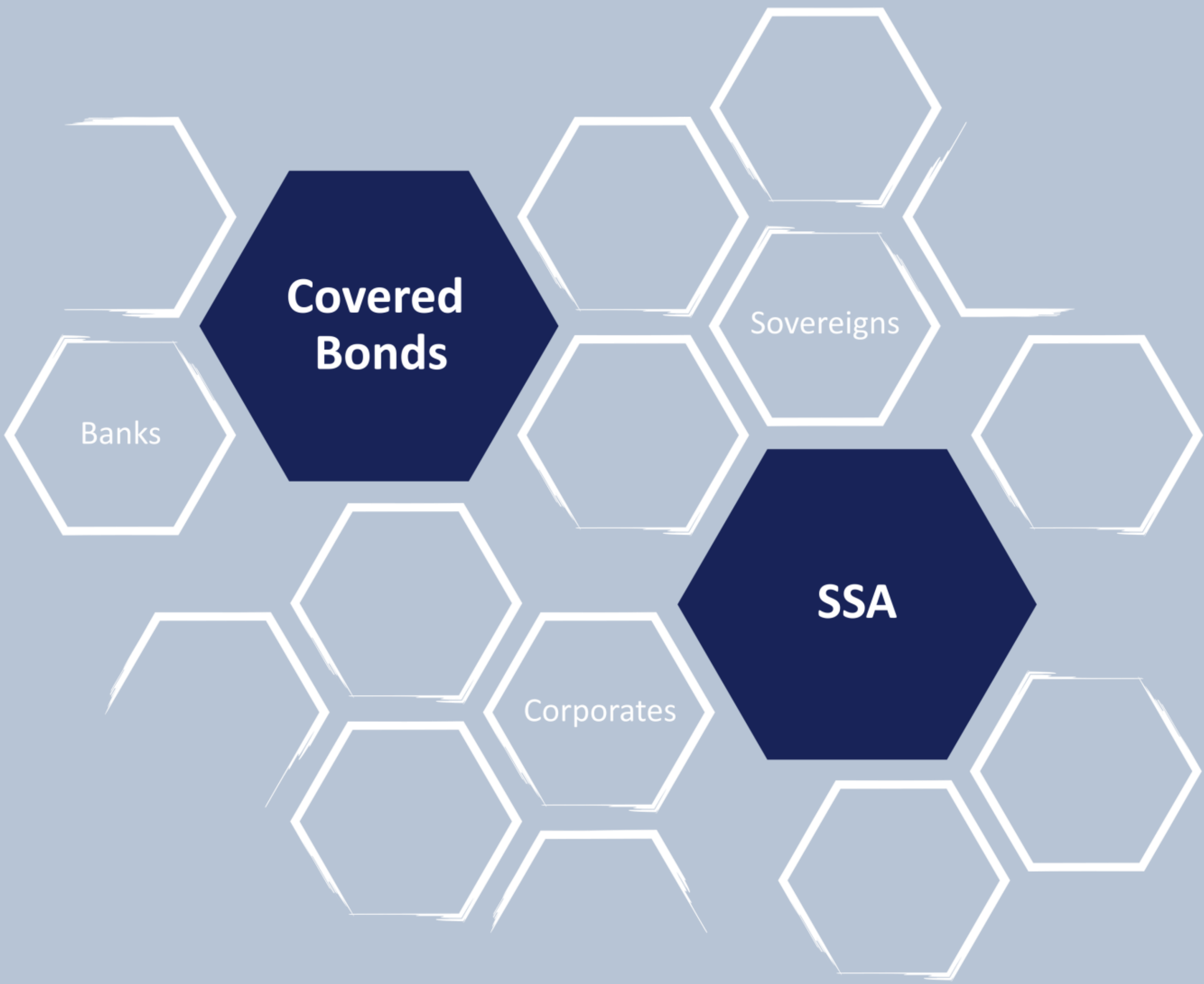


Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

12 January 2022 ♦ 01/2022

Agenda

Floor analysts:

Dr Frederik Kunze
Covered Bonds
frederik.kunze@nordlb.de

Dr Norman Rudschuck, CIIA
SSA/Public Issuers
norman.rudschuck@nordlb.de

NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

Market overview Covered Bonds

Author: Dr Frederik Kunze

Successful start to the year on first day of trading: Aareal places mortgage Pfandbrief and Erste Bank opts for dual tranche deal

The first market appearances of the new year were concentrated on Germany and Austria. Aareal Bank announced a mortgage Pfandbrief (EUR 750m) on 03 January 2022 – the first trading day of the new year – and Erste Bank in Austria published details of its mandate for a dual tranche deal (EUR 750m, 6.5y; EUR 750m, 15y). When the order books opened on 04 January, both issuers benefitted from a fundamentally positive market environment. The two bonds from Erste Bank attracted order books in the amount of EUR 3.7bn overall, with the 2029 maturity subject to hefty demand in particular. While the 15y deal was priced at ms +5bp (guidance: ms +9bp area), the issue spread for the 6.5y deal came in at ms -3bp (guidance: ms +3bp area). The re-offer spreads produced new issue premiums of +1bp (15y) and -1bp (6.5y). The Aareal Deal which followed hot on the heels of the Erste Bank transaction tightened by four basis points against the initial guidance (ms +3bp area) during the marketing phase. With a re-offer spread of ms -1bp, the order books for the 8y deal totalled EUR 1.45bn (70 investors). A positive issue yield (0.195%) generated an investor breakdown that saw the categories of Banks (44%) and Central Banks/OI (34%) claim significant shares alongside real money investors too (Funds: 21%). In terms of the geographical breakdown, accounts from Germany (79%) dominated proceedings, which should come as little surprise. On Wednesday, Commerzbank and BAWAG – likewise from the German-speaking DACH region of Germany, Austria and Switzerland – also issued benchmarks. Both institutes opted for a term to maturity of ten years for their respective deals. These new issuances attracted an impressive volume of orders even at this slightly longer maturity segment. Both the covered bond from Commerzbank (EUR 1bn; re-offer spread: ms -1bp; NIP: -1bp) and the BAWAG benchmark (EUR 500m; re-offer spread: ms +1bp; NIP: +1bp) narrowed by five basis points during the marketing phase and were priced more or less on the curve. In the first trading week of the new year, the volume of newly issued EUR benchmarks totalled EUR 3.75bn. In this context, the high level of investor interest can be seen in the total order books (EUR 9.13bn) and an average new issue premium of zero. This demand behaviour comes not least as a result of the expected maturities in the EUR benchmark segment during the first month of the year. Of the bonds falling due in the amount of EUR 138bn across the full year 2022, a considerable total of just under EUR 34bn is attributable to the month of January. It should come as little surprise to note that the issuance dynamic in the first trading week of the new year was significantly more pronounced than the start of 2021, which was characterised by the uncertainty surrounding the turn of the year 2020/21. Here, too, Aareal stood out as an early active issuer. In fact, its EUR benchmark in the amount of EUR 500m, which was twice oversubscribed, made it the sole bank to approach investors in the first week of trading in 2021.

Second trading week of the year: primary market remains lively, sustained investor demand

After a lively first week of trading that was somewhat curtailed by public holidays (e.g. in the UK and a handful of German Laender), issuance activity unsurprisingly remained at a high level into the second week of the year as well. At the start of the week, UniCredit Bank approached its investors by placing a covered bond worth EUR 1bn at ms flat. Following initial guidance in the area of ms +4bp, tightening of four basis points was also recorded for this deal. The bid-to-cover ratio stood at EUR 2bn. Yesterday, on Tuesday, both Helaba and CAFFIL issued dual tranche deals, with the latter assuming the mantle of "first mover" from France. The Helaba offering took the form of a mortgage Pfandbrief (5.5y; guidance: ms flat area) and public sector Pfandbrief (15y; guidance: ms +6bp area). The mortgage Pfandbrief (EUR 1.25bn) was eventually priced at ms -5bp, while the re-offer spread for the significantly longer dated EUR 1bn covered bond collateralised with public sector assets came in at ms +3bp. The combined order books (EUR 4.9bn) indicate a high level of investor interest overall, although demand for the shorter-dated mortgage Pfandbrief was far greater. The IPTs for the CAFFIL deal were in the area of ms +5bp (EUR 750m WNG; 10y) and in the area of ms +10bp (EUR 500m WNG; 20y) respectively. On the basis of the order books totalling EUR 1.6bn (10y) and EUR 900m (20y), the final re-offer spreads narrowed considerably to ms flat and ms +6bp respectively. Even in just the first two trading days of the second trading week, the transaction was greeted with more than robust demand. The new issue premiums correspondingly reflected the persistently low level on average.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
HELABA	DE	11.01	XS2433240764	15.0y	1.00bn	ms +3bp	- / Aaa / -	-
HELABA	DE	11.01	XS2433126807	5.5y	1.25bn	ms -5bp	- / Aaa / -	-
CAFFIL	FR	11.01	FR0014007PY7	20.0y	0.50bn	ms +6bp	- / Aaa / AA+	-
CAFFIL	FR	11.01	FR0014007PX9	10.0y	0.75bn	ms +0bp	- / Aaa / AA+	-
UniCredit Bank	DE	10.01	DE000HV2AYS3	11.0y	1.00bn	ms +0bp	- / Aaa / -	-
BAWAG	AT	05.01	XS2429205540	10.0y	0.50bn	ms +1bp	- / Aaa / -	-
Commerzbank	DE	05.01	DE000CZ45WY7	10.0y	1.00bn	ms -1bp	- / Aaa / -	-
Erste Group Bank	AT	04.01	AT0000A2UXN9	15.0y	0.75bn	ms +5bp	- / Aaa / -	-
Erste Group Bank	AT	04.01	AT0000A2UXM1	6.5y	0.75bn	ms -1bp	- / Aaa / -	-
Aareal Bank	DE	04.01	DE000AAR0314	8.0y	0.75bn	ms -1bp	- / Aaa / -	-

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

Secondary market: new issuances performing well, less demand for longer maturities

On the secondary market, newly issued EUR benchmarks have performed well overall. In this context, we also believe that it is important to note that EUR swap rates have recently risen sharply in the maturity ranges of particular relevance to covered bonds. One result of this is a return to yields well above the zero line, which is ultimately also of importance to investors. Market movements can be seen as a reaction to renewed uncertainty in connection with the further course of the COVID-19 pandemic, but also in relation to potential measures from the ECB to counteract inflation. Not least due to the nature of the current yield curve, we are sticking to our assessment that demand has tailed off at the very long end in particular, although supply here is likely to remain limited anyway. This is also due to the fact that more attractive returns can now be achieved at the shorter end and in medium maturities too.

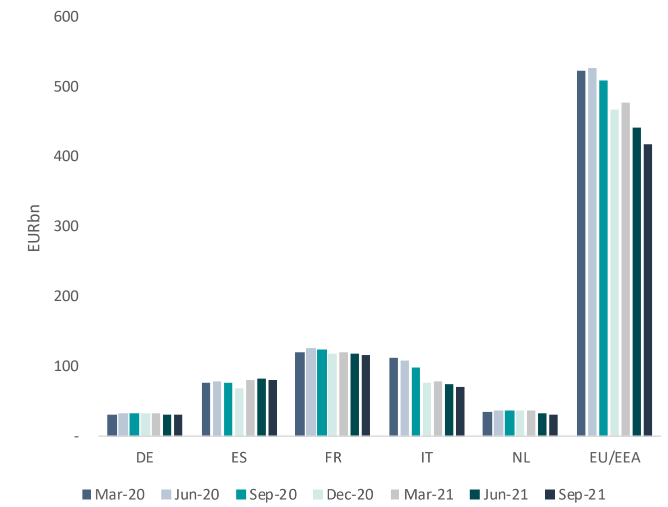
Primary market away from the euro: National Australia Bank issues first GBP benchmark, Yorkshire BS opts for GBP social covered bond, CIBC opens up USD segment

Away from the EUR benchmark segment, National Australia Bank (NAB) recorded the first activity of the year in the GBP covered bond market. Following a period of absence lasting two years, NAB kicked off the marketing phase for its soft bullet benchmark (4y) in the area of SONIA +30bp. The deal was eventually issued at SONIA +27bp with a volume of GBP 1.5bn. We regard Australia as a jurisdiction where the issuers regularly turn to the FX segment for covered financing operations. Yorkshire Building Society (YBS) also opted for a GBP benchmark, which was issued in the form of a social covered bond on the basis of its Social Financing Framework. The covered bond worth GBP 500m (WNG; 5y) also started out the marketing phase in the area of SONIA +30bp, while the re-offer spread was eventually fixed at SONIA +27bp. YBS placed an inaugural social covered bond in EUR benchmark format (YBS 0.01 11/16/28) in November 2021. In so doing, it became the first UK issuer to be active in the ESG segment here at the same time. The first USD benchmark in 2022 was placed by the Canadian Imperial Bank of Commerce (CIBC), which successfully issued a deal in the amount of USD 2.5bn at SOFR +48bp.

