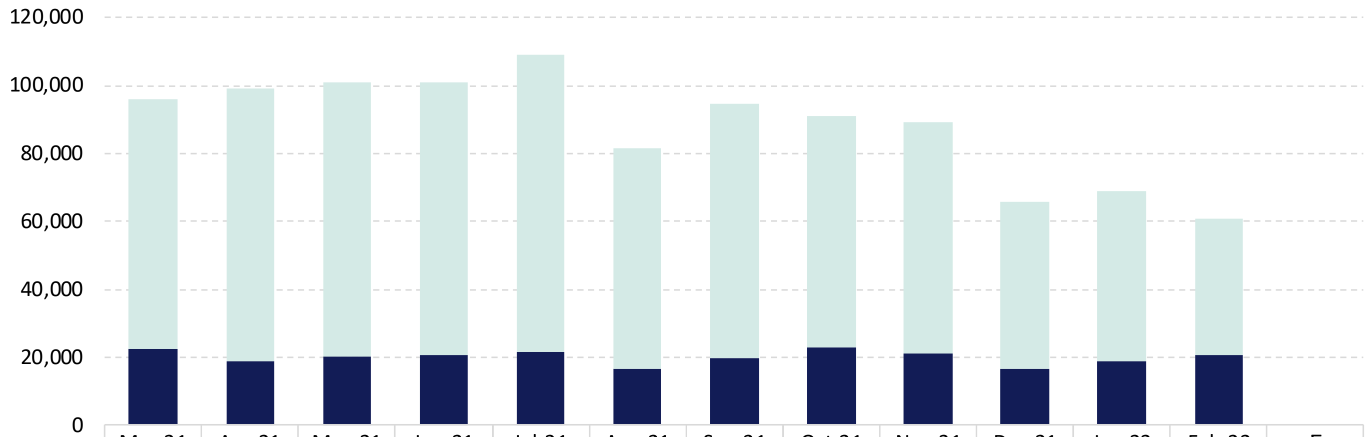
Volume already invested (in EURbn)



Estimated portfolio development

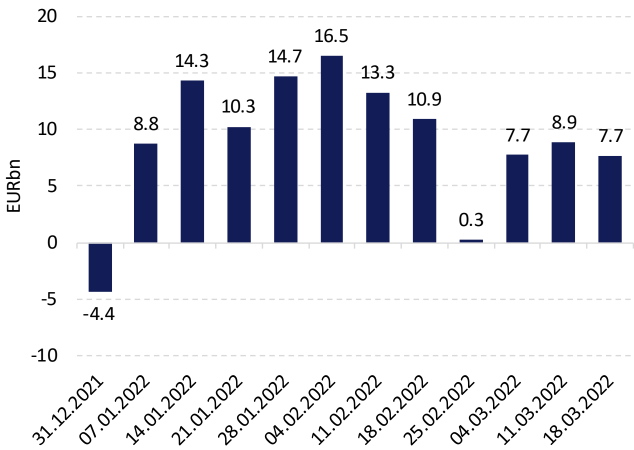
Assumed pace of purchases	Weekly net purchase volume	PEPP (theoretically) limit hit in ...
Average weekly net purchase volume so far	EUR 16.4bn	9 weeks (20.05.2022)

Monthly net purchases (in EURm)

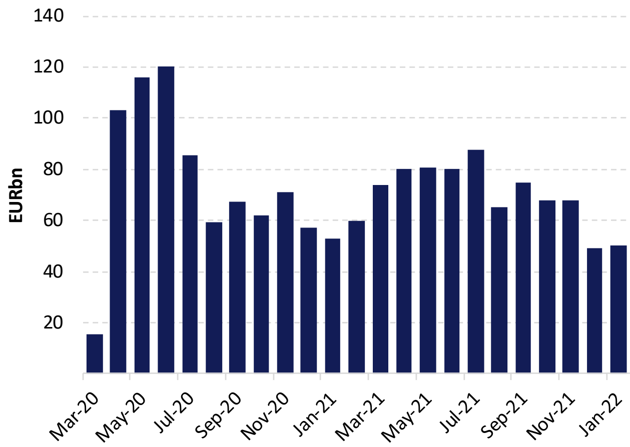


	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
∑	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	1,058,35
PEPP	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	817,737
APP	22,561	18,918	20,141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

Weekly purchases



Development of PEPP volume

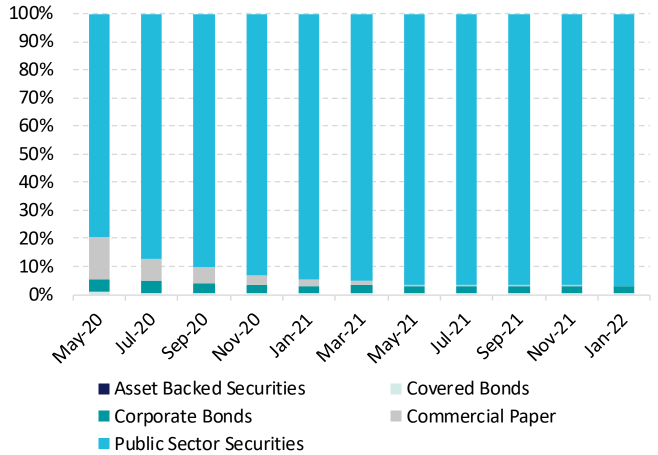


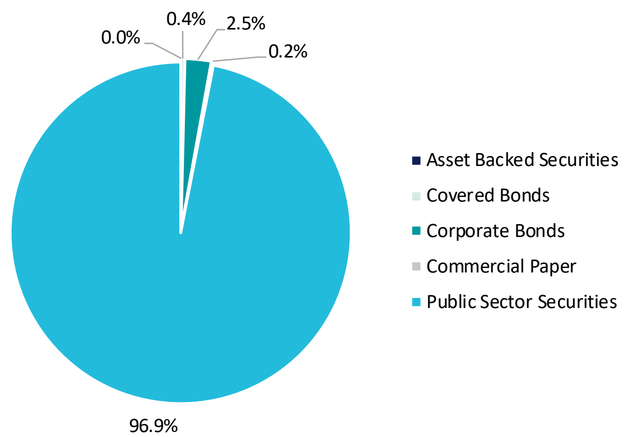
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

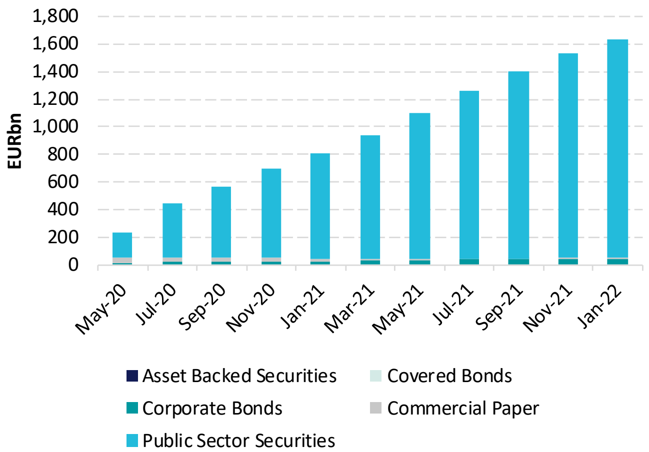
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Nov-21	0	6,079	39,871	4,032	1,485,526	1,535,508
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Δ	0	0	+467	-172	+99,193	+99,488

Portfolio structure

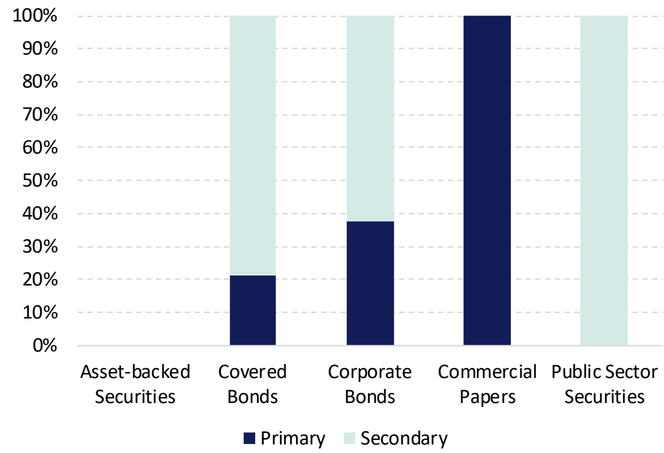




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

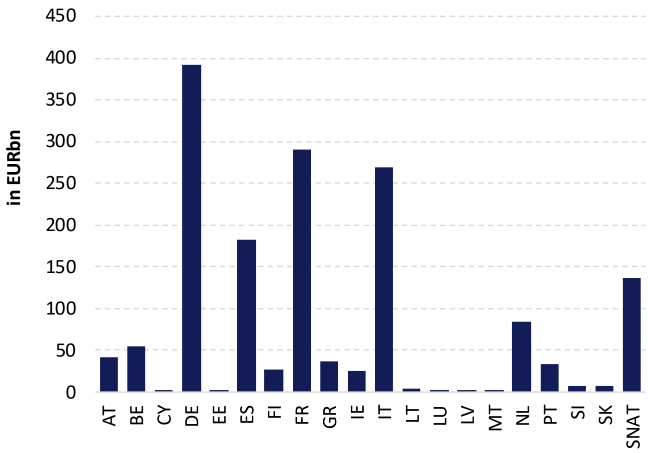
Jan-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Holdings in EURm	0	0	1,298	4,775	15,101	25,200	3,857	0
Share	0.0%	0.0%	21.4%	78.6%	37.5%	62.5%	100.0%	0.0%