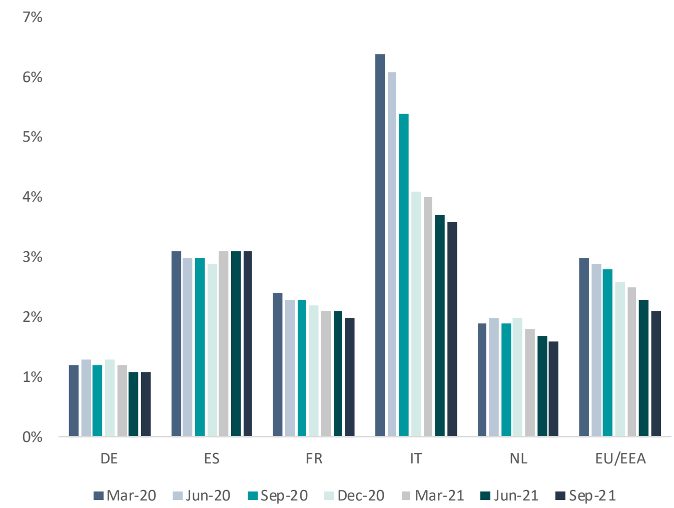
Financials: EBA Risk Dashboard Q3/2021 indicates robust fundamental data

At the start of the new year, the European Banking Authority (EBA) promptly published its data on asset quality in the European banking sector (cf. press release). The data now also includes the facts and figures pertaining to the third quarter of 2021. As has already been the case in previous publications, a further improvement in asset quality can be interpreted from the EBA statistics overall. This is evidently not least due to NPL declines in both absolute and relative terms. Not entirely independently of this, the capital ratios of banks also remain above the regulatory minimums. Nevertheless, differences between individual regions and sectors must continue to be taken into account to produce a differentiated evaluation of the data. For example, a sectoral breakdown reveals that NPLs remain at a high level, although the trend here is in decline. At the same time, the EBA points out that some uncertainties need to be taken into account with regard to loans benefiting from payment holidays and/or public guarantee programmes, and in this context also focuses on current developments such as the course of the pandemic in particular. In terms of liquidity and meeting LCR requirements, the ECB data still produces a robust picture of the situation. Despite the fact that the informative value of the data must be contextualised by taking the reporting date into account, the current risk dashboard confirms that the EBA-relevant covered bond market has not suffered any directly negative impact arising from the coronavirus crisis in terms of asset quality. For example, in this sense issuers are not systematically running the risk of downgrades, which also matches up with the outlooks published by the rating agencies. Deteriorating quality of bank assets, the odd case of which can certainly be lamented, does not tend to adversely affect cover pools over the long term due to the legal requirements for covered bonds alone. In our opinion, this basic view of things can also be extrapolated to other regions (e.g. APAC, UK and Canada). However, one notable drawback remains the funding side. Nevertheless, we interpret it as a positive signal that at least 25% of the institutions surveyed by the EBA also intend to make use of covered bonds for refinancing over a period of twelve months. We would even go as far as saying that if this survey were to be conducted today, this value would actually be significantly higher.

NPL trend for selected countries (EUR bn)



NPL trend for selected countries (%)



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

Announcement: NORD/LB Markets "Prognosetag" on 19 January 2022 on the topic of "The return of inflation – here to stay?"

For several years now, the NORD/LB "Prognosetag" has been a firmly established date for your diaries at the start of a new year. It is our pleasure to once again cordially invite you to our Markets client event on 19 January 2022. The event will be held in German language. Together with our guests, we will be tackling the focus topic of inflation during the event, which will once again take place in digital format. NORD/LB Chief Economist Christian Lips will present the fundamental and market forecasts of NORD/LB Research for 2022. Following this, Prof Dr Jürgen Stark, former member of the Executive Board of the European Central Bank (ECB), will discuss crucial aspects of inflation developments. In so doing, he will touch upon structural framework conditions in addition to shedding light upon the international context of inflation and monetary policy, among other things. A panel discussion will then round off this online event. In addition to the two speakers named above, we have also successfully secured the services of additional capital markets experts in the form of Volker Pätzold (Head of Asset Management at VGH), Prof Dr Beyerle (Catella Real Estate AG) and Martin Hartmann (NORD/LB Head of Markets) for the panel discussion, which promises to be an interesting, multi-faceted affair. Participants will have the opportunity to actively contribute by asking questions throughout the event. If you are interested in taking part in this event, or should you have any questions, please get in touch with Jan Dröge by email at jan.droege@nordlb.de or by phone on +49511 – 361 6889.

Market overview SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

Outlook 2022

In the last issue of 2021, we presented our SSA outlook for 2022. In the SSA segment, this outlook is determined to a large extent by the COVID measures implemented by public issuers and by monetary policy adjustments on the part of the ECB. We see these as important for 2022 for many reasons and therefore especially for the yield and spread levels. We would refer our readers once again to the relevant information regarding the ECB decision, details of which can be found in our NORD/LB Fixed Income Special. A brief summary: the PEPP will be terminated at the end of Q1 2022 (based on our calculations, we do not expect the full amount to be exhausted); PEPP reinvestments will continue until the end of 2024; the APP will be doubled to EUR 40bn per month in Q2 2022, then be reduced to EUR 30bn in Q3 and come back to its present monthly volume of EUR 20bn in Q4.

Selected German funding figures for 2022

The year is only just beginning so it is all the more worthwhile to take a look at the projected funding figures which are available so far. After another exceptionally successful year in 2021 with a record funding volume of EUR 82bn carried out by KfW through 211 transactions in 15 different currencies, KfW is now projecting a funding volume of EUR 80-85bn in 2022. The development bank raised the equivalent of over EUR 16bn (just under 20%) from 37 green transactions in 13 different currencies through international capital markets. KfW has indicated that “this is twice as much as the previous year and includes record issues in EUR as well as USD and AUD”. It also plans to raise at least EUR 10bn from green issues in 2022. The bulk of the funds to be raised will consist of benchmark bonds in EUR and USD, which would be expected to reach a volume of EUR (or USD) 3-5bn on first issuance. Under the plan, selected outstanding EUR-benchmark bonds would be tapped up to a volume of EUR 7bn. Landwirtschaftliche Rentenbank expects a funding volume of EUR 11bn in 2022 with maturities of over two years. This would be marginally more than in 2021 when the average maturity of issues fell to 6.5 years (2020: 7.3 years). The bank is planning to raise up to 50% of its medium and long-term funding volume in EUR and USD. “We could envisage Rentenbank becoming involved in further government programmes aimed at transforming the agricultural sector in the next few years. Our projections factor in the greater funding requirements that this would bring about”, according to Nikola Steinbock, Rentenbank Management Board spokeswoman since 01 January 2022. In 2021, Rentenbank raised funds in seven currencies. A total of 25% was made up of USD issues (2020: 47%); EUR-denominated issues rose from 42% to 62%. The share of GBP was almost unchanged at 4% (5%). We expect NRW.BANK’s funding volume in 2022 to be similar to 2021: EUR 11-12bn. Interestingly, the volume was split between EUR (32%), EUR Green (8%) and EUR Social (13%) according to an investor presentation. The duration across all currencies was given as 5.4 years (based on EUR 11.4bn).

Supranationals major players in the market

The German agencies were mainly joined by four big Luxembourg institutions, namely the EU and EIB along with the ESM and EFSF: the respective funding targets of the two latter institutions – EUR 8.0bn (ESM) and EUR 19.5bn (EFSF) – have been set for months. Both issuers have even already announced their targets for 2023 at EUR 8.0bn and EUR 20.0bn respectively. In the past, the December Newsletter always gave us a timeframe for the first three months along with specific calendar weeks and a breakdown of volumes for each quarter. This will no longer be the case for the ESM and EFSF from 2022 onwards. In the case of the ESM, we expect a negative net supply of around EUR -4bn this year. In contrast, EFSF is facing maturities amounting to EUR 17.5bn or the equivalent of a positive net supply of EUR 2bn. We do not expect any change of plans whatsoever in this case either. In addition, we expect the ESM to continue to issue at least one USD-denominated bond per annum and we are anticipating a social bond. The EU more or less undertakes the detailed planning of the various funding timeframes for the ESM/EFSF and is a good bridge for the next topic: we expect issuance of EUR 120-150bn in 2022. This would be the equivalent of EUR 2.5-3bn per calendar week. As a reminder: in 2021, the EU increasingly issued social bonds in the context of the SURE programme (EUR 50.1bn); 30% of the NGEU programme consists of green bonds. Moreover, the EU has to refinance or extend a total of EUR 5.5bn on a "regular" basis in H1 (MFA, EFSM and BoP). On top of that, there is the funding for the NextGenerationEU fund. This was set surprisingly low at EUR 50bn for H1 2022. The second half is likely to be more attractive in this respect; after all, we expect a minimum of EUR 70bn and the figure could even go as high as EUR 100bn, in our view. The EIB puts its funding requirement for 2022 at EUR 60-70bn. According to a press release, the EIB's Management Committee approved raising up to EUR 70bn at its December meeting, which means that the bank still has a certain degree of headroom. In 2022, the EIB is likely to repay maturities totalling EUR 48.7bn, which would generate a positive net supply of at least EUR 12bn, in other words significantly more than in the last two years – and could even amount to EUR 22bn, if the top end were tested.

Long-term funding plan incl. 2023 (EUR bn)

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

Time windows for...

…ESM Bill auctions (3M / 12M / 6M)

January	Tues 04	Tues 11	Tues 18	**April**	Tues 05	Tues 12	Tues 19
February	Tues 01	Tues 08	Tues 15	**May**	Tues 03	Tues 10	Tues 17
March	Tues 01	Tues 08	Tues 15	**June**	Tues 07	Tues 14	Tues 21

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

Time windows for...

…EU bond issuances

CW 06	07–11 February	**CW 19**	09–13 May
CW 12	21–25 March	**CW 25**	20–24 June
CW 14	04–08 April		

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

German government published plans shortly after our last publication

Even though the German government as an issuer is not the object of detailed analysis by our Floor Research, its curve is nevertheless the reference point for a large number of our institutional clients. For this reason, we nevertheless propose to take a quick look at Germany's supply: in 2022, for the purpose of financing the federal budget and special funds, the German government is planning to issue bonds amounting to around EUR 410bn through auctions. Of this, EUR 195bn will be raised through the capital market and EUR 208bn through the money market. In addition, the government is planning to issue inflation-linked Bunds of EUR 6-8bn through auctions. Apart from auctions, there are also plans to issue Bunds via four syndicates; the respective issue volume will be set during the course of the issuing process. According to a press release, like last year, the relatively high issue volume (projection in 2021: EUR 469-471bn) can be attributed especially to the effects of COVID-19, which are having a major impact on federal revenues and spending, and on the special funds. The German government's co-financed special funds include the economic stabilisation fund (WSF) set up in 2020 to tackle the economic impact of the pandemic and the Financial Market Stabilisation Fund (FMS) established in 2008 in the wake of the financial crisis. Both funds are administered by the German Finance Agency. And here we come full circle in relation to our coverage of other agencies since KfW taps into the WSF and the winding-up institutions are guaranteed by the FMS. Issuance plans for 2022 envisage a similar total volume for Green Bunds to the volume in 2021 (EUR 12.5bn). In Q3 2022, the German government is planning a syndicated issue of a new green Bund maturing in October 2027. As a conventional twin for this green bond, there are plans for a Bund maturing in October 2027, which would be issued on 28 June 2022. In 2022, moreover, there are plans for a total of four taps of the three outstanding ten and 30-year green bonds. The three taps in both of the two ten-year green bonds will be carried out via auction to the tune of EUR 1.5bn respectively. A syndicated issue is planned for the 30-year green Bund; the relevant issue volume will be set during the process. A peculiarity of the German market: the issue of green Bunds is to be accompanied by the simultaneous tap by the same amount of its conventional twin security. The increase in the volume outstanding applies to the German government's own account.

Amendment of the ESM Treaty having an impact on German Bunds

As reported last year, the ESM Treaty has been amended. The key words in this respect are Collective Action Clauses (CACs) and the switch from double-limb to single-limb CAC issuance. The introduction of single-limb Collective Action Clauses for all Eurozone member state issuers will now mean a gradual change in issue terms and conditions for Bund securities. Details can be found in ESDM publications (Economic and Financial sub-committee on EU sovereign debt market). As a result of the changes, standard maturity dates for Bunds will now be adjusted from the 15th to 16th of the months of February, May, August and November. The new issue terms and conditions will apply for new issues from the first day of the month after which the amendment of the ESM Treaty comes into force. The precise maturity dates of new Bunds will be announced with the relevant quarterly update of the issue calendar.

Latest press releases on public-sector debt in Germany

There was a further rise in Germany's public debt in Q3 2021: the debt owed by the overall public budget (Federation, Laender, municipalities and associations of municipalities along with social security funds including all extra budgets) to the non-public sector (credit institutions along with the remaining domestic and non-domestic sector, e.g. private businesses in Germany and abroad) amounted to EUR 2,284.2bn at the end of Q3 2021. This equates to per capita debt of EUR 27,477. The last time the level of debt was at a similarly high level was at the end of 2012 – in other words way prior to the pandemic – when it stood at EUR 2,068.3bn. Until the outbreak of COVID-19, public debt had been decreasing every year. Based on provisional results, the Federal Statistical Office (Destatis) also reported an increase in public debt by a further 5.1% or EUR 111.3bn at the end of Q3 against the end of 2020. The increase mostly reflects funds raised to overcome the COVID-19 crisis. The debt rose by 1.4% or EUR 32.3bn against Q2. According to Destatis, apart from social security funds, all levels of the public budget had a higher level of debt at the end of Q3 than at the end of 2020. The sharpest increase in debt during this period was in the Bund’s debt; it rose by +7.2% or EUR 101.4bn to EUR 1,504.9bn. At the end of Q3, the Laender were indebted by EUR 645.2bn − an increase of +1.4% or EUR 9.2bn against the end of 2020. Debt rose in almost all the Laender. Bavaria saw the biggest percentage increase (+12.4%), followed by Saxony (+11.0%) and North Rhine-Westphalia (+6.0%). In most Laender, the higher level of debt was mostly driven by the COVID-19 crisis. In Saxony, the increase mostly reflected borrowing for the "covid-busting fund" along with a rescheduling of the debt. According to a press release, the increase in NRW was brought about by an increase in the securities debt of the Land for the "special fund for financing all direct and indirect consequences of the coronavirus crisis" and of the Erste Abwicklungsanstalt (EAA). This is a net effect of regular capital market transactions from the repayment of securitised liabilities and new issues. Bremen saw the strongest percentage fall in debt (-12.5%). It mainly reflected lower borrowing in relation to year-end 2020 for the purpose of providing cash collateral for derivative transactions. The debt in Hesse fell by -2.7% against the end of 2020 and by -2.1% in Saarland. There was an increase of +0.5% or EUR 0.7bn to EUR 134.1bn in the debt of municipalities and associations of municipalities in Q3 against year-end 2020, i.e. only a marginal increase compared with the Bund and Laender. However, there were regional variations in the trend: according to Destatis data, there was an increase in the debt of municipalities and associations of municipalities, especially in Baden-Wuerttemberg (+7.6%), Schleswig-Holstein (+5.8%) and Hesse (+2.5%). In contrast, there was a reduction in debt, notably in Saarland (-7.9%), Brandenburg (-5.0%) and Saxony (-4.7%). The decline in the debt of municipalities and associations of municipalities in Saarland mainly reflects the fact that the “Special Saarland Pact Fund” took over EUR 546.4m of the short-term lending of the municipalities and associations of municipalities from 01 January 2020. For your information: in Q3 2021, the social security fund posted a debt of EUR 41m, which represents a slight reduction of EUR 3m against year-end 2020.

Primary market

Same procedure as every year: on 29 December of last year, Lower Saxony mandated for a ten-year bond to open the primary market on the first trading day of 2022 in Europe. The issue was immediately priced on 03 January. Terms for the ten-year bond were given as ms -8bp (EUR 1bn). This was seven basis points less than just a year earlier. As was the case at the beginning of 2021, the spread tightened by 1bp against the guidance during the pricing process; there were well-filled order books. KFW opted for the same maturity, but chose a much bigger bond − EUR 5bn for ten years at ms -15bp. Precisely one year ago, KFW was also second issuer that year (together with NRW) − with the same size and maturity back then, but at ms -9bp. This year, there was an impressive order book of EUR 33.5bn; this time around, the bond spread was able to tighten by as much as three basis points against the guidance (ms -12bp area). Last year, the deal was "only" oversubscribed by roughly 4x at EUR 19.5bn. The first ESG bond this year was also a success: The Dutch issuer BNG raised EUR 1.75bn from a sustainability bond at ms -3bp. These three bonds alone (KFW, NIESA, BNG) perfectly show the relative pricing. The first dual tranche of the year was issued by EFSF, which opted for 8y (EUR 3.0bn) and 31y maturities (EUR 2.5bn). The tranches attracted orders of EUR 19bn and EUR 11bn respectively. Both deals tightened against guidance – the shorter maturity by one basis point; the ultra-long bond by as many as two basis points. From next week, the bond will also be eligible for purchase by the Eurosystem; at present, the term to maturity is still a few days in excess of 31 years and therefore fails to meet the criteria to be eligible. Further supranationals soon followed: The World Bank in the guise of the IDA along with the EIB with an EARN transaction. The EIB opted for a ten-year bond; its pricing at ms -14bp was three basis points lower than a year ago. The issue attracted orders of EUR 26bn in 2022; in 2021, the figure in the first week of trading (also for a 10y EARN) was still as much as EUR 33bn. The International Development Association as an arm of the World Bank chose a sustainable format and a 20-year maturity. The spread was set at ms +14bp with books at EUR 3.1bn and an oversubscription ratio of just over 1.5x. Moreover, the EIB still had a tap of a climate awareness bond (CAB) up its sleeve: EUR 500m (maturity 2027) at ms -25bp. The rest were interesting mandates for the very near future: NWB (10y; SDB housing), CADES (10y, social), COE (10y, WNG) and the "Methuselah experts" from Düsseldorf: NRW, 100y. Last year, their book stood at EUR 3.25bn for their 100-year bond at the beginning of January (EUR 2bn, ms +111bp).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
EIB	SNAT	10.01.	XS2433363509	10.0y	4.00bn	ms -14bp	AAA / Aaa / AAA	-
IDAWBG	SNAT	10.01.	XS2432629504	20.0y	2.00bn	ms +14bp	- / Aaa / AAA	X
EFSF	SNAT	10.01.	EU000A2SCAA6	31.0y	2.50bn	ms +17bp	AA / Aa1 / AA	-
EFSF	SNAT	10.01.	EU000A1G0EP6	8.2y	3.00bn	ms -14bp	AA / Aa1 / AA	-
BNG	NL	04.01.	XS2430965538	10.0y	1.75bn	ms -3bp	AAA / Aaa / AAA	X
KFW	DE	03.01.	DE000A3E5XN1	10.0y	5.00bn	ms -15bp	- / Aaa / AAA	-
NIESA	DE	03.01.	DE000A3MQNG3	10.0y	1.00bn	ms -8bp	AAA / - / -	-

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

Covered Bonds
Covered Bonds Annual Review 2021

Author: Dr Frederik Kunze

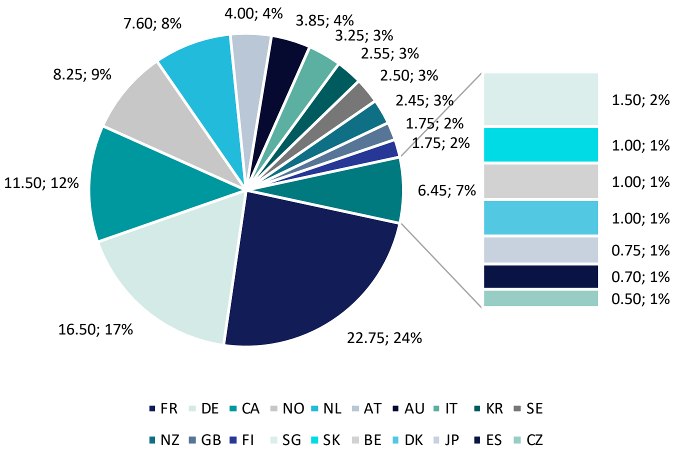
A review of 2021 – (temporary) adjustment to new conditions?

As has become something of a tradition, in the first issue of the year of our weekly publication, we provide a review of the previous year. Several extraordinary factors occurred in 2021, which again arose in close connection with the second and third round effects of the coronavirus crisis. First and foremost, monetary policy once again impacted on the EUR benchmark bond segment. Conversely, fundamental factors continued to be less decisive in terms of their impact on the market. In our view, this is partly the result of the pleasing fact that negative implications for issuers and/or cover pools, feared at times, have not materialised. Alternative funding options for financial institutions – in addition to central bank liquidity, the senior unsecured segment should certainly be mentioned in this regard – also left their mark in 2021. Further dynamic growth in the ESG segment and amendments to legislation in the context of the EU covered bond directive meant that steady ongoing development was also observed in other areas of the covered bond segment, which is set to continue well beyond the (temporary) change in conditions resulting from the pandemic.

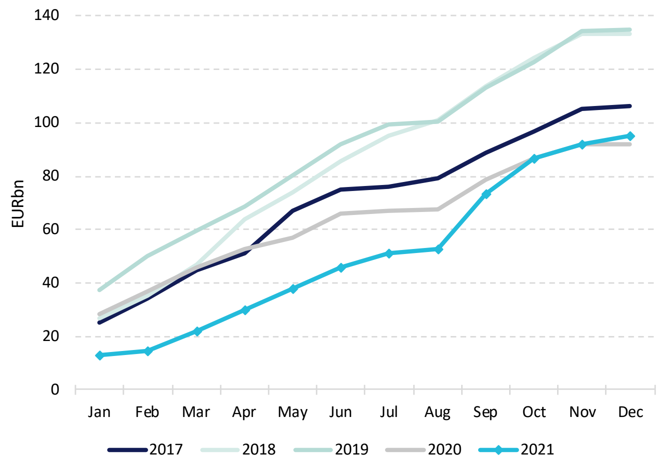
Fundamental perspective – very limited fallout in relation to COVID-19 for covered bonds

We also want to start our review of 2021 by discussing the fundamental influence of the situation caused by the pandemic on the covered bond segment. After all, when the coronavirus crisis began, it certainly seemed like a possible scenario that the negative implications of the outbreak of COVID-19 in the form of unemployment, NPLs and a deterioration in asset quality would also be reflected in the covered bond market. In the course of 2021 and as data points were successively presented (including regarding regulatory ratios on the liquidity position and capitalisation on the part of financial institutions), the scenario of a sustained worsening of asset quality became less and less probable, in our opinion. However, it should certainly be mentioned that the extensive support measures in terms of monetary policy, from the government and/or regulatory authorities made a considerable contribution when it came to tide over the direct influences of the crisis. On balance, covered bonds with their dual recourse structure proved their worth as a crisis instrument for funding purposes. Indeed, we also assume that the comprehensive tapering off of crisis-related support measures is unlikely to have a sustained negative impact on the asset quality of covered bond programmes. This assumption concurs with the outlook of the renowned rating agencies, which expect a high level of stability in ratings for the covered bond segment during 2022. As we explain in the following, this rather neutral view regarding the fundamental influence of COVID-19 differs substantially from the technical market analysis (i.e. the interrelationship between supply and demand).

Issuance volume – EUR BMK in 2021 (EUR 95.2bn)



EUR BMK – issuance pattern versus previous years



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

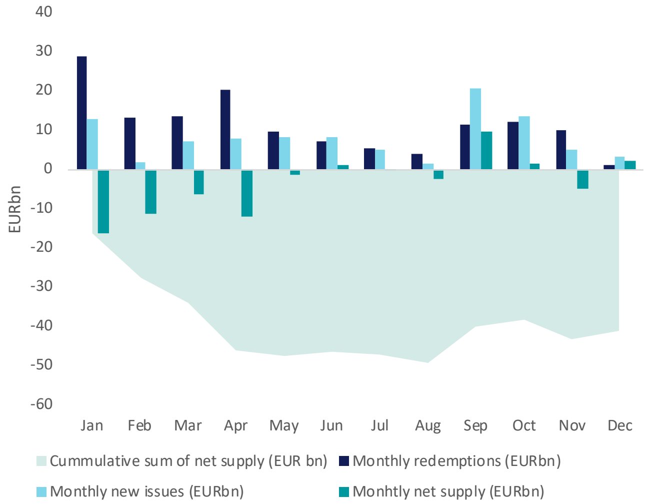
Issuance volume in 2021 comes in at EUR 95.2bn after all

Generally, it can be stated that 2021 was marked by a state of unrest driven by various waves of the pandemic, which was also evident in the financial and capital markets. These conditions repeatedly determined the pace of the primary market in the EUR benchmark bond segment, with an extremely weak start to the year giving way to a surprisingly strong second half of 2021. In addition to general uncertainty, alternative funding options – which are by no means to be seen independently of the coronavirus – were co-determinants in terms of primary market developments. Ahead of the summer lull, we certainly did not expect an issuance volume of EUR 95.2bn and consider developments in September, October and November to have been a pleasant surprise. France and Germany, with a volume of EUR 22.75bn and EUR 16.5bn respectively, were the highest-issuing jurisdictions. Furthermore, developments in Canada (issuance volume: EUR 11.50bn) proved surprisingly dynamic. Although less significant in absolute terms, the APAC jurisdictions of South Korea (EUR 2.55bn), Australia (EUR 3.85bn) and New Zealand (EUR 2.45bn) are also to be mentioned, given the relatively dynamic trend there.

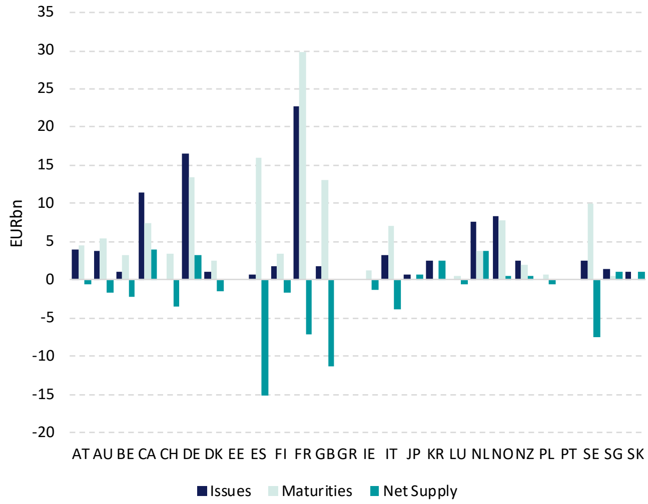
Negative net supply of almost EUR 41.2bn in 2021

Despite the dynamic trend in the second half of the year, 2021 saw a further contraction in the EUR benchmark bond segment. The issuance volume was offset by bonds maturing worth EUR 136.4bn in total, which resulted in negative net supply of EUR 41.8bn. This circumstance supported spreads accordingly, as we shall explain below. However, it should be noted that not all jurisdictions shrank to the same (relative) extent. As a matter of fact, Canada (EUR 4bn), the Netherlands (EUR 3.85bn) and Germany (EUR 3.15bn) recorded a markedly positive net supply. In contrast, a sharp contraction was evident in Spain (down by EUR 15.21bn), the UK (EUR 11.35bn), Sweden (EUR 7.5bn) and France (EUR 7.12bn). Against the backdrop of absolute market size, the growth recorded in Germany and the decline in France need to be seen in perspective.