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

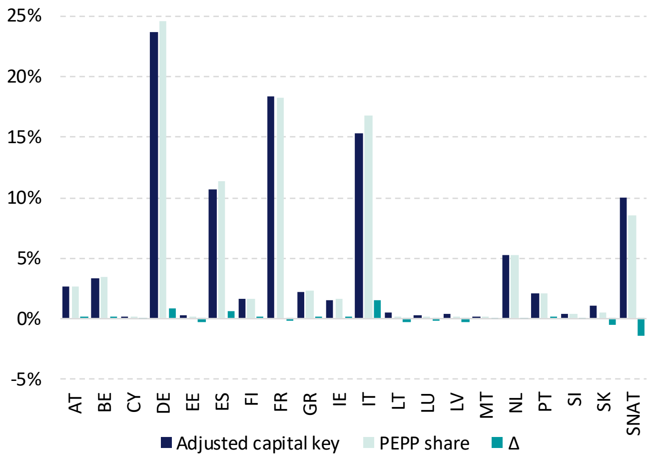
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key[1]	PEPP share	Deviations from the adj. distribution key[2]	ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	42,272	2.6%	2.6%	0.0%	8.2	7.0	1.2
BE	54,203	3.3%	3.4%	0.1%	6.6	9.2	-2.6
CY	2,514	0.2%	0.2%	0.0%	8.6	8.1	0.5
DE	392,570	23.7%	24.6%	0.9%	6.2	6.8	-0.6
EE	256	0.3%	0.0%	-0.2%	8.4	8.4	0.0
ES	181,624	10.7%	11.4%	0.6%	7.7	7.5	0.2
FI	26,807	1.7%	1.7%	0.0%	6.9	7.5	-0.7
FR	291,113	18.4%	18.2%	-0.2%	8.1	7.5	0.6
GR	36,876	2.2%	2.3%	0.1%	8.9	9.6	-0.7
IE	25,332	1.5%	1.6%	0.1%	8.9	9.5	-0.6
IT	268,405	15.3%	16.8%	1.5%	7.1	6.9	0.2
LT	3,129	0.5%	0.2%	-0.3%	10.5	10.1	0.4
LU	1,914	0.3%	0.1%	-0.2%	6.3	6.3	0.0
LV	1,710	0.4%	0.1%	-0.2%	9.3	9.2	0.0
MT	544	0.1%	0.0%	-0.1%	10.8	9.0	1.9
NL	83,893	5.3%	5.3%	0.0%	7.6	8.5	-0.9
PT	33,857	2.1%	2.1%	0.0%	6.9	7.3	-0.4
SI	6,311	0.4%	0.4%	0.0%	9.2	9.2	0.0
SK	7,605	1.0%	0.5%	-0.6%	9.2	8.4	0.8
SNAT	136,399	10.0%	8.5%	-1.5%	10.1	8.5	1.5
Total / Avg.	**1,597,334**	**100.0%**	**100.0%**	**0.0%**	**7.5**	**7.5**	**0.1**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



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

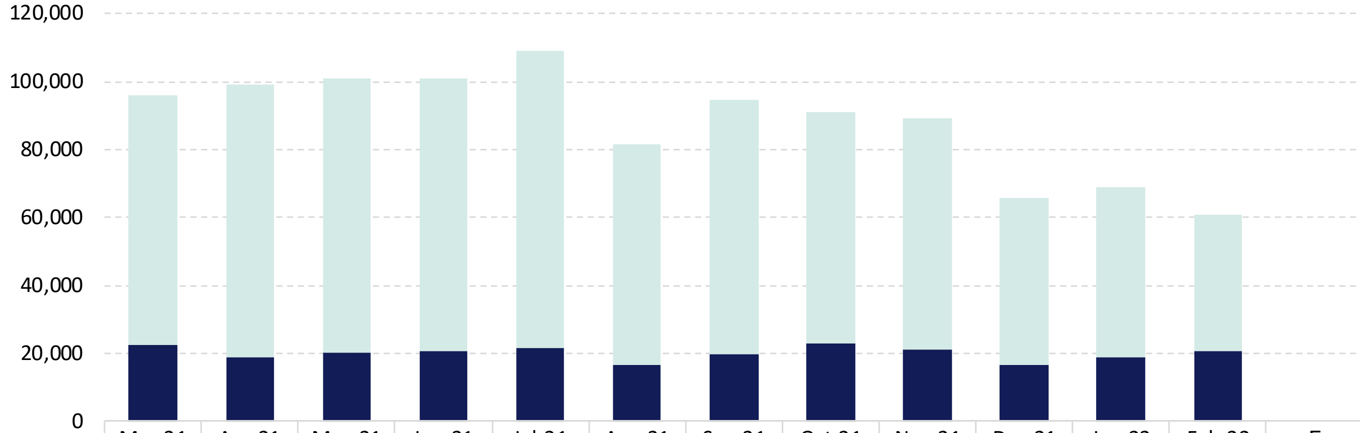
NORD/LB

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

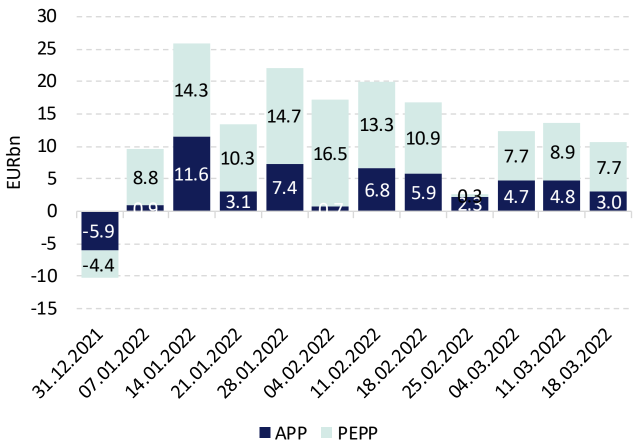
	APP	PEPP	APP & PEPP
Jan-22	3,142,221	1,647,678	4,789,899
Feb-22	3,162,920	1,687,862	4,850,782
Δ	+20,698	+40,184	+60,882

Monthly net purchases (in EURm)

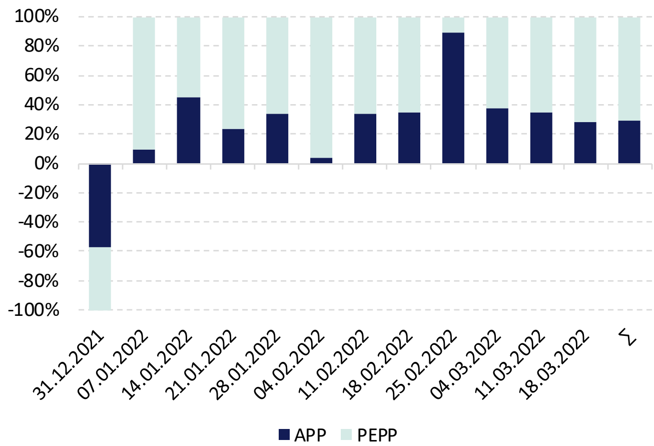


	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	∑
∑	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	60,882	1,058,35
PEPP	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	40,184	817,737
APP	22,561	18,918	20,141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

Weekly purchases



Distribution of weekly purchases

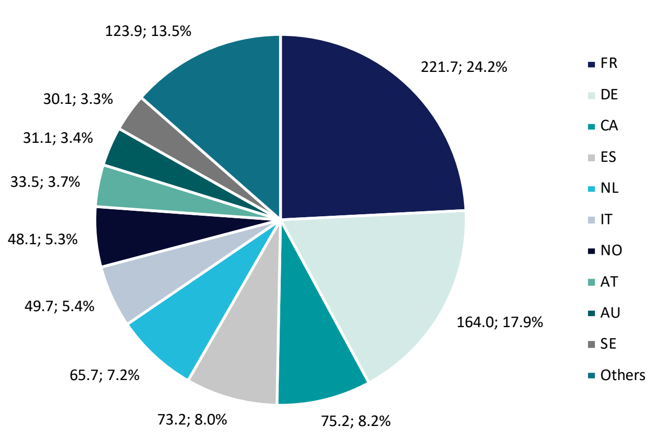


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

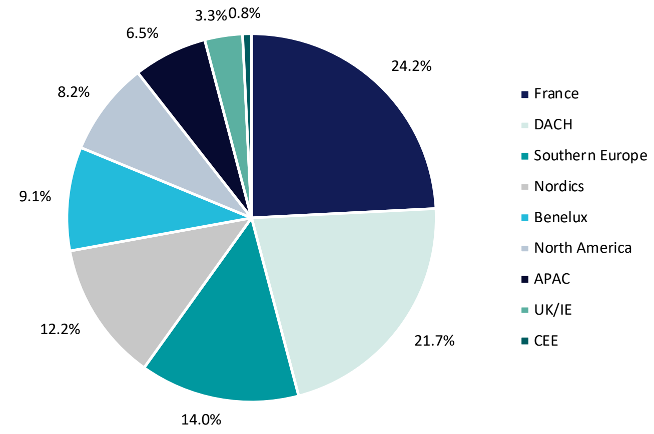
NORD/LB

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



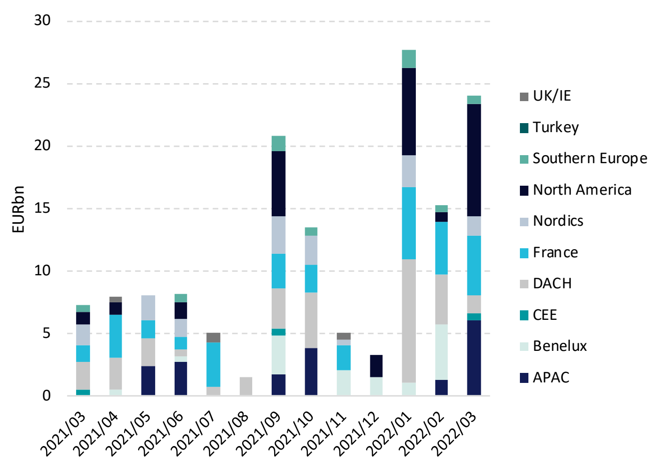
EUR benchmark volume by region (in EURbn)



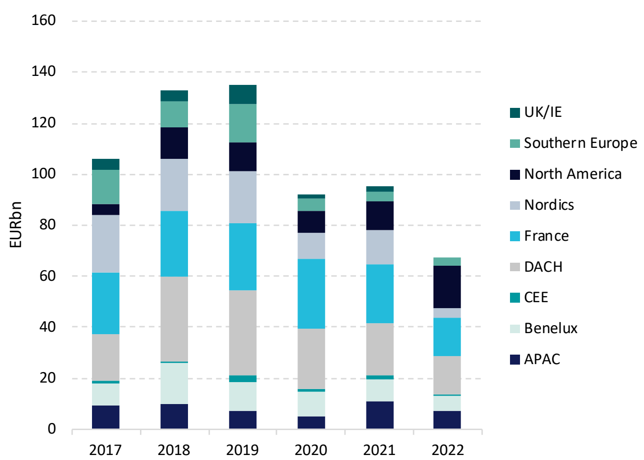
Top-10 jurisdictions

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	221.7	212	11	0.94	10.1	5.7	0.81
2	DE	164.0	238	17	0.63	8.4	4.6	0.41
3	CA	75.2	59	0	1.23	5.9	3.3	0.24
4	ES	73.2	59	5	1.13	11.8	3.9	1.78
5	NL	65.7	67	0	0.93	11.6	7.7	0.71
6	IT	49.7	59	2	0.81	9.2	4.4	1.24
7	NO	48.1	57	9	0.84	7.4	4.0	0.34
8	AT	33.5	62	2	0.54	9.9	6.3	0.53
9	AU	31.1	31	0	1.00	8.4	3.9	0.89
10	SE	30.1	36	0	0.83	7.5	3.4	0.42

EUR benchmark issue volume by month

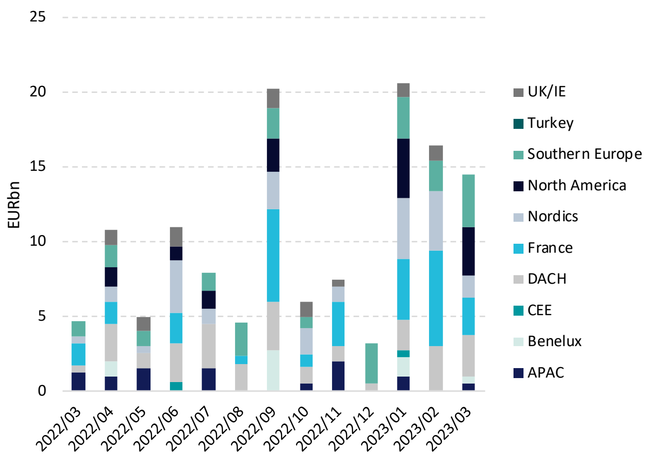


EUR benchmark issue volume by year

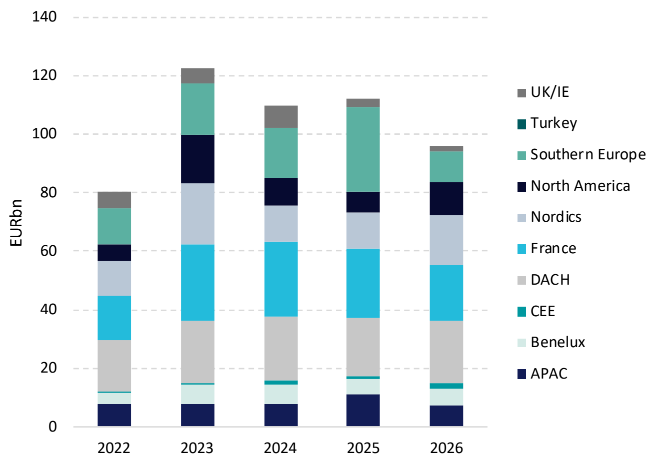


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

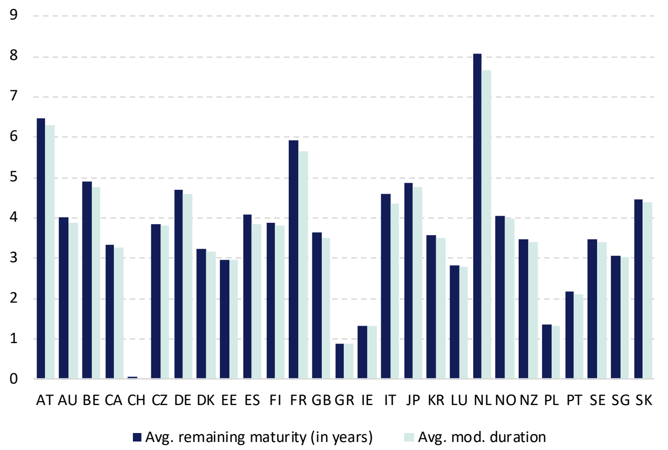
EUR benchmark maturities by month



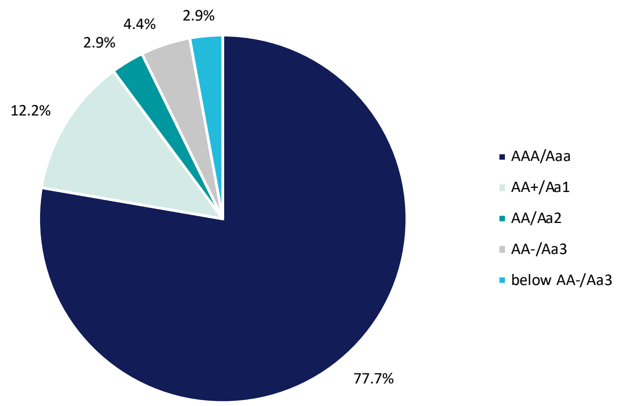
EUR benchmark maturities by year



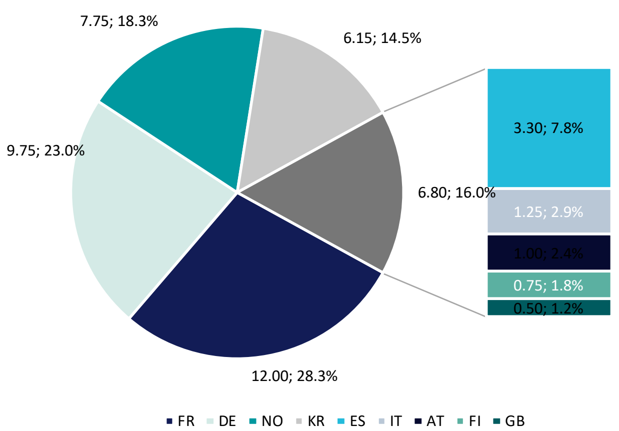
Modified duration and time to maturity by country