EUR BMK – net supply trend in 2021



EUR BMK – net supply in 2021 by jurisdiction



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

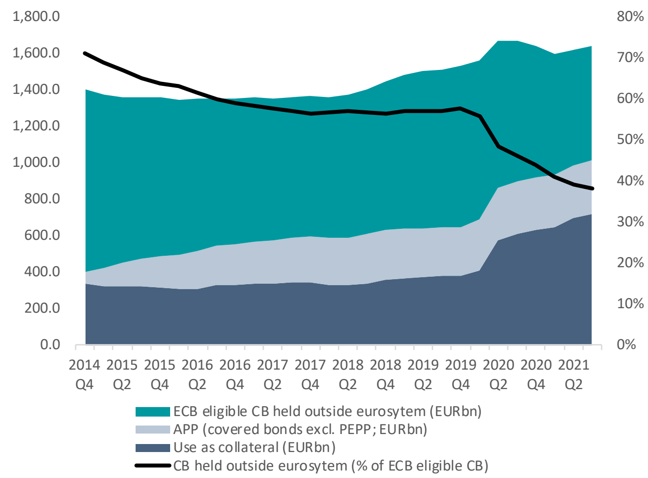
ECB remains determining factor on both the supply and demand side

The ECB's monetary policy, or the Eurosystem, remained the decisive influencing factor on supply and demand in the covered bond segment during 2021 – and therefore ultimately also determined the spread trend. With regard to supply, extraordinarily attractive funding terms in some cases under the TLTRO III tenders once again pushed back public placements during the past twelve months. The volume allotted to the Eurosystem's commercial banks under the TLTRO III tenders amounted to EUR 2,339.3bn, with the four tenders in 2021 accounting for a considerable EUR 589.9bn. Financial institutions in many jurisdictions relied on retained covered bonds to deposit their own issues as collateral under the ECB collateral framework. As a result, the Eurosystem collected the majority of covered bond issues used for the purpose of collateral. At the end of the third quarter of 2021, the value of covered bonds used as collateral rose to a record figure of EUR 717.7bn. On the demand side, central banks in the single currency area also tapped significant shares of the EUR benchmark bond total. At year-end 2021, the volume purchased under CBPP3 totalled almost EUR 300bn (primary market share: 36.4%). Gross purchases in the months from January to December last year amounted to approximately EUR 41.4bn in total (net purchases: EUR 10.8bn). To contextualise the influence of the Eurosystem on the covered bond market (and not just on the EUR benchmark bond segment of this market), an analysis of ECB collateral management data is recommended. As a guideline for the covered bond market, the value stated in this data for covered bonds that, in principle, are considered to be eligible as central bank collateral can be used. As at 30 September 2021, it totalled EUR 1,644.3bn. Comparing this with the covered bonds used as collateral as well as the directly purchased covered bonds, produces an estimate of the covered bond issues "held" outside the Eurosystem. This share decreased significantly in the wake of the coronavirus crisis and the monetary policy response to the crisis, with a continuing downward trend in this share observed for 2021.

ECB – overview of TLTRO III

Type	Settlement	Maturity date	Allotment EUR bn	Outstanding EUR bn
TLTRO III.10	22.12.21	18.12.24	51.97	51.98
TLTRO III.9	29.09.21	25.09.24	97.57	97.57
TLTRO III.8	24.06.21	26.06.24	109.83	109.57
TLTRO III.7	24.03.21	27.03.24	330.5	330.08
TLTRO III.6	16.12.20	20.12.23	50.41	49.26
TLTRO III.5	30.09.20	27.09.23	174.46	161.77
TLTRO III.4	24.06.20	28.06.23	1308.43	1216.79
TLTRO III.3	25.03.20	29.03.23	114.98	95.19
TLTRO III.2	18.12.19	21.12.22	97.72	83.9
TLTRO III.1	25.09.19	28.09.22	3.4	1.96
			∑2,339.3	**∑2,198.1**

ECB – covered bonds in the Eurosystem



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

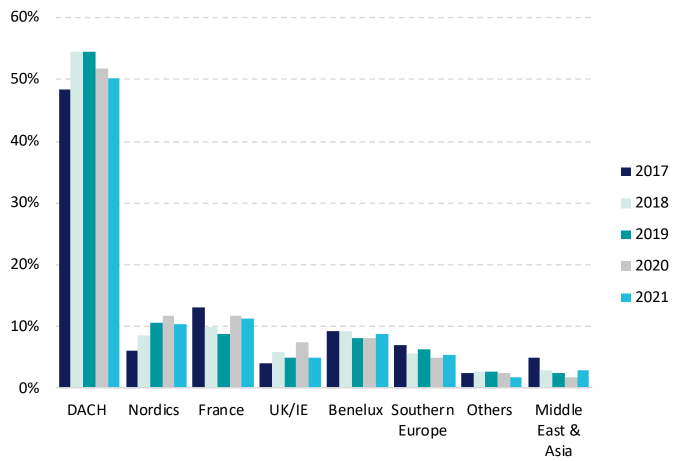
Market activities of new BMK issuers

New issuers cannot reverse this trend, which is largely determined by external conditions. Yet, the presence of first-time issuers in the EUR benchmark bond segment should by no means be downplayed in terms of their long-term importance. It highlights the relevance of covered bond issues in the funding mix of the various financial institutions as well as indicating the increasing systemic importance of covered bonds in the various jurisdictions. From an investor's point of view, this is also to be welcomed. As early as January 2021, two first-time BMK issuers approached investors. Czech Komercni Banka placed its first EUR benchmark bond issue. The deal worth EUR 500m (5.0y) also represented the only covered bond issue from the Czech Republic in the EUR benchmark bond segment. The group of issuers from South Korea was expanded, with the new addition of Hana Bank. The financial institution also selected a maturity of five years for its issue of social covered bonds worth EUR 500m. At bid-to-cover ratios ≥3, these first two debut bond issues in 2021 were as well received by the market as the first issue of Belgian Argenta Spaarbank worth EUR 500m. The first-time issues in the segment from Canada and Italy at the start of the third quarter of 2021 also hit the mark with investors. For its first EUR benchmark bond issue, HSBC Canada opted for a volume of EUR 750m. The deal was 3.5 times oversubscribed. The bid-to-cover ratio of the EUR benchmark bond issue of Iccrea Banca was slightly higher still. The covered bonds worth EUR 500m boasted an order volume of EUR 2.0bn.

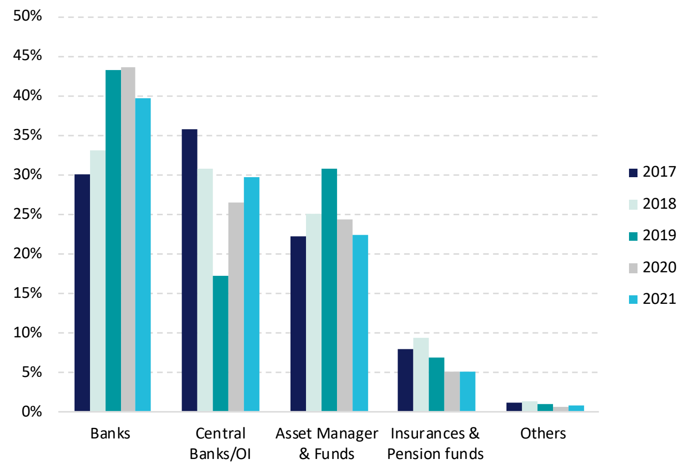
No major changes in the investing community

Overall, it can be stated for 2021 that primary market activities were accompanied by substantial demand, which also went beyond the basic load of the Eurosystem. Accordingly, high oversubscription ratios and low new issue premiums were also observed for non-debut issues. With regard to the distribution of the allotted issuance volume by jurisdiction or by group of investors, no major changes occurred in the past twelve months. For example, the DACH region remained dominant in terms of regional distribution, with a relatively high weighting recorded for the domestic market/home region, depending on the issuing country. In addition, the share of central banks increased, which also did not come as a surprise.

Primary market distribution by investor country



Primary market distribution by investor

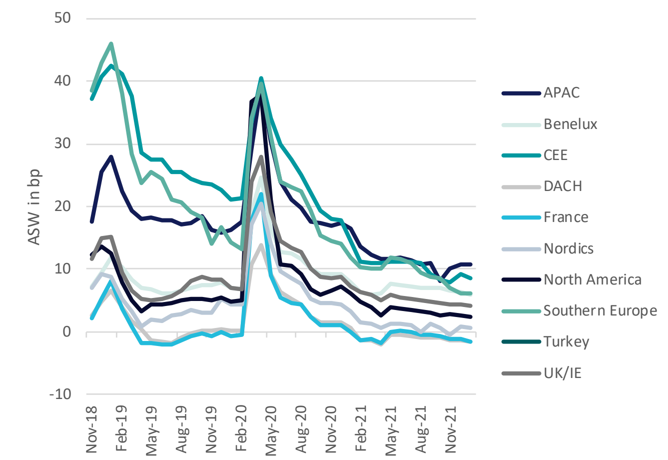


Source: Market data, NORD/LB Markets Strategy & Floor Research

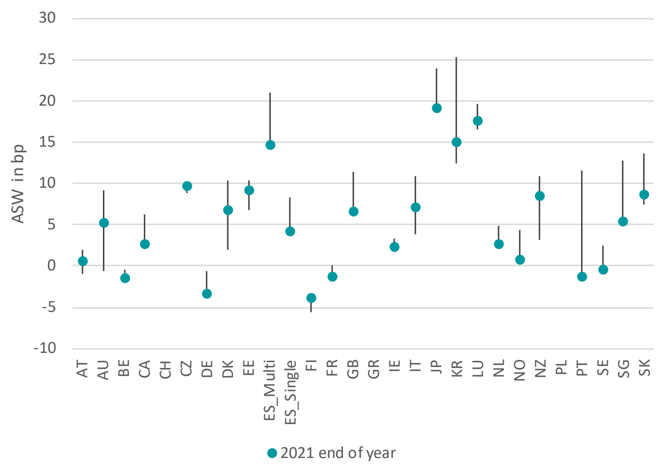
Spread trends in the secondary market

Following 2020, a year marked by pandemic-driven distortions and the relevant spread widening or spread tightening, the past twelve months saw a continuous sideways movement. For selected jurisdictions – e.g. Italy – minor ASW spread tightening was additionally observed. In principle, generic ASW spreads remained within a historically narrow range in 2021. The main explanation for this, in our opinion, is the above-mentioned combination of generally sluggish issuing activity in the course of the year (the key word being negative net supply) and a high level of demand from the Eurosystem. In view of second round effects, spreads outside the eurozone – including in Canada and the APAC region – also remained at low levels.

Trend in ASW spread by region (5Y)



Variation range of spreads by country in 2021 (5Y)

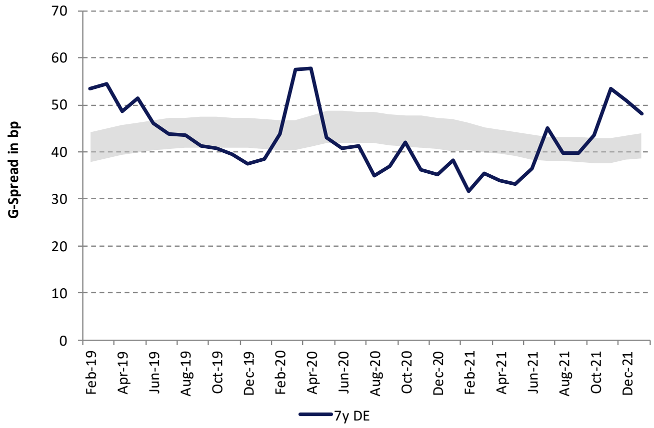


Source: Bloomberg, market data, NORD/LB Markets Strategy & Floor Research

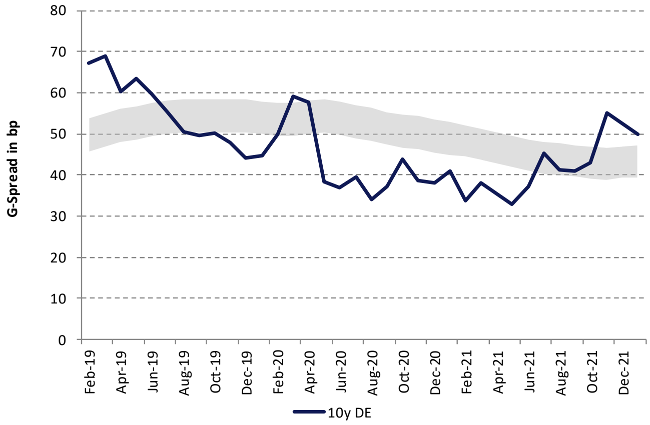
Relative value – Pfandbriefe attractive in relative terms compared with Bunds

While Pfandbrief spreads moved in the narrow range described above during 2021, they became markedly attractive in a relative comparison vs Bunds during the fourth quarter of 2021. However, the sustained increase in the spread difference between Pfandbriefe and Bunds above the long-term average – unlike in the coronavirus of 2020 – was not triggered by a move into crisis mode. The fact that covered bonds were attractive in relative terms (which was also observed in some other jurisdictions) was largely attributable to a widening of the Bund swap spread. This, in turn, was caused by the ECB's monetary policy (APP, PEPP and TLTRO III), demand for HQLA and/or the general availability of collateral. Most recently, the G-spread moved back in the direction of the long-term average or longer-term range.