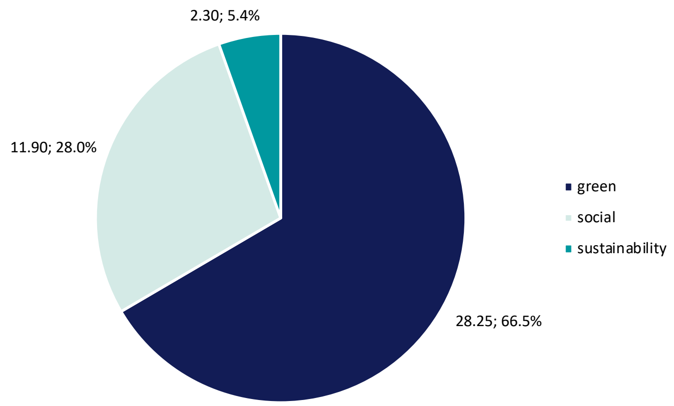
Rating distribution (volume weighted)



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



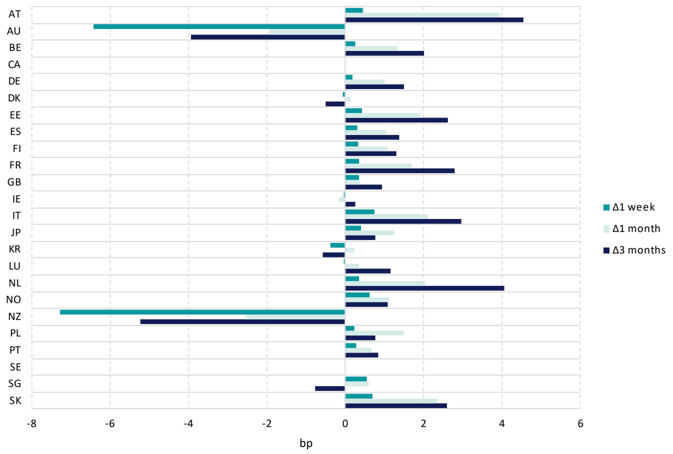
EUR benchmark volume (ESG) by type (in EURbn)



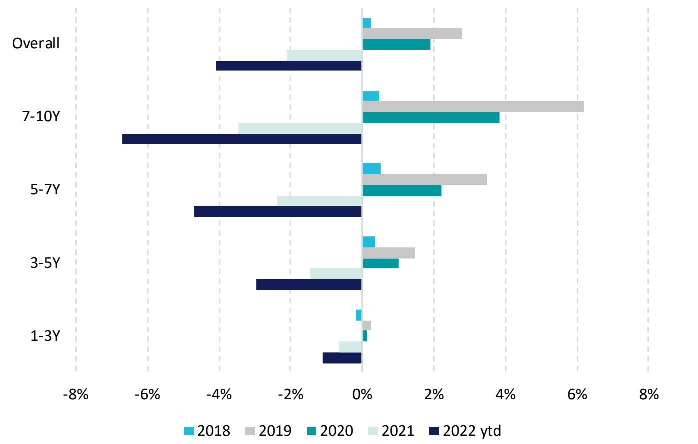
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

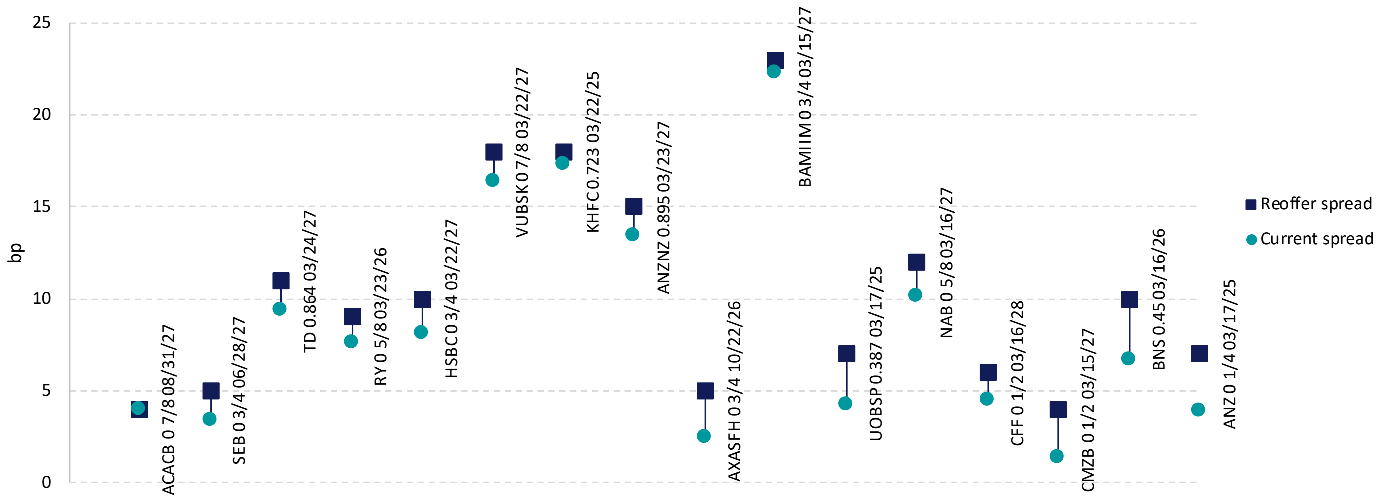
Spread development by country



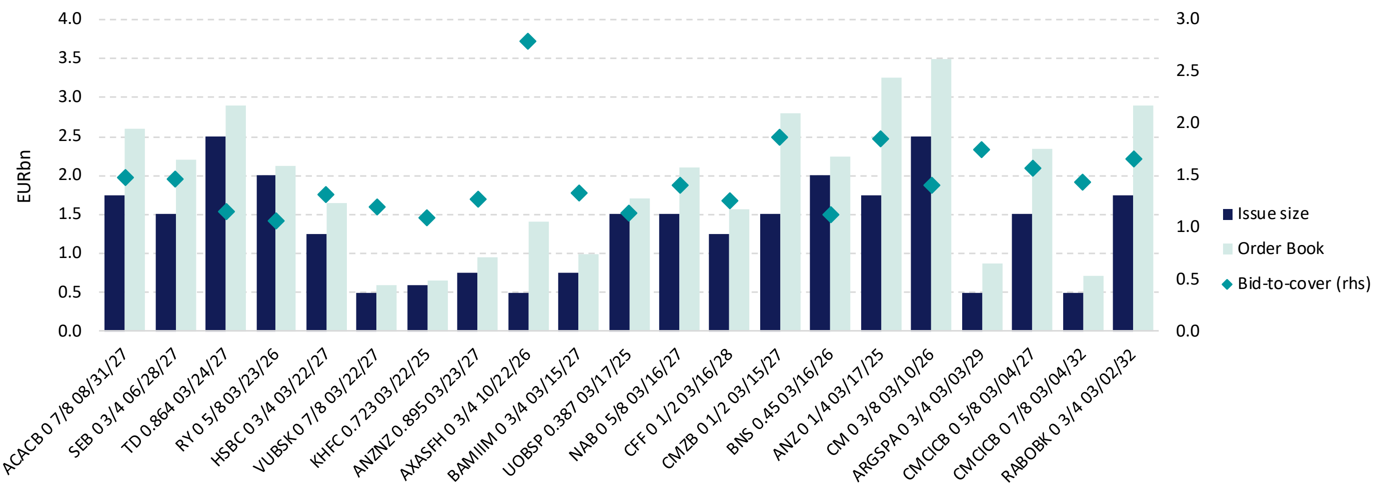
Covered bond performance (Total return)



Spread development (last 15 issues)



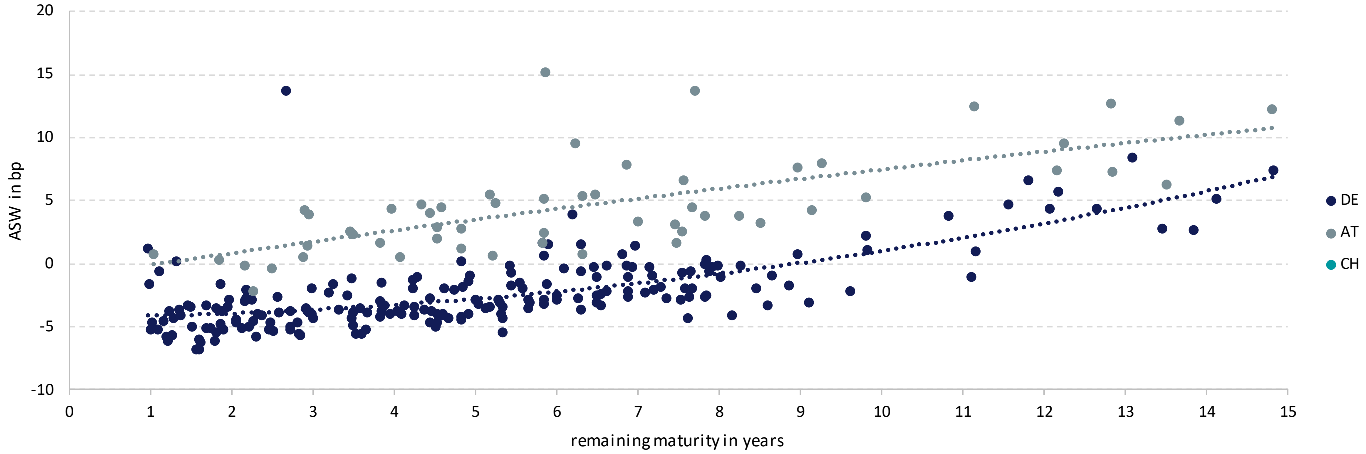
Order books (last 15 issues)



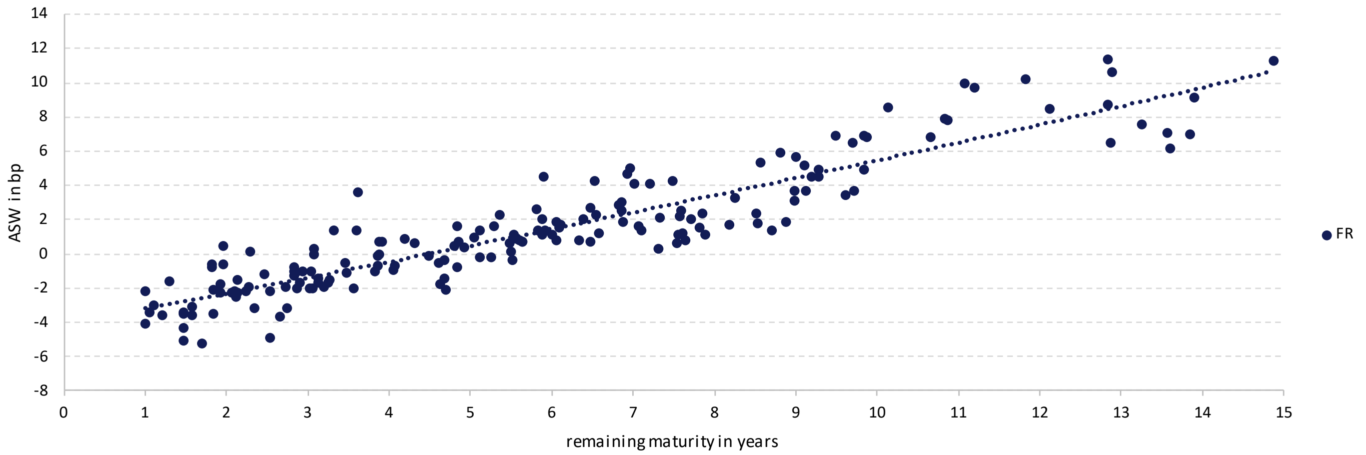
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