Spread difference – Pfandbriefe vs Bunds (7Y generic)



Spread difference – Pfandbriefe vs Bunds (10Y generic)

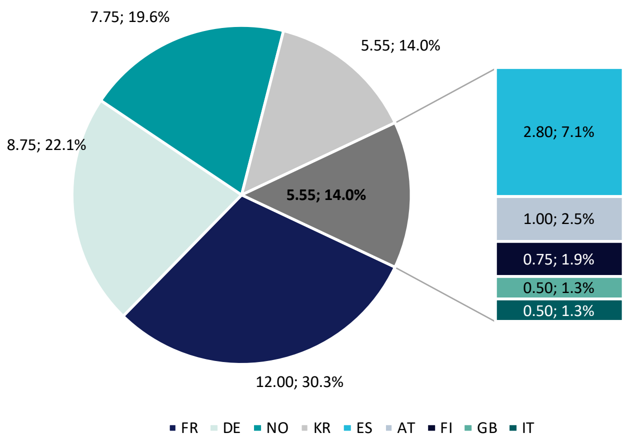


Source: Bloomberg, market data, NORD/LB Markets Strategy & Floor Research

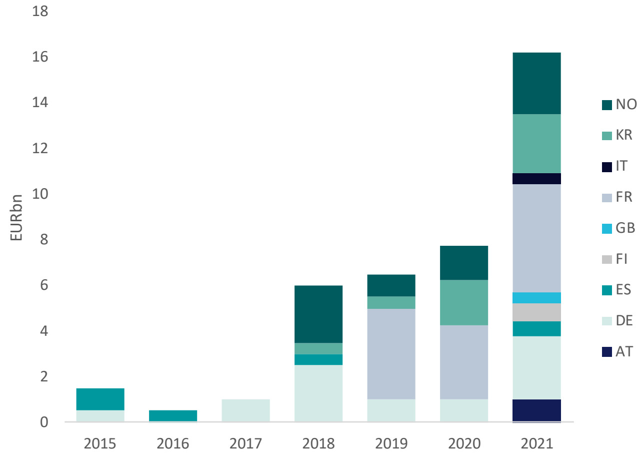
ESG segment remained on course for growth in 2021

The ESG segment remained on course for growth again in 2021. The community of issuers and/or jurisdictions with EUR benchmarks bonds outstanding in the ESG format again rose sharply. In the course of the year, eight green issuers joined the community. Eika Boligkreditt (NO), NORD/LB (DE), UniCredit (DE) and ING DiBa (DE) boosted the number of financial institutions with activities in green format in Norway and Germany while Credit Agricole Italia (IT), OP Mortgage Bank (FI), BAWAG (AT) and Kookmin Bank (KR) were responsible for the first green covered bond issues in their respective home markets. For Italy and Finland, the deals also represented the first ESG benchmark bond issues. A UK issuer was also present in the ESG segment with a debut issue. Yorkshire Building Society's first-time issue comprised social covered bonds. The first ESG deal from Austria– before the BAWAG green covered bonds – was Hypo Tirol Bank's issue of social bonds. Credit Agricole Home Loan SFH (FR) and the above-mentioned Hana Bank (KR) expanded the issuer community responsible for social bond issues in benchmark format with their social bonds. Starting from what remains a relatively low basis, the ESG segment's dynamic growth has continued. The issuance volume totalled EUR 16.25bn in 2021, with green bond issues remaining the main format. The volume outstanding meanwhile is distributed across eight jurisdictions, following the addition of Austria, Italy, Finland and the UK in 2021, as described above.

EUR benchmark volume (ESG) by country (EUR bn)



EUR benchmarks (ESG) – issuance volume

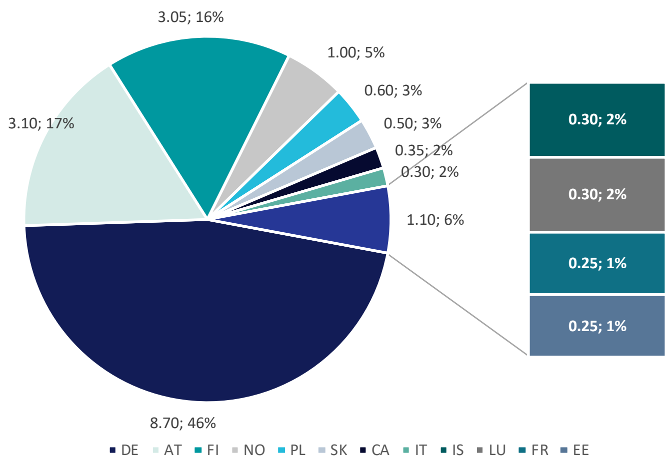


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

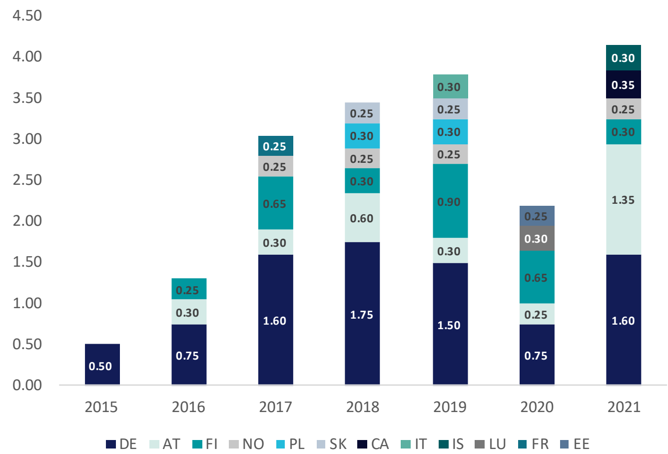
Further development of EUR sub-benchmark segment

Beyond the EUR benchmark bond segment, the steady development of the market for EUR sub-benchmark bond issues continued. In our view, this niche market provides issuers with the advantage that, with regard to available cover assets, smaller financial institutions can also embrace the features of covered bonds for their funding while giving investors credible reassurance of their regular market presence. Insofar, the new addition of issuers in the past twelve months per se has not surprised us. However, the expansion of the group of jurisdictions has certainly been remarkable.

EUR sub-benchmark volume by country (EUR bn)



EUR sub-benchmark – issuance volume



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

EUR sub-benchmark segment – 29 issuers have benchmark bond issues outstanding

As at year-end 2021, the volume outstanding in the EUR sub-benchmark segment totalled EUR 18.7bn, divided across 69 bond issues of 29 issuers. With regard to the distribution at the level of jurisdiction, Germany tops the list of twelve countries. Next are Austria and Finland. The group of jurisdictions was expanded following the inclusion of Iceland’s Arion Bank and Canada’s Equitable Bank, with their EUR sub-benchmark debut issues worth EUR 300m and EUR 250m respectively. In Germany, Oldenburgische Landesbank also launched its debut issue in the sub-benchmark segment with bonds worth EUR 350m. Austria’s Bausparkasse Wüstenrot made its successful debut in the EUR sub-benchmark segment (EUR 300m). The ESG trend is also emerging in the sub-benchmark segment. For example, Møre Boligkreditt (NO) launched its inaugural issue of green covered bonds and Oberösterreichische Landesbank as well as Oberbank also placed green bonds in this sub-market for the first time.

Covered bond harmonisation – not all legislators submitted by the deadline

Harmonisation of the European covered bond market has been and remains of great importance to the covered bond segment in the long term – without providing immediate impetus for ASW spreads. With regard to 2021, it must be stated in this respect that the majority of the national legislators concerned failed to achieve the target requirement of passing new legislation by 8 July 2021 (cf. European Commission). As a matter of fact, we believe that the “firmer” date is 8 July 2022, the deadline from when new legislation is actually applicable. In this context, the grandfathering rule for covered bonds issued prior to 8 July 2022 should also be mentioned. Overall, we expect little in the way of potential disruption for spreads. Conversely, with regard to asset quality, we are of the opinion that the new regulations and/or adjusted national legal frameworks will have a positive overall impact on spreads. However, our view remains that harmonisation is more akin to setting minimum requirements than representing genuine alignment. There are marked differences in terms of actual implementation and/or the relevant parameters of national requirements. Differences in implementation are evident, for example, with regard to the treatment of maturity extension (soft bullets). Pfandbriefe throughout the market as a whole have been switched to a soft bullet structure, whereas other countries (e.g. Spain and France) continue to permit a mix of soft and hard bullet structures.

Conclusion

For the EUR benchmark bond segment, 2021 was more than just Year 2 of the coronavirus crisis. However, the pandemic-driven situation as well as the associated regulatory and, in particular, monetary policy responses once again left a distinct mark on the market. Yet, the important milestones achieved with regard to European covered bond harmonisation should not be ignored, nor the extensive – albeit delayed – amendment of some national frameworks. We particularly see the implementation of the minimum standards for covered bonds agreed in Brussels as a long-term supporting element for the covered bond market. Our reason for this, in part, is that overall, the asset quality of the relevant programmes should be enhanced, and the addition of new jurisdictions is likely, for the first time with their own relevant legislation. The fundamental resilience to crisis of this dual recourse product became apparent in 2021. Disappointingly, however, availability or the actually investable volume decreased once again. In this respect, we are slightly more optimistic for 2022.

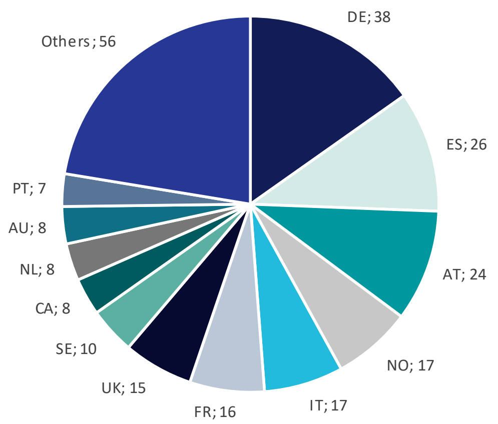
Covered Bonds
The Moody's covered bond universe – an overview

Author: Dr Frederik Kunze

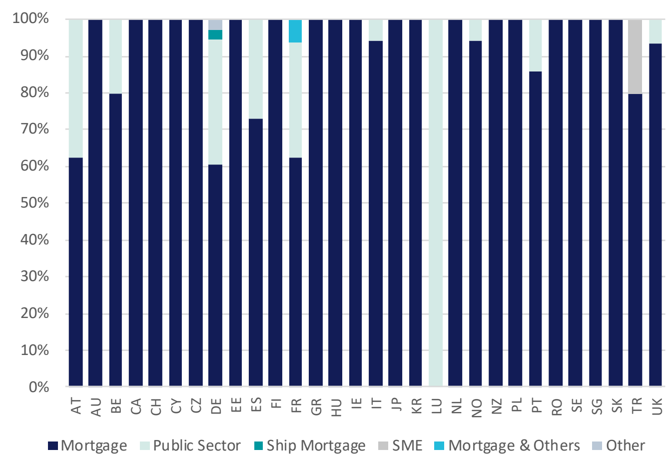
250 rated covered bond programmes

We have been providing a regular overview of the covered bonds rated by Moody's for several years now. Moody's last published its report, which appears quarterly, in December 2021. In the majority of cases, Moody's bases this report on the rating reports relating to the second quarter of 2021. Accordingly, it rated 250 covered programmes in total (previous quarter: 247). This means that the agency covers a significant portion of the total covered bond universe. Mortgage-backed programmes account for 82%, of Moody's covered bond universe, or 205 programmes. Moody's also rates 41 public-sector programmes (16.4%), which are, however, concentrated in Germany (13 programmes), Austria (9), Spain (7) and France (5). With regard to distribution by jurisdiction, we can say that virtually 78% of the programmes are attributable to those 12 countries in which at least seven programmes have been rated, whereas the remaining 56 programmes are spread across 18 jurisdictions in total.

Number of programmes rated by Moody's



Distribution of programme types by country



Source: Moody's, NORD/LB Markets Strategy & Floor Research

Focus on mortgage programmes from EUR benchmark jurisdictions

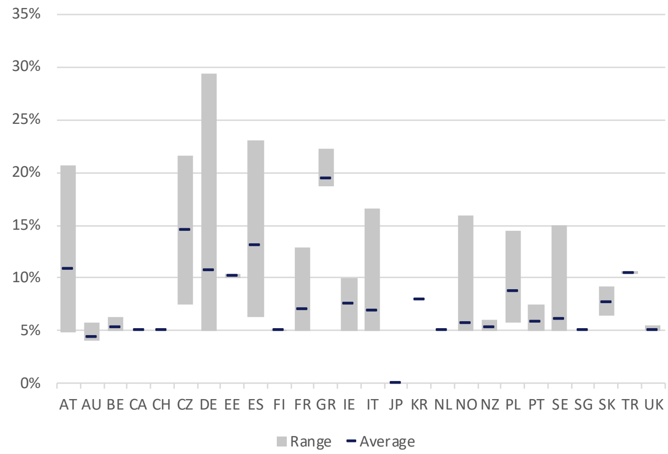
Looking at the covered bonds rated by Moody's, it is absolutely clear that the agency focuses on mortgage-backed programmes, which are also located virtually entirely in EUR benchmark jurisdictions. The only countries from which we currently register no outstanding covered bond issues in the EUR benchmark segment are Turkey (5), Hungary (2), Cyprus (1) and Romania (1). For these reasons we focus on those mortgage-backed programmes that were drafted from EUR benchmark jurisdictions in the following report. However, it must be noted here that EUR benchmarks do not necessarily have to have been issued from the programmes considered for this purpose. Rather, the limitation with regard to the Moody's covered bond universe as a whole aims to facilitate comparability of the figures from an investor's perspective.

Majority of the mortgage-backed programmes are residential

Looking at Moody's classification of the cover assets of the individual programmes, it is apparent that issues are 83.8% backed by residential assets on average. Only Germany (46.5%) and Austria (56.1%) have average quotas below 75%. Besides Germany (13.5%), Switzerland (10.2%) and Austria (10.1%) also have significant percentages of multi-family assets. The proportion of commercial assets is also comparatively high in Germany (35.4%), Austria (31.9%), Spain (19.9%) and the Czech Republic (17.0%). Public-sector assets are only used to an extent worth mentioning in France (4.0%) and Sweden (1.2%); in both cases, however, only at a fraction of the amount of the mortgage cover pool.