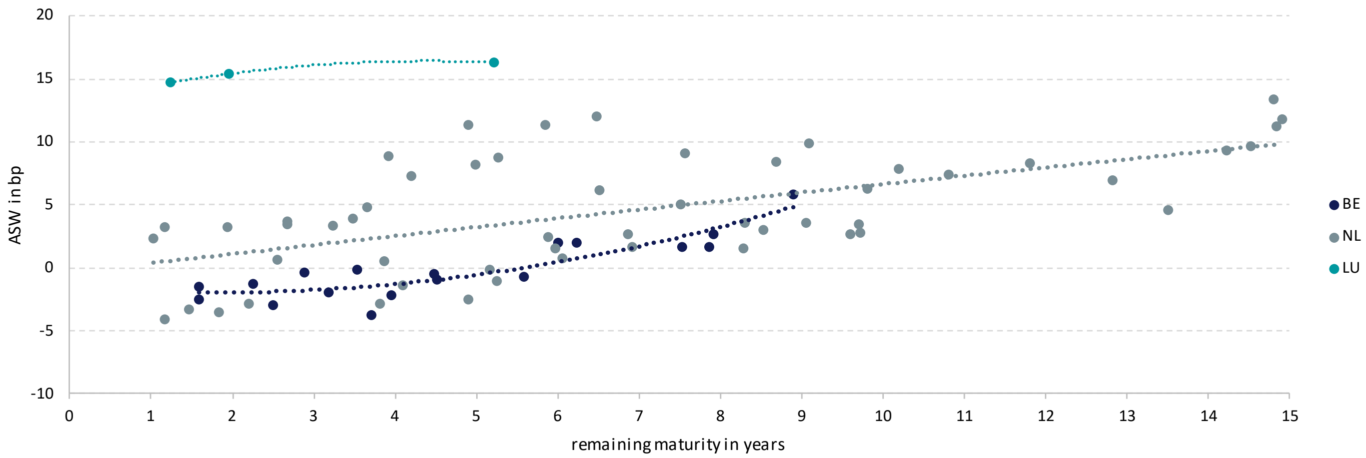
DACH



France

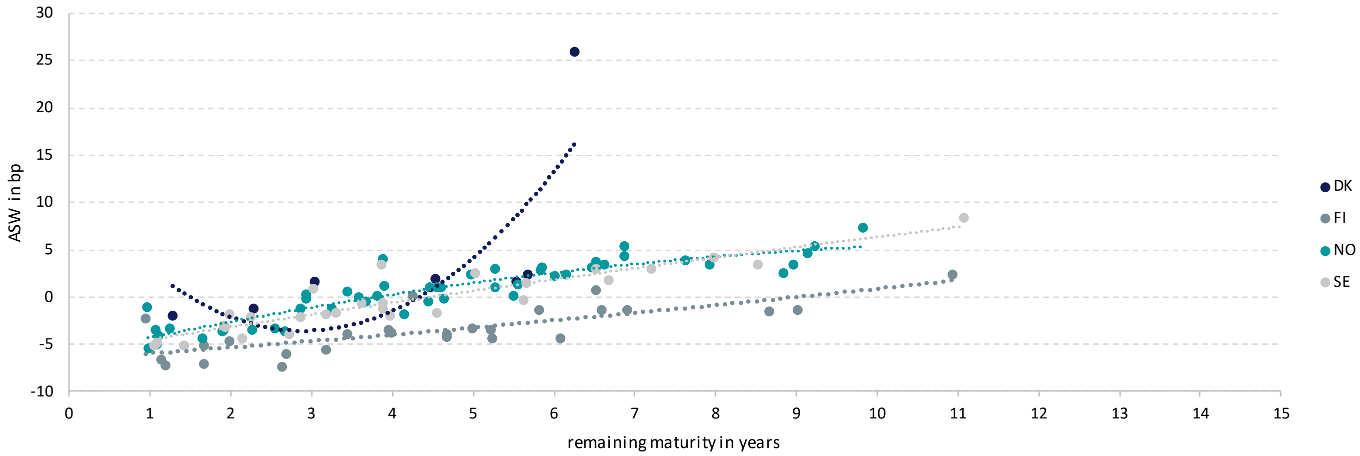


Benelux

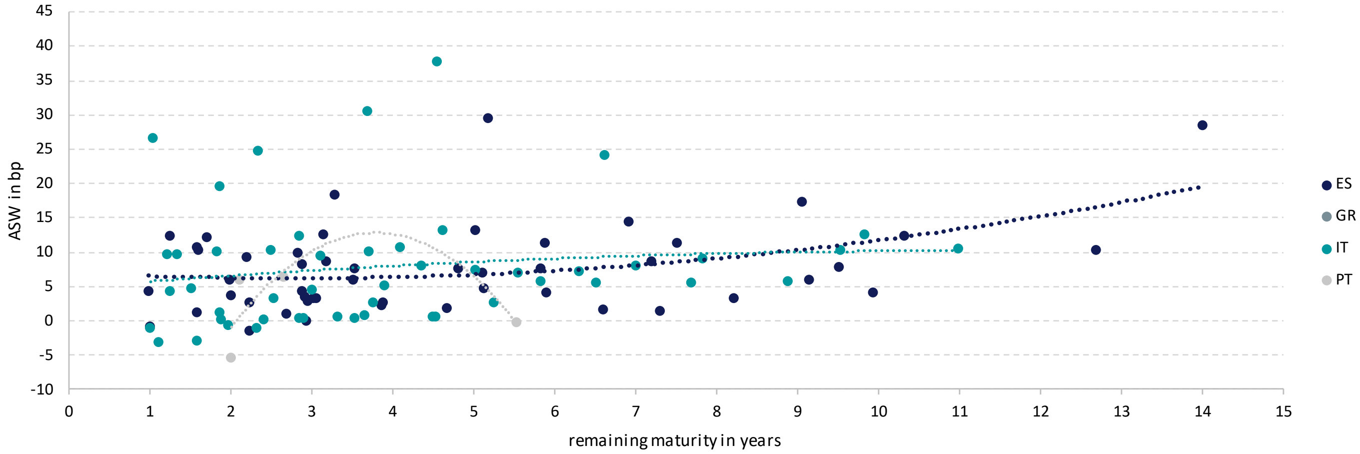


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

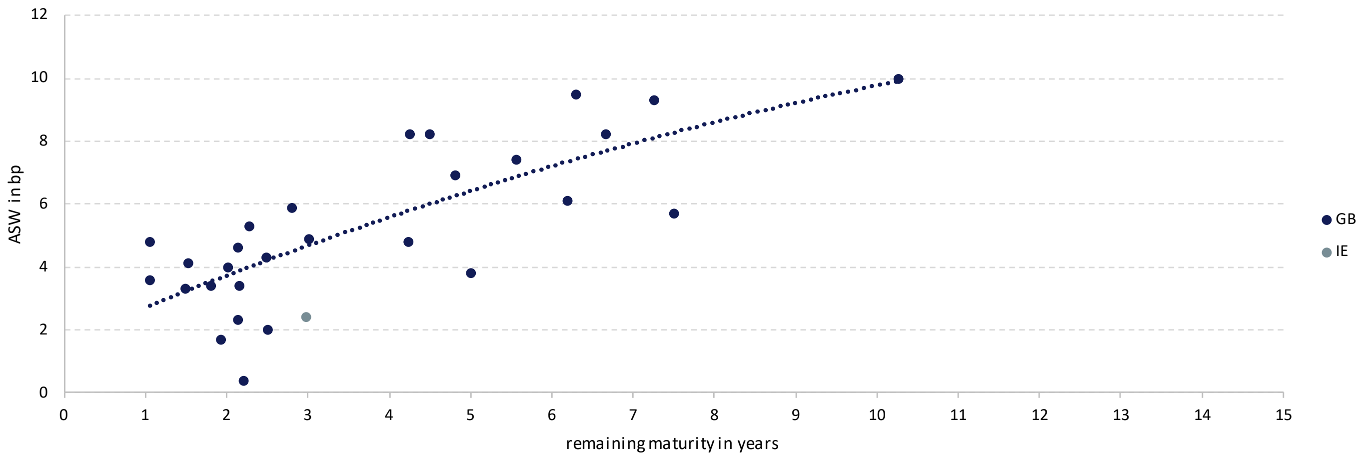
Nordics



Southern Europe

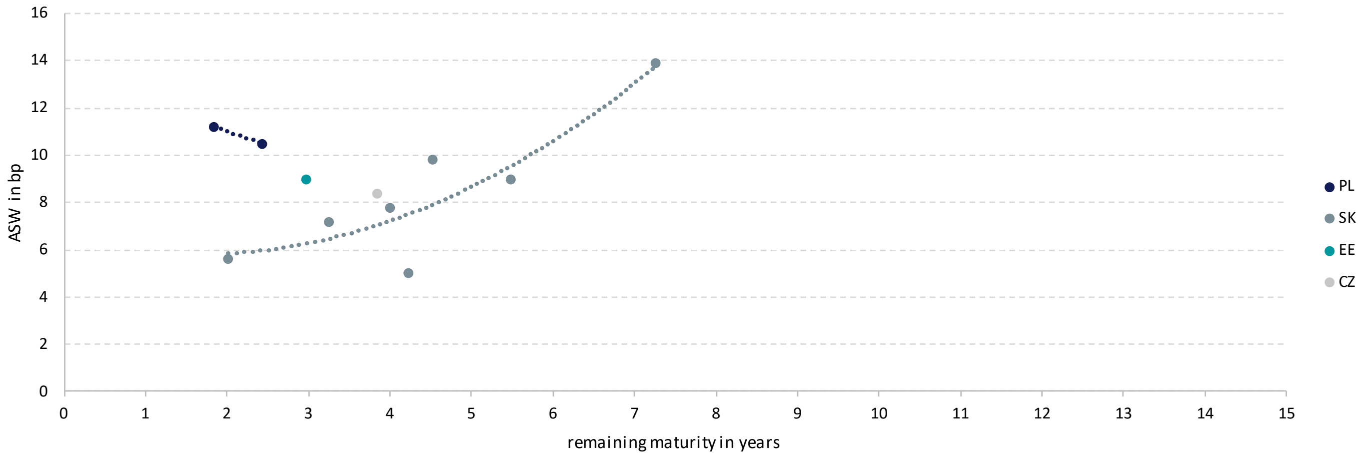


UK/IE

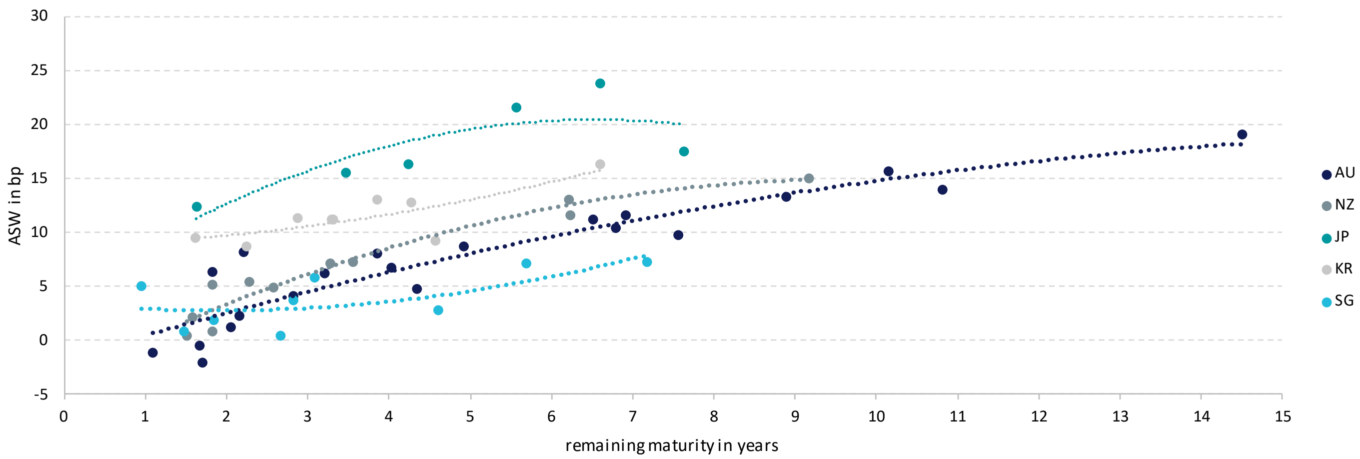


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

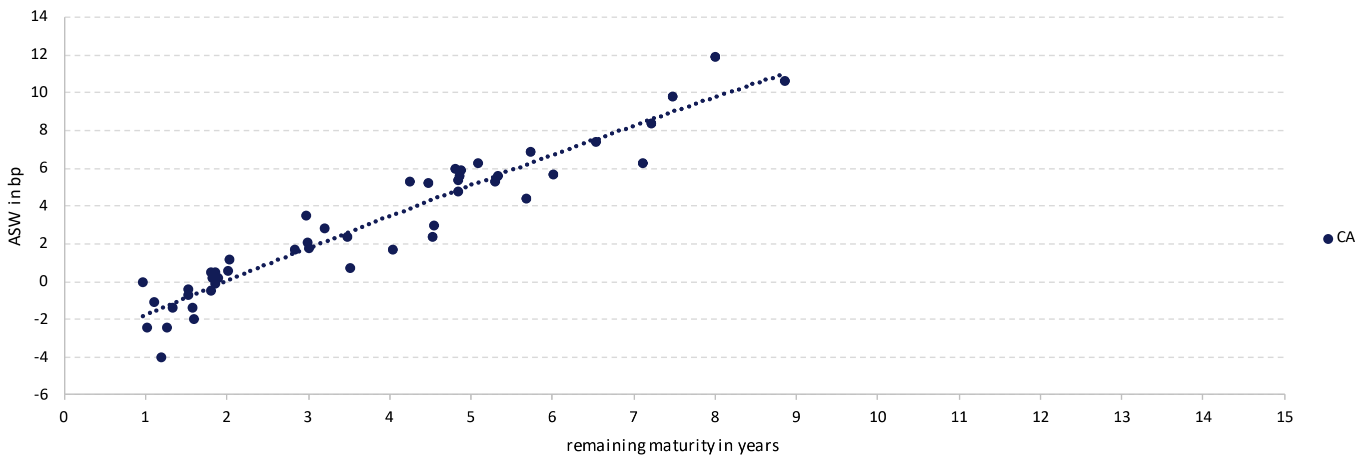
CEE



APAC



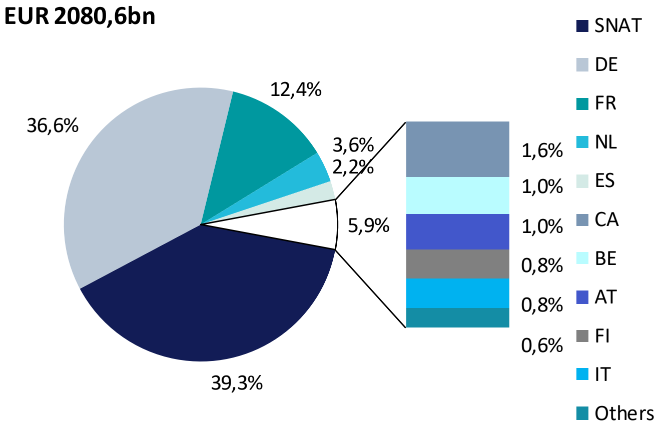
North America



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

Charts & Figures
SSA/Public Issuers

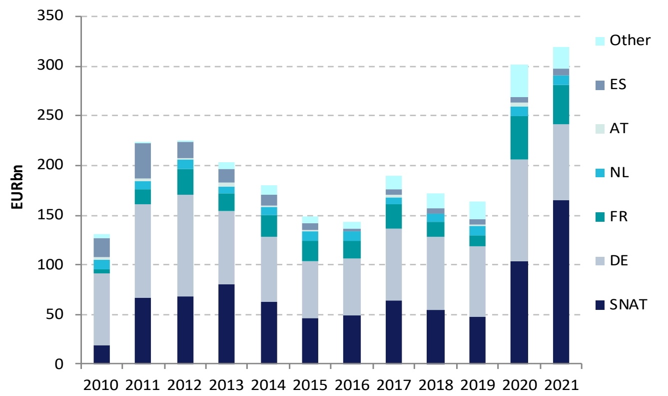
Outstanding volume (bmk)



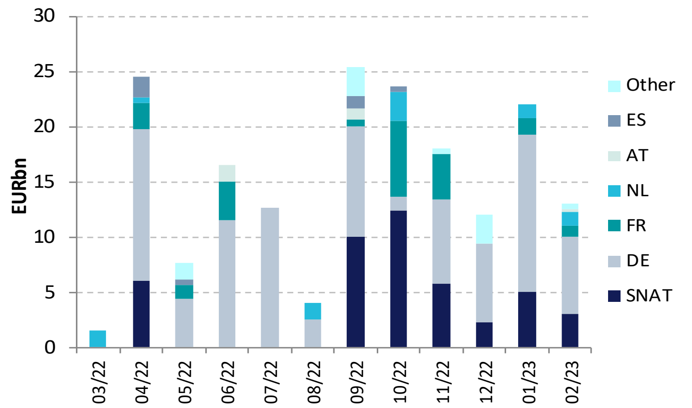