Structure of the cover pools (mortgage programmes)

Collateral score by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

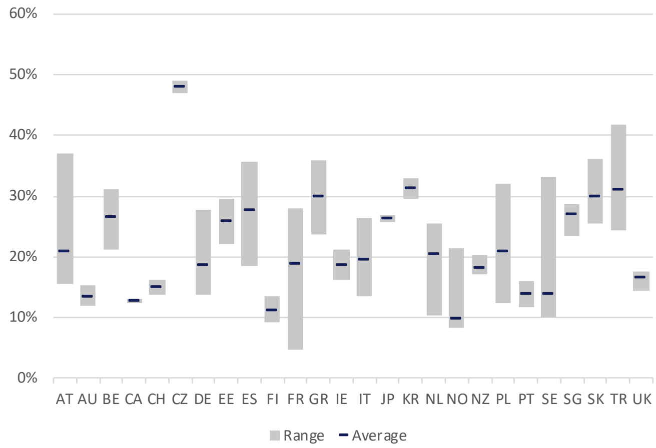
Collateral score as an indicator of the cover pool quality

The collateral score can be mentioned as a key figure in Moody's covered bond universe. This is used by the rating agency to assess the quality of the cover assets, with a low value indicating a high-quality cover pool. In principle, we consider it appropriate to compare collateral scores across programmes and jurisdictions as well. Nevertheless, some specific characteristics must be taken into account here. For example, with the majority of the mortgage programmes, Moody's provides for a lower limit of 5% for the collateral score. In Australia, however, the collateral scores also go down to 4%, whereas collateral scores of 0% can be set in Japan – because of the RMBS structure of the respective programmes. In addition to the average collateral score at a national level in each case, the above diagram also shows the range of forms. The jurisdictions Canada, Switzerland, the Netherlands and Singapore, have scores of 5%. Finland is also characterised by a very narrow range (maximum: 5%). In contrast, the picture nationally is far more mixed in terms of the collateral score for Austria, the Czech Republic, Germany, Spain and Italy. However, the cover pools containing the lowest quality assets on average are to be found in Greece, the Czech Republic and Spain. Hardly surprisingly, the picture is highly differentiated at a global level.

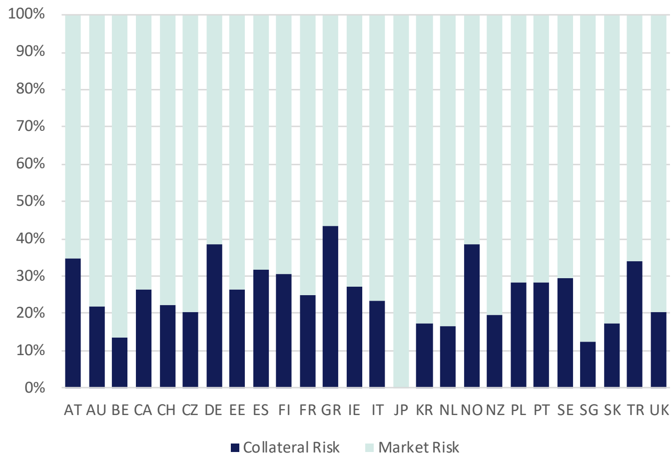
Cover pool losses figure based on two components

Moody's rating experts use cover pool losses (CPL) to reflect the anticipated losses in the cover pool following a default by the issuer. Here, the risk consists of two components – market risk (refinancing, interest rate and currency risks) and collateral risk (asset quality and credit risk). When compared globally, it is clear again that there is a high level of heterogeneity, just as there is with the collateral score, which is apparent not only in relation to the average cover pool losses but also with a view to the range of national forms. For example, the cover pool losses in Canada, Finland and Norway are especially low, while they are relatively high in the Czech Republic, South Korea and Slovakia. Programmes from Canada, the Czech Republic and Japan have a narrow range, which is, however, attributable in part to the low number of programmes.

Cover pool losses by country (mortgage programmes)



CPL risk components by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

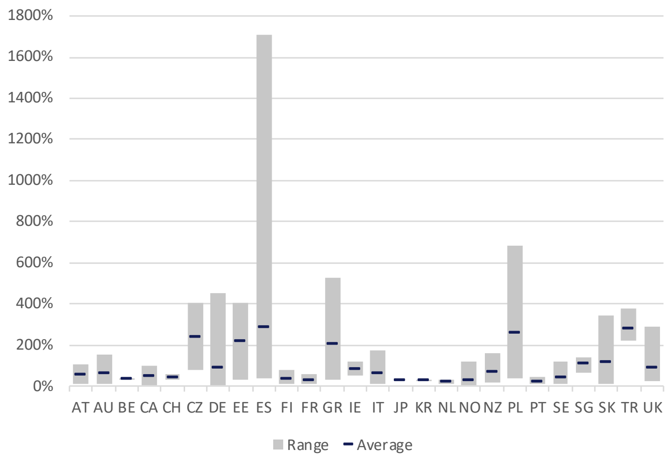
Refinancing, interest rate and currency risks determine the anticipated losses

The image above right shows that there are quite considerable differences in the contribution of the two components (collateral risk and market risk) at a national level. For instance, the share of the collateral risk in the cover pool losses is relatively high in Germany, Greece and Norway, in particular. However, a fall in the quality of the cover pool accounts for a relatively minor share of the cover pool losses in the event of an issuer becoming insolvent in Belgium, Japan and Singapore. The two programmes from Japan, which feature no collateral risk because of their cover pool structure (solely RMBS transactions as cover assets), again play a special role. In principle, it can be inferred that in most cases, cover pool losses are influenced by market risk, i.e., losses would be attributable to the categories refinancing, interest rate and currency risk and less to the quality of the cover assets in the event of the issuer becoming insolvent.

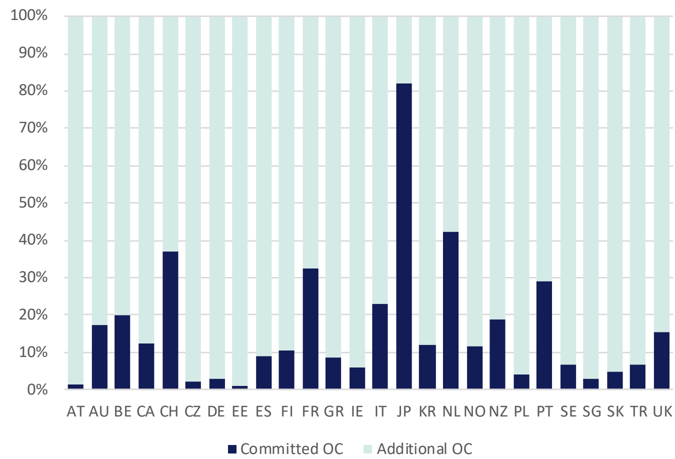
Differences in the significant overcollateralisation of Spanish programmes

Hardly surprisingly, an international comparison of the levels of overcollateralisation of programmes rated by Moody’s reveals marked differences. The greatest national heterogeneity is apparent in Spain, Greece and Poland (only three programmes). While the Spanish programme is overcollateralised with the lowest OC of 40.8%, the OC of the Kutxabank programme amounted to 1,706.3% in the second quarter of 2021. On the other hand, there are also jurisdictions, such as Finland, South Korea and the Netherlands, where the overcollateralisation levels of the individual programmes are comparatively similar and feature very narrow ranges.

Overcollateralisation by country (mortgage programmes)



Composition of the overcollateralisation (mortgage programmes)



Source: Moody’s, NORD/LB Markets Strategy & Floor Research

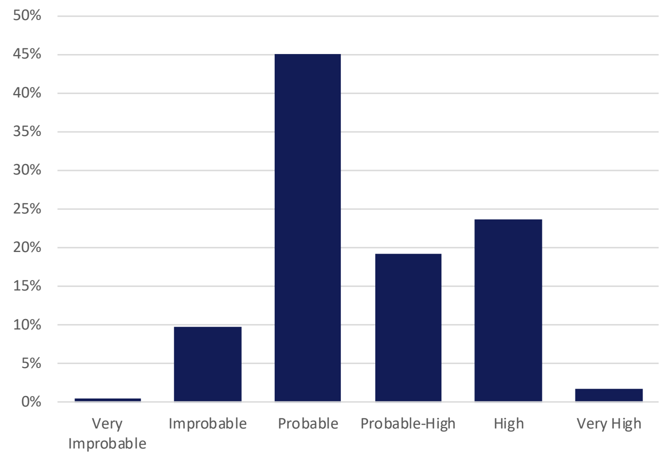
Committed OC as the starting point for voluntary overcollateralisation

Overcollateralisation can also be divided into subcomponents. It might have been committed to the rating agency to ensure a certain rating or as a legal requirement. Committed OC can therefore be seen as a kind of lower threshold, meaning that overcollateralisation should not readily or even must under no circumstances fall below this level. In contrast, actual overcollateralisation might just be a temporary status, which is potentially subject to certain volatilities through new issuances or maturities. Looking at the proportion of committed OCs in the OC levels, it is clear that the overcollateralisation in Austria, Germany and Singapore, in particular, is largely provided on a voluntary basis and could accordingly be reduced comparatively easily. This is also due to low requirements for committed OCs, which averages 0.7% in Austria, for example. In Germany and Singapore at least, it is 2.6% and 3.0%, respectively. In contrast to this, overcollateralisation in Japan, the Netherlands and South Korea largely consists of committed OCs. By and large, it must be noted that the greater proportion of overcollateralisation is provided by issuers on a voluntary basis, which is, however, definitely attributable to low committed OCs. It is also true that a high proportion of committed OC does not in any way entail high levels of overcollateralisation either.

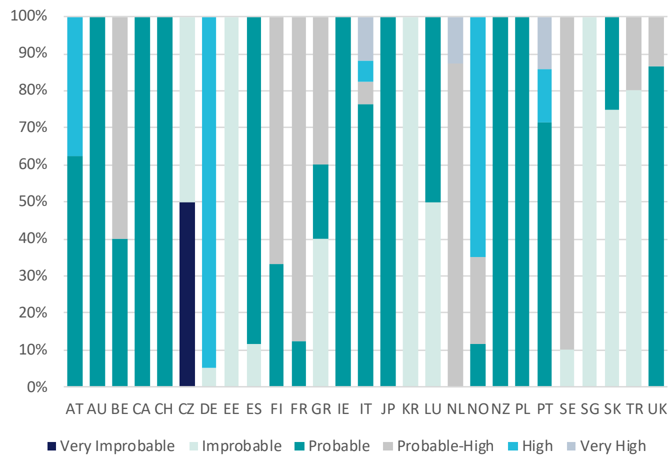
TPI links covered bond rating to the issuer rating

The timely payment indicator (TPI), which indicates how probable it is that payment obligations will be met in a timely manner following an issuer default and differentiates between six notches from "very high" to "very improbable" (see table below), is another figure provided by Moody's. The TPI also calculates the potential covered bond rating at a specific number of notches above the issuer rating. In contrast, the TPI leeway indicates the number of notches by which the covered bond anchor point can be downgraded without this entailing a rating downgrade based on the TPI methodology for the covered bond programme. It is clear from the following diagram that around half of all the mortgage programmes rated by Moody's have a TPI of "probable". In contrast, the margins are less heavily represented with shares of 0.4% (very improbable) and 1.6% (very high), respectively.

Timely payment indicator (TPI) (mortgage programmes)



TPIs by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

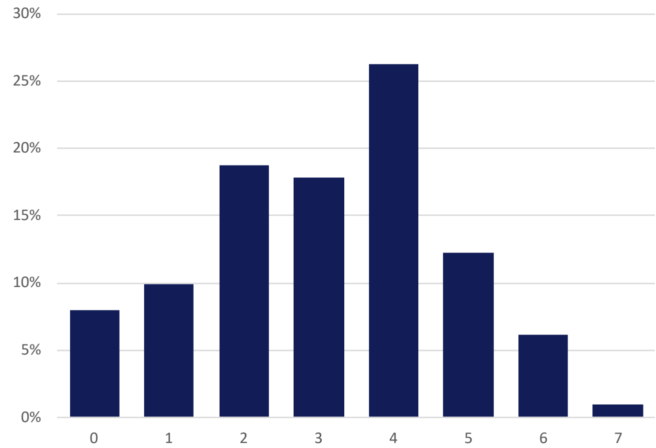
National assessments the same in many cases

In ten EUR benchmark jurisdictions in total, the programmes have only a single expression of the timely payment indicator in each case. While this is "probable" in seven cases, the programmes in Estonia, South Korea and Singapore only have TPIs of "improbable". In total, only four programmes (2x IT 1x PT and 1x NL) have the highest possible expression "very high". In contrast, only one Czech programme can be identified at the lower end ("very improbable"). At least three different levels of timely payment are, however, to be found in Greece, Italy, Portugal and Norway. In Germany, it is assumed that timely settlement of payment obligations following an issuer default is highly probable for 36 of the 38 programmes. This level of probability is also seen for programmes from Norway (11 of 17 programmes) and Austria (9 of 24 programmes).

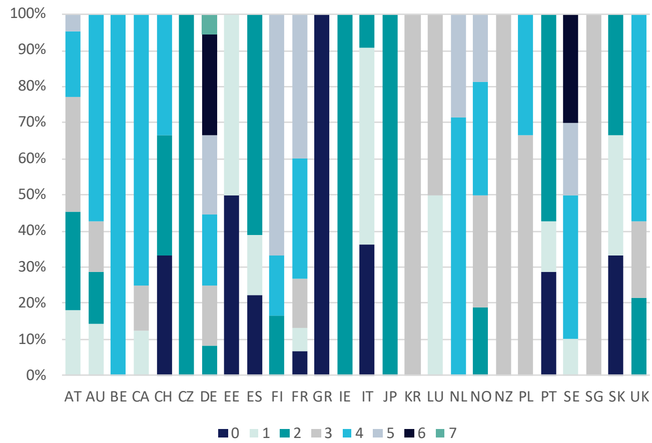
Sufficient buffer with a regard to downgrades

As mentioned previously, Moody's also provides the TPI leeway figure in addition to the TPI, which indicates the number of notches by which the covered bond anchor point can be downgraded without this entailing a downgrade for the covered bond programme, as laid down in the TPI framework. Accordingly, 17 (8%) in total of the covered bond programmes rated by Moody's do not have a buffer of this kind. This means that in the event of the covered bond anchor being downgraded, the programme would be downgraded directly. A TPI leeway of four (56 programmes; 26.3%) is most common. More than 44% of the programmes are attributable to the two middle, most frequent categories "3 notches" and "4 notches".

TPI leeways in notches (mortgage programmes)



TPI leeways in notches by country (mortgage programmes)



Source: Moody's, NORD/LB Markets Strategy & Floor Research

Germany, France, Sweden and UK have substantial buffers in some cases

At the level of national markets, it is again clear that these are distinguished by significant heterogeneity. For example, the rated programmes in Germany, Austria and France have at least five different expressions of the TPI leeway. High TPI leeways and consequently rating buffers are found particularly frequently in Germany, France and Sweden, as at least five programmes have a TPI leeway of at least five notches here, whereas at least three rated programmes in Greece, Italy and Spain have no buffer in each case, with this being all programmes rated by Moody's in the case of Greece.