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	817,5	202	4,0	8,6
DE	761,1	576	1,3	6,7
FR	258,2	180	1,4	6,5
NL	75,9	69	1,1	6,5
ES	45,7	58	0,8	4,9
CA	33,2	22	1,5	5,3
BE	21,7	25	0,9	13,4
AT	21,2	23	0,9	4,7
FI	17,5	21	0,8	6,0
IT	16,8	20	0,8	5,3

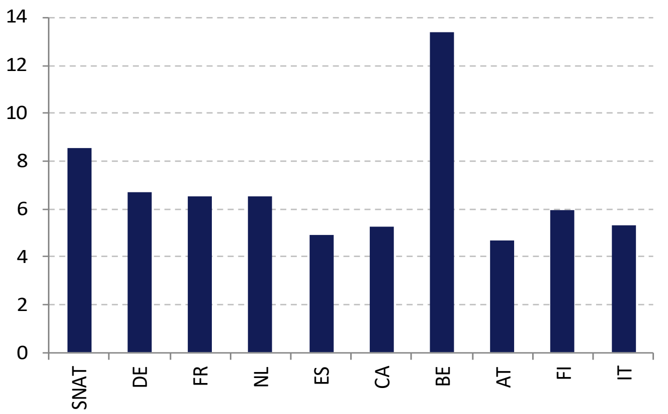
Issue volume by year (bmk)



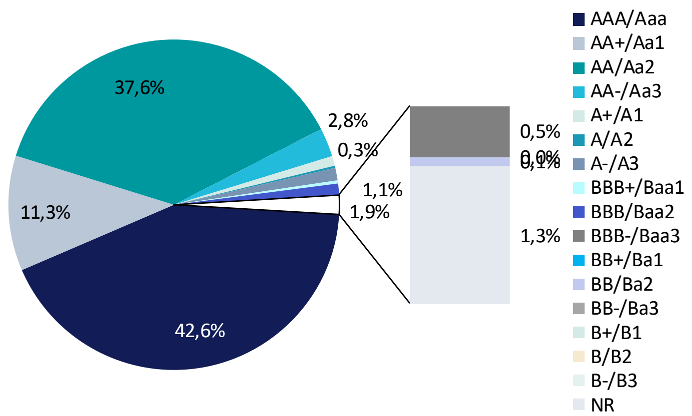
Maturities next 12 months (bmk)



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



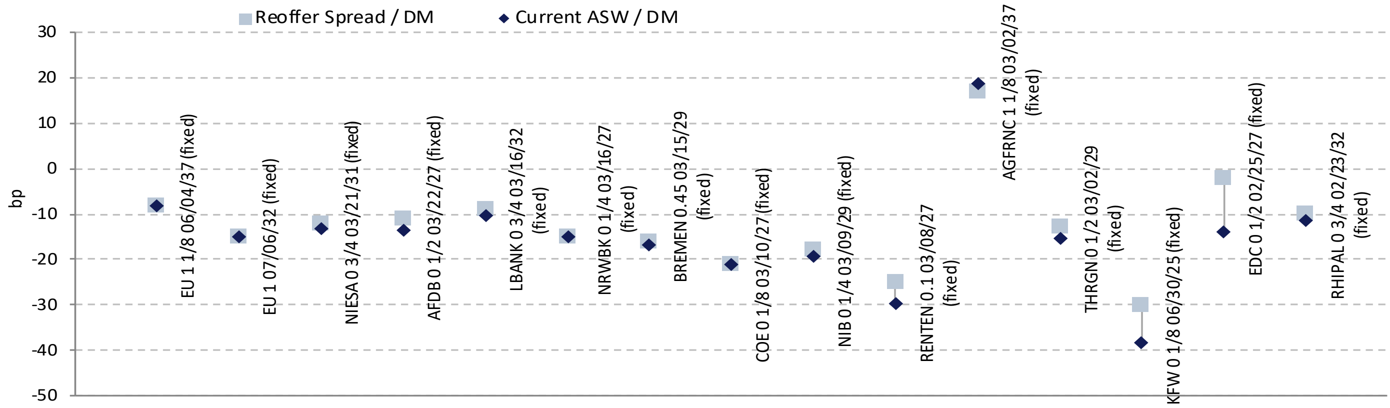
Rating distribution (vol. weighted)



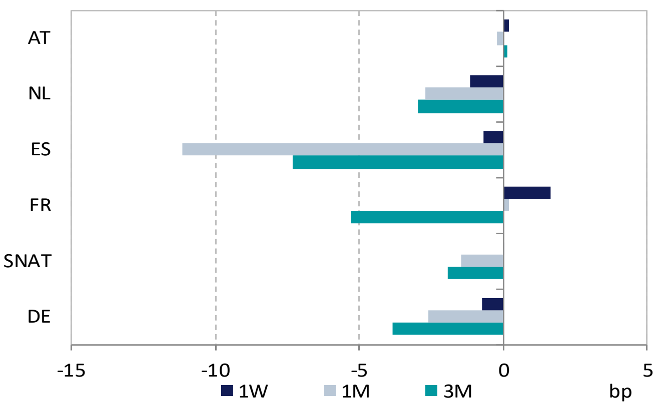
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

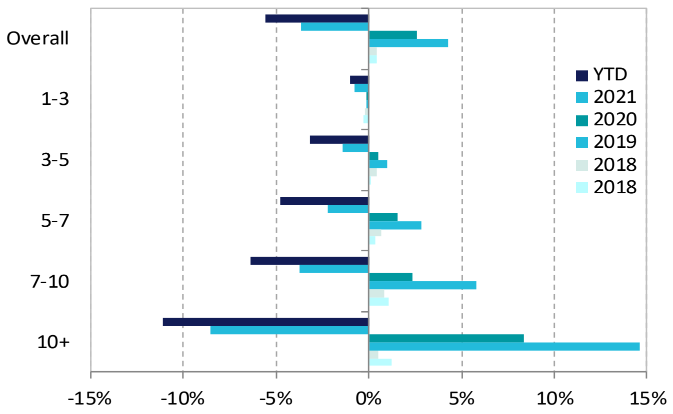
Spread development (last 15 issues)