Conclusion

The data on the rating-specific character of the cover pools for mortgage-backed and public-sector-backed covered bonds presented quarterly by Moody's still largely provide a robust picture of the situation at present. At the same time, however, this remains mixed with regard to assessing the credit quality of the cover assets in some jurisdictions, for example. Overall, the data is, in our opinion, very consistent with the view that the coronavirus crisis has not in any way had a lasting adverse impact on the credit quality of the programmes rated by Moody's.

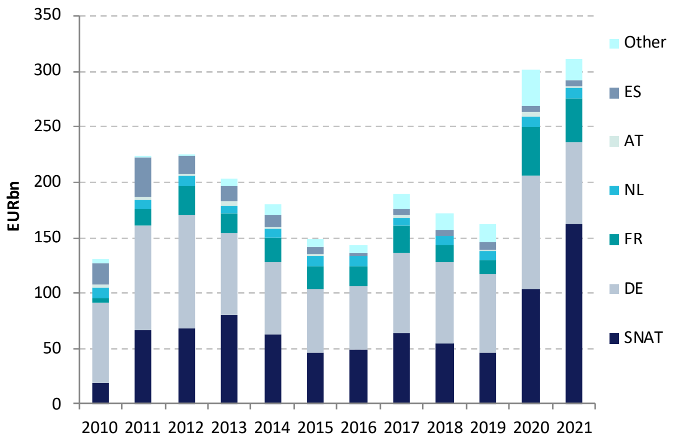
SSA/Public Issuers
SSA Annual Review 2021: Record after record

Author: Dr Norman Rudschuck, CIIA

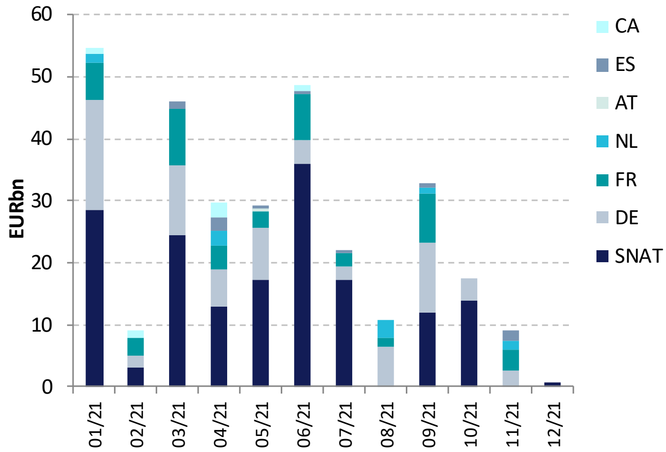
Introduction

As part of our first edition of the new year, we would like to look back and take stock of EUR activities on the SSA market in 2021 with the necessary distance despite pandemic-related distortions. Overall, the past year was characterised by continued favourable refinancing conditions for the issuers in our coverage universe. The pandemic only changed this in the short term, as the ECB counteracted it to a considerable extent with the PEPP in the second year of the coronavirus pandemic as well. In particular due to the Eurosystem's purchase programmes (PSPP and PEPP), investors in top-rated bonds were not able to achieve any yields in the past year. At the same time, this substantial demand also coincided with a gigantic new supply of bonds.

EUR benchmark issuance volume



EUR benchmark issuance volume 2021



NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Further growth in high level issuance volume

The year 2021 was somewhat more predictable than 2020: funding figures were treated with caution, the German debt brake was still suspended, the ECB had set its course under the PEPP and we learned to live with the virus and its variants. Supplementary budgets of the Bundeslaender were virtually non-existent (although the funding figures for all 16 Laender were not available until March), the EU completed SURE and launched NGEU, KfW had a record year, while the support measures of the European Central Bank (APP and PEPP) simultaneously met increased supply with a sharp rise in demand. Overall, all issuers had to make fewer adjustments than in 2020 – all the well-known issuers were affected by the emergency to refinance the pandemic costs. Consequently, EUR benchmarks were once again more in demand than in 2020 and a new record was set for new issues in our coverage (EUR 324.2bn).

Pronounced focus on the first half of the year

In 2021, the familiar issuance patterns returned: January was again the busiest month with EUR benchmarks well above EUR 50bn. In 2020, the equivalent figure was around EUR 30bn, which made it only the fourth busiest month of the year. In 2021, June came close to the EUR 50bn mark and ranked second. Third place went to March with over EUR 45bn, while even September still came in at over EUR 30bn and took fourth place. Surprisingly, February was already second to last after December. However, this confirms the fact that January and March in particular were so active. Unsurprisingly, the months of August and November did not offer much in the way of fresh supply. The activities in the past year not only far exceeded the previously strongest years 2011 and 2012, but also the previous record year 2020. All in all, a record issuance volume (EUR benchmark) of EUR 324.2bn (previous year: EUR 303.8bn) was again achieved. As a matter of fact, the average since 2008 is EUR 172.5bn. As described, the previous record years were 2011 and 2012 with around EUR 224bn. At 207, the number of EUR benchmarks was also at a record level in 2020, although this value declined, according to our calculations, to 176 bonds in 2021. This was mainly due to the large-volume bonds issued by Luxembourg's E-supras, with the EU at the forefront. The long-term average here is 130 bonds, with past peaks in 2011 (153 bonds) and 2012 (157).

Publications in 2021

In addition to our ad hoc publications on market-moving events, for example the ECB's ground-breaking decision in December that will shape proceedings in 2022, we stuck to what we do best in 2021. In September, the latest edition of the Issuer Guide – Deutsche Bundeslaender 2021 was published and proved very popular. It is also always interesting for us to see how your interest in "niche products" grows. In the meantime, we continue to expand the "Beyond Bundeslaender" segment. Here we were able to shine a spotlight on regions in Portugal, Spain and Belgium. However, our otherwise annually published Issuer Guide for Supranationals & Agencies (most recently 2019), which served as a reference work and provided a comprehensive overview of the EUR benchmark segment, had to be cancelled again due to capacity constraints. These flagships were accompanied by 40 issues of our weekly publication as well as digital Capital Market Conference events and Spotlights on selected topics. Our integration as *Markets Strategy & Floor Research* within the Financial Markets sector also progressed.

Brief summary of key topics in 2021

The topics that caught our attention last year remained COVID-19 and the ECB programmes. The EU became a new super issuer, aid packages that had been launched for all kinds of economic sectors and had to be serviced and even a rock-solid KfW achieved a record funding volume of EUR 82bn consisting of 211 transactions spread over 15 currencies (see Market Overview SSA/Public Issuers section of this edition). In the further course of this article, we not only examine these highlights, but also the continued suspension of the German debt brake, downgrades of individual regions, the importance of forward-looking ESG topics, the flood disaster, new issuers, the tokenization of bonds, and much more besides.

The year ended as it began: The ECB meets for a landmark session

The monetary policy path for 2022 (and beyond) was identified and set out by the Governing Council and Christine Lagarde in December. At its last regular meeting of the year, the European Central Bank (ECB) announced – as most market participants had expected in advance – that it would end net purchases under the Pandemic Emergency Purchase Programme (PEPP) at the end of Q1 2022 and further reduce or moderate the pace of purchases in the weeks until then. In contrast, the conventional securities purchase programme (APP) will be topped up from this date (1 April 2022) by an initial EUR +20bn per month to EUR 40bn, followed by a gradual reduction to EUR 30bn at the beginning of Q3 and to the starting value (EUR 20bn) at the beginning of Q4. The purchases will then continue on this scale for as long as is necessary to strengthen the accommodative effect of the ECB's key rates. The Council still expects net purchases to end shortly before the start of key rate hikes. APP reinvestment will continue beyond this date and will be maintained for as long as necessary to thereby maintain favourable liquidity conditions and extensive monetary policy accommodation. In this way, the Eurosystem will remain the predominant factor with the APP temporarily boosted in 2022 and PEPP maturities to be reinvested at least until the end of 2024. This suggests a sideways movement for yields and spreads in the public sector in particular, as this asset class dominates all other asset classes in terms of volume within the framework of the purchasing programmes. It is also worth repeating that the APP still has no end date, and that interest rate hikes will only commence after this programme is terminated. As expected, one adjustment that the ECB has not made is the conditions or framework parameters of the third series of targeted longer-term refinancing operations (TLTRO III). In contrast to the December 2020 meeting, the extremely favourable conditions were not extended beyond June 2022. Similarly, the graduated interest rate was not adjusted. Nevertheless, in our opinion, it is worth emphasising that both instruments were explicitly named and reference was made to a possible recalibration.

How long is "transitory"?

A defining question in 2021 was "How long is 'transitory' actually?" Virtually no-one uses the word "transitory" in everyday life, but the ECB falls back on this term all the time. In doing so, it looks at the current steep rise in inflation. The current overshooting of the symmetrical inflation target of 2% is seen as temporary or only lasting for a short time, in the literal sense of "transitory", and thus as falling away again later. However, it is not defined whether, as in medicine, it is more a matter of weeks or months or over a year or even longer. The ECB's past inflation forecasts for 2022 (1.7%) and 2023 (1.5%) did not indicate sustained high inflation for the following years, although market rates priced in a rate hike. As expected, inflation forecasts for the years 2021, 2022 and 2023 were revised upwards in December, and in some cases significantly so. For 2021, the central bank now expects an inflation rate of 2.6% (previously 2.2%), while the ECB projections here are 3.2% for 2022 (previously: 1.7%) and 1.8% for 2023 (previously 1.5%). For the year 2024, 1.8% is also expected. This again has a transitory whiff about it with improvement from 2023. When assessing the risks, rising wages but also a return to full utilisation of economic capacities could drive up inflation.

EU: first SURE, then NGEU

We expected the all-conquering European Union to provide around EUR 150bn in new funding in 2021. In purely arithmetical terms, this would have been around EUR 3bn per full calendar week and would have meant that, in total, a single SSA issuer would issue more EUR benchmarks than the entire EUR covered bond market in 2021. The SURE programme alone generated a lot of activity in H1. These were exclusively social bonds (over EUR 50bn). In addition, the EU had to refinance or extend EUR 10bn on a "regular" basis (e.g. MFA, EFSM, BoP). In addition, there was funding for the NextGenerationEU (NGEU) fund in the second half of the year. An EU investor call was held on the topic of NGEU. On 1 June, the funding update for the rest of the year was promptly published before this after all EU member states had ratified the NGEU programme. On 4 June, the EU then sent out its RfP for the upcoming NGEU debut transaction. A term of 10 years and a volume of EUR 20bn were not only sizeable, but also generated a level of demand never before seen at the same time. The first three transactions before the summer recess were to be held as a syndicate and from September onwards also as an auction. By the end of the year, a volume of up to EUR 80bn was planned to be raised in this way – this ultimately ended up at EUR 71bn with order books of EUR 650bn. In addition, brand new EU bills were issued from September. By the end of 2026, the EU will have raised EUR +/-800bn on the capital market (i.e. excluding bills). Of this volume, 30% will be green bonds (roughly EUR 250bn). In total, the EU is planning EUR 407.5bn in grants and EUR 386bn in loans. In addition, an average of EUR 150bn per year is forecast, perhaps slightly more in 2022/23 and slightly less in 2025/26, according to our estimates. Irrespective of the exact values or percentages, the EU will be the largest issuer in the supranational segment within a few years and will have overtaken many sovereigns, too. This applies both to the number of individual primary market issues per calendar year and the total market depth. The maturities of the NGEU bonds were also confirmed at between three years and a maximum of 31 years, a familiar feature of the SURE programme, where the average announced term was 15 years. Moreover, the framework does not have to be exhausted to finance investments in green and digital measures or to haul the economy (or economies) out of a recession. Part of the funding is distributed to member states in the form of grants, which are repaid from the EU's common budget and new taxes. In addition, the Green Framework was presented in the summer.

SURE: approved financial support in 19 Member States (EUR 94.3bn)

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 504m	**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

Next Generation EU: Germany expects “only” EUR 28bn

According to media reports, the German government expects to receive funding of roughly EUR 28bn from the EU Corona Recovery Fund totalling more than EUR 800bn. According to a government representative, the cabinet has approved the reconstruction plan presented by the former Finance Minister. Around 90% of the earmarked expenditure was for climate protection and digitalisation. EU targets would therefore be clearly exceeded. Scholz presented the details in a joint press conference with the French Finance Minister Bruno Le Maire. Since the investment backlog in Germany in regard to climate protection and digitalisation is much larger than just EUR 28bn, we are somewhat at a loss as to why future issues have been put on the back burner.

EIB: Great Green Wall initiative

The EIB has announced that it will provide financial and technical support in the areas of sustainable agriculture, clean energy, water infrastructure and the private sector in eleven priority countries in the Sahel region threatened by climate change. In our view, this fits very well with the changing structure of the EIB. Its support will give the Great Green Wall initiative more clout. The aim is to improve biodiversity in the Sahel region and better address the region’s climatic and environmental challenges. Targeted investments with a high development impact will enable more equitable growth and strengthen the region's resilience to promote peace and stability. According to the press release, with its increased commitment the EIB aims to promote particularly environmentally sustainable investments and in doing so establish a foundation for new jobs, better economic opportunities and better access to clean energy and clean water. The eleven countries in which measures are to be taken within the scope of the initiative are Ethiopia, Burkina Faso, Djibouti, Eritrea, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan and Chad. At the *One Planet Summit for Biodiversity*, President Hoyer underlined the impact of recent EIB support. This involved water investments in Mali and Niger, clean energy in West Africa and supporting the private sector with local microfinance and banking partners. The EIB is currently supporting projects to combat land degradation and improve access to finance for rural communities and smallholdings in Mali and Ethiopia. Soil erosion in Nigeria is also to be stopped and prevented. All these initiatives are a model for successful biodiversity investments in other African countries. EIB investments in sustainable agriculture and environment projects in Africa will benefit from the EIB's pioneering role as the first international financial institution to issue bonds in support of biodiversity investments. And an interesting little fact for ESG investors: The EIB has added the criterion of biodiversity to its Sustainability Bonds (SAB). Target by 2030: provide EUR 1,000bn.