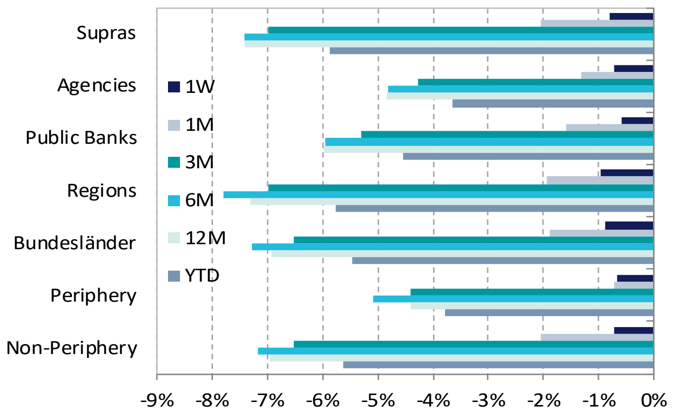
Spread development by country



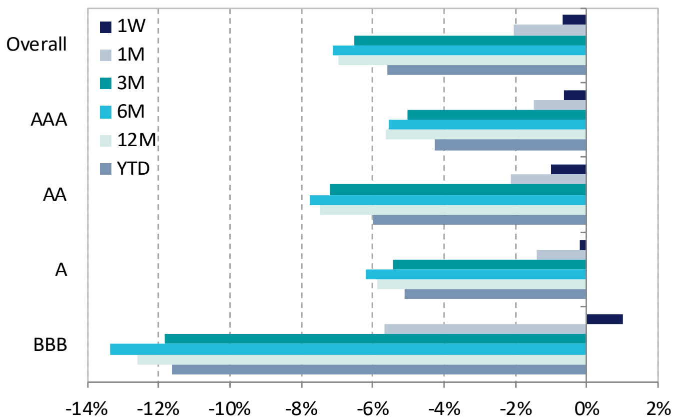
Performance (total return)



Performance (total return) by regions



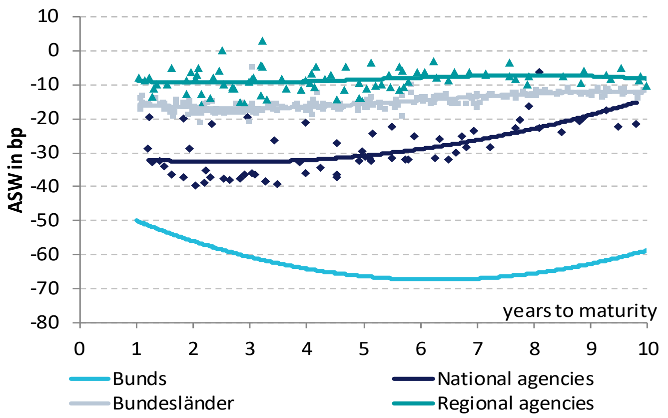
Performance (total return) by rating



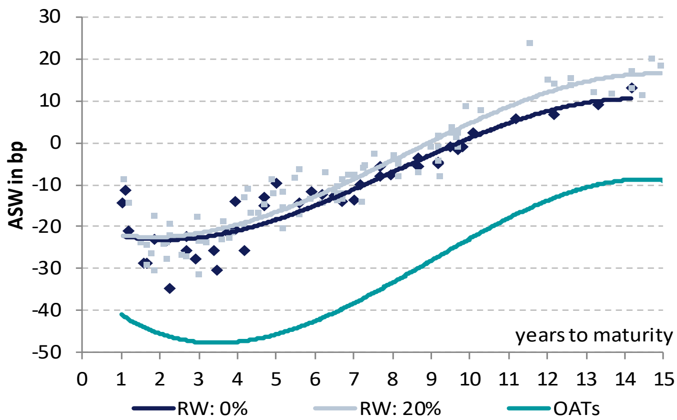
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

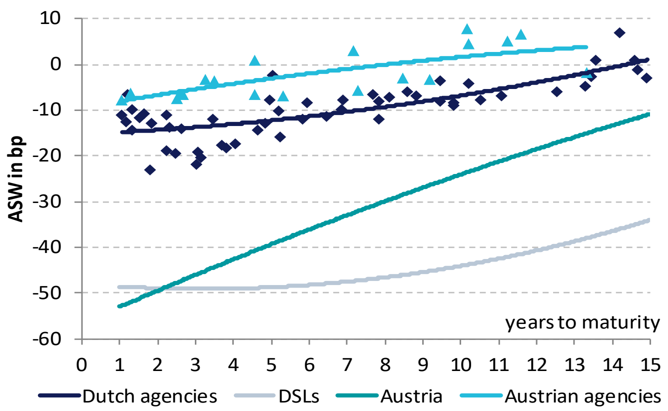
Germany (by segments)



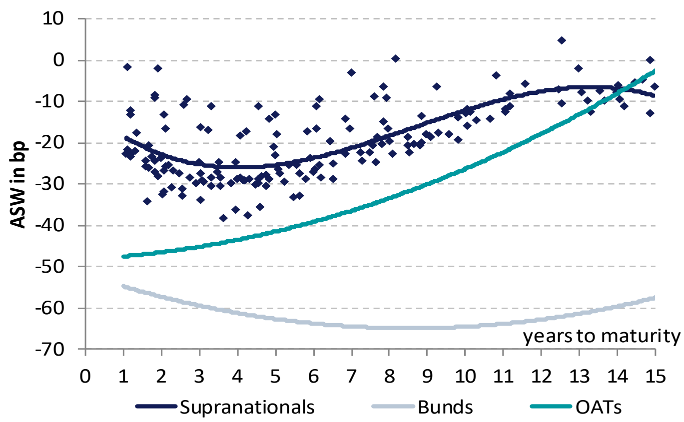
France (by risk weight)



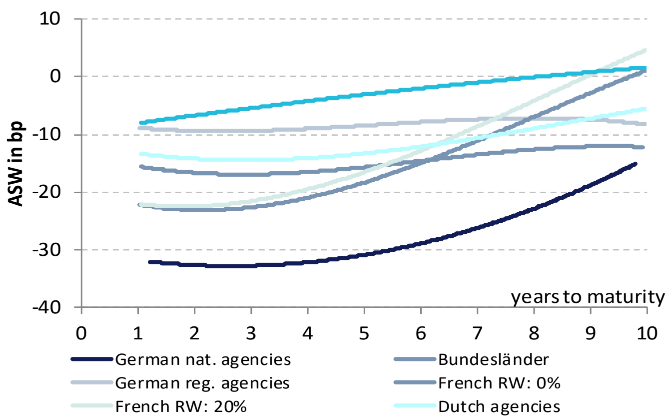
Netherlands & Austria



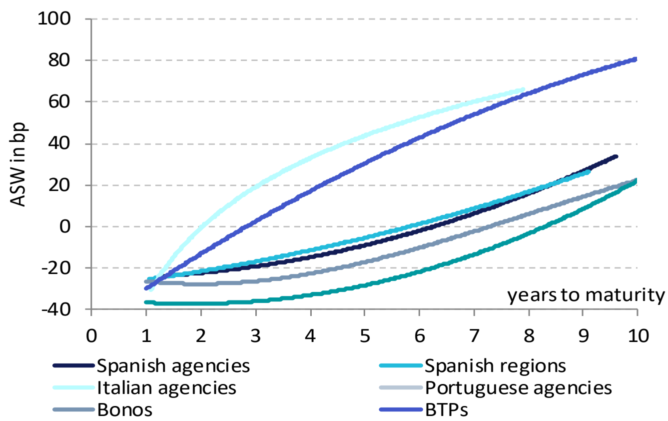
Supranationals



Core



Periphery



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

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
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 Netherlands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody's covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record
40/2021 ♦ 15 December	▪ ECB preview: End of PEPP, booster for APP?! ▪ Our view of the covered bond market in 2022 ▪ SSA Outlook 2022: Public sector caught between ECB & COVID
39/2021 ♦ 08 December	▪ The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations ▪ The Moody's rating approach
38/2021 ♦ 01 December	▪ United Kingdom: Spotlight on the EUR benchmark segment ▪ Beyond Bundeslaender: Region Pays de la Loire (PDLL)
37/2021 ♦ 24 November	▪ Benchmark deals outside the euro: momentum has returned! ▪ Transparency regulations under Section 28 of the Pfandbriefgesetz (PfandBG - German Pfandbrief Act) Q3 2021 ▪ Beyond Bundeslaender: Auvergne-Rhône-Alpes Region (ARA)
36/2021 ♦ 17 November	▪ Primary market forecast 2022: time for a comeback? ▪ Development of the German property market ▪ Beyond Bundeslaender: Spotlight on Belgian regions

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

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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

Trading

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

Origination & Syndicate

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

Sales Wholesale Customers

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

Treasury

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

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Additional information
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Issuer / security	Date	Recommendation	Bond type	Cause