ESM reform

A major innovation is the expansion of the ESM instruments to include a further lending tool, namely a backstop for the Single Resolution Fund (SRF). In the wake of the euro crisis, the EU regulation of a Single Resolution Mechanism (SRM) was adopted in 2014. The SRF has the function of financing bank resolutions. Currently, it comprises some EUR 47bn. Should the SRF's resources be exhausted – for example, if too many banks were put at risk in a crisis – the ESM can step in as a safety net from 2022 through the reform. While this would not directly lead to an ESM financing need, if triggered, the ESM may have to (re-)finance the amounts in the market. As early as 2017, the decision-makers in the Eurozone agreed on such a backstop, but it was not to be introduced until 2024, as Germany in particular, along with other EU states, insisted on reducing banking risks first. However, at the meeting on 30 November 2020, the stakeholders concluded that sufficient progress had been made in reducing risks in the banking sector, so the backstop is expected to be introduced two years early (i.e. in 2022). The decision to grant the credit line from the ESM to the SRF will be taken by the ESM Council at the request of the Single Resolution Board (SRB). The decision of the panel is always made by consensus. However, if the ECB and the European Commission believe that the sustainability of the Eurozone is at stake, a qualified majority decision (85%) can be taken.

Flood disaster in NRW and Rhineland-Palatinate…

Storm Bernd had financial consequences for Germany and further afield in 2021. Following the severe flooding disaster in mid-July and the extensive damage it caused, the financial administration in NRW has extended the disaster decree that came into force on 16 July and allows – partly for a limited period – around 50 tax measures to support those affected. The amended decree was primarily intended to make it easier for companies and businesses that want to provide support to do so in an unbureaucratic way without having to fear tax disadvantages as a result. On 16 July, the financial administration had already stipulated in the disaster decree that, among other things, special depreciation options for reconstruction were possible.

…but Wallonia also affected, among others

According to Elio Di Rupo (PS; Parti Socialiste), Minister-President of Wallonia, 240 of the 262 municipalities in Wallonia were affected by the floods. Political observers immediately assumed that many a project in the coalition agreement had been washed away with the flood. Tough (financial) decisions would have to be made there now. Soon there were visions of creating a "new Wallonia", for example. On the other hand, it was inevitable that the destroyed villages would have to be reconstructed. Prime Minister Alexander De Croo (Open VLD; Open Vlaamse Liberalen en Democraten) said that an application had been made for money from the European emergency fund. Philippe Henry (Ecolo), the Walloon Minister for Infrastructure, Mobility and Climate Protection, said that investments would have to be brought forward 15 years in some cases. Budget Minister Crucke said on this subject that Wallonia also had to think about where exactly they were still building. For example, in narrow valley zones where there would be a real risk of flooding because the water cannot escape, the authorities should even consider removing buildings if necessary.

BADWUR goes green

Fortunately, coronavirus and natural disasters were not the only topics of discussion in 2021. The German state of Baden-Wuerttemberg went green and issued its first green bond for EUR 300m (WNG). Modest as the Swabians are, the IPT was ms -1bp area, the guidance ms -2bp area and it was finally priced at ms -4bp. The books were more than five times oversubscribed. The impending elections and the 2020 downgrade have so far not undermined BADWUR's successful appearance on the capital markets. Exemplary projects are also mentioned. With particularly energy-efficient new building projects, whose primary energy consumption is more than 20% below the standard of the German Energy Saving Ordinance, additional greenhouse gas emissions are avoided in new buildings compared to conventional new buildings. With the promotion of municipal broadband investments, the foundations are being laid to change mobility behaviour – be it through home office working or telemedicine services. Silvicultural measures will help forest owners to make their forests climate change-resistant and support reforestation, which directly contributes to climate protection.

Beyond Bundeslaender: downgrades for regions near and far

The coronavirus pandemic has many implications, two of which are extremely relevant for the capital market: increased refinancing needs on the part of issuers and, as a result, negative effects on ratings in some quarters. In 2020, some German Bundeslaender already had to contend with downgrades due to COVID-19, followed by various regions in 2021 that we include in our coverage. Over the course of the year and the pandemic, the big three agencies took another detailed look at various issuer ratings. We would like to pick out four regions as examples: VDP, ALTA, SCDA and BRCOL. Fitch concluded that the previous AA for Ville de Paris (VDP) was no longer tenable and that an AA- was now appropriate. The outlook was set at stable. In addition, S&P lowered Alberta's long-term issuer rating from A+ (negative) to A (stable). This development did not come as a surprise to the capital markets. The rating agency had changed the outlook for ALTA, to use its Bloomberg ticker, to "negative" in May 2020, citing fiscal deterioration due to the pandemic coupled with weak oil prices. Shortly afterwards, Moody's also lowered Saskatchewan's long-term issuer rating from Aaa (negative) to Aa1 (stable). The rating agency had previously changed the outlook for SCDA (again, to use the Bloomberg ticker) to "negative" in September 2020, citing fiscal deterioration due to the pandemic as well as the long road back to a balanced budget. Fitch also downgraded the province of British Columbia's long-term rating from AAA to AA+. At the same time, the rating outlook was revised from "negative" to "stable". The rating action reflects Fitch's expectation that the province's debt burden will increase significantly in the coming years as it copes with the economic and fiscal distortions caused by the pandemic; it also reflects the parallel rapid increase in Government of Canada borrowing that Fitch takes into account in its approach to rating Canadian provinces. Fitch does not consider Canada's sovereign rating to be an upper limit for British Columbia's rating. Now, however, the province is at the same level as Canada and consequently no longer benefits from the additional one-notch rating increase granted to lower-rated provinces. BRCOL also lost its top credit rating from S&P.

New issuers in the SSA segment

We have seen new EUR benchmark issuers in the market, but we cannot permanently include them in our coverage: The West African Development Bank (BOAD) was founded in 1973 and is the development bank of the West African Economic and Monetary Union (UEMOA), based in Lomé, Togo. BOAD's sponsors are the West African Central Bank (BCEAO) and the member states of the UEMOA (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo). Other shareholders of BOAD include the states of France, Belgium and Morocco, the Chinese central bank, the Indian Eximbank as well as the Kreditanstalt für Wiederaufbau (KfW), the European Investment Bank (EIB) and the African Development Bank (AfDB). According to its statutes, BOAD's objective is to promote the balanced development of its member states and to support economic integration within West Africa by financing development projects. The EUR bond (EUR 750m, 12y) came in at ms +300bp (IPT: ms +350bp area; yield: 2.843%). The books grew to over EUR 2.8bn. We should also mention the Eurasian Development Bank (EDB). It is a multinational development bank established by the Russian Federation in 2006. Russia holds 65.97% of EDB's capital, Kazakhstan 32.99% and Belarus 0.99%. The remaining 0.05% is divided between Tajikistan, Kyrgyzstan and Armenia. With the exception of Tajikistan, the participating countries are congruent with the member states of the Eurasian Economic Union, which is a merger of the five states into a single market with a customs union. The EDB's headquarters are located in Almaty, the largest city in Kazakhstan. The Bank's objective is to strengthen economic growth in the member states and to promote trade and economic relations within the member states. EURDEV, according to the Bloomberg ticker, currently has 11 bonds outstanding. The debut issue of the *Investitions- und Strukturbank Rheinland-Pfalz* from Mainz was further confirmation that good things come in small packages: EUR 125m at ms +3bp met with demand of EUR 350m. Guidance had been at ms +5bp area. The issuer has used the Bloomberg ticker ISBRLP since March 2021.

HSH Finanzfonds: Dissolution of the bailout fund increases Laender debt by EUR 3bn

Hamburg and Schleswig-Holstein will dissolve their bailout fund (HSHFF) for HSH Nordbank in 2022. “The remaining debts will now be transferred directly to the Laender budgets,” said Mayor Peter Tschentscher (SPD) after a joint meeting of the state governments of Hamburg and Schleswig-Holstein. According to Minister President Daniel Günther (CDU), each federal state will have to pay EUR 1.5bn. The debts are still in the HSH Finanzfonds AöR. The dissolution is to take place by the end of August 2022. A total of EUR 7bn has already been repaid.

NRWBK: Eleventh green bond already

NRW.BANK issued its eleventh green bond in 2021 with a volume of EUR 500m. The promotional bank for North Rhine-Westphalia was therefore able to successfully place its second green bond of 2021 with investors. The programme funds environmentally friendly projects in NRW. According to the framework, these include wind power plants, energy-efficient building refurbishment and restoration of the Emscher and Lippe rivers. The effectiveness of the investments is shown by the analysis of the "Wuppertal Institute for Climate, Environment and Energy", which was published in June for the NRW.BANK.Green Bond 2020. This green bond, which also had a volume of EUR 500m, was used to fund various ecological projects, especially in the field of energy, whose ecological added value is reflected in 220,000 tonnes of CO_2 equivalent saved per EUR 1m.

EIB: First digital bond in public blockchain

In 2021, the EIB issued its first digital bond on a blockchain platform, using distributed ledger technology to register and settle digital bonds. In a partnership with Banque de France (BDF), the payment of the issue funds from the syndicate banks to the EIB was mapped on the blockchain in the form of Central Bank Digital Currency (CBDC). The EIB is once again pioneering the digitalisation of capital markets, as it did with the world's first green bond as well as €STR bonds. The two-year bond (volume: EUR 100m) issued is the first multi-dealer led primary issuance of intrinsic tokens (digital natives) using public blockchain technology. The project was selected as part of the digitalisation strategy of the French central bank BDF (CBDC area). The EIB believes that the digitalisation of capital markets can bring benefits to market participants in the coming years. These include the reduction of intermediaries and fixed costs, improved market transparency through an enhanced ability to disclose trade flows and identify asset owners, and a much faster settlement speed. Similar to the EIB's role in green bonds or risk-free rates, the new digital bond issue could pave the way for market participants to use blockchain technology for issuing financial securities.

AAA: ILB receives its first rating

Fitch has awarded the ILB, known to our not-so-regular readers as Investitionsbank des Landes Brandenburg (Development Bank of the State of Brandenburg), its highest AAA rating and a stable outlook, which applies to the promotional bank and therefore its bond issues too. ILB has been assessed by a rating agency for the first time. The highest possible rating is justified by ILB's solid business model, its proven high performance and the very good creditworthiness of the State of Brandenburg. We share this assessment unreservedly. The AAA rating reflects ILB's very low default risk and supports the bank in its funding activities. ILB has been an issuer of bearer bonds on the capital market since 2018 and issued a social bond for the first time in 2020. To recap: In May 2017, Moody's had upgraded the previous rating for the state of Brandenburg from Aa1 to Aaa. This was recently confirmed by the rating agency.

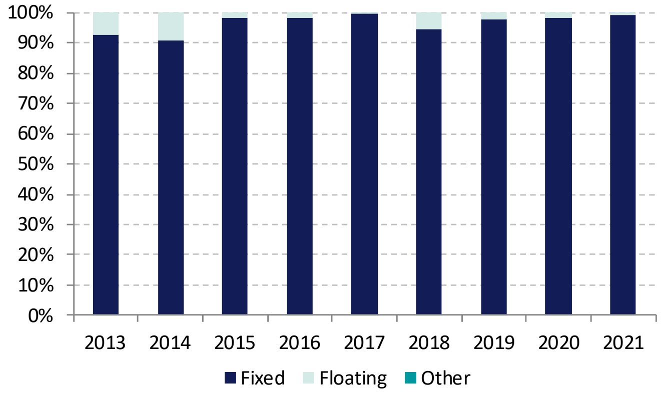
Our recommendation: step-up coupons for government bonds if ESG targets are missed

After taking a longer look at the EU in recent weeks and also developing ideas on possible new "risk-free" pricing, we want to raise and discuss another topic today. At the Global Borrowers & Investors Forum 2021, we were interviewed by Global Capital as part of a panel discussion and asked whether we support broadening the range of issues addressed in SRI bond frameworks. The short answer is "Yes, of course we support that." The longer version is as follows: Let's start by looking at the eight Millennium Development Goals (MDGs), which were adopted by the United Nations 21 years ago and were supposed to be met by 2015. The working group of representatives from the United Nations, the World Bank, the IMF and the OECD's Development Assistance Committee formulated these in 2000. At the end of September 2015, the MDGs were supplemented by the 17 global Sustainable Development Goals (SDGs) unanimously adopted by the 193 current UN member states at the 2015 World Summit on Sustainable Development in New York. According to these, poverty and hunger, among other things, should have disappeared worldwide by 2030. We really hope this will happen, but think it is overambitious, although we would like to see an even earlier solution. We consider the SDGs to be good guiding principles; in particular, they address the core SRI concept. We will not make the world a better place with green thinking and solutions alone; there are too many conflicting problem areas. Each approach to solving the challenges offers a starting point for innovations and projects. This alone could become a kind of job engine not only in the regions concerned. It would go hand in hand with economic growth. Ideally, projects would be self-sustaining and/or self-funded. However, let us briefly depart terra firma and focus briefly on Blue Economy. The Dutch agencies, among others, have been active in this area for years, especially NWB. But starting to talk about dykes and pumping cities underground, among other measures, we are just as quick to finance onshore and offshore installations. More than ever, we now need clean oceans and recycling (waste management), with all the masks that, since the onset of the pandemic, not only end up discarded on pavements but also in our seas. We see all these as fields for SRI bonds. There are already indices for ESG issues here, but these too are never finished or fully developed. We would like to use this space to propose sustainability bonds for states which are furnished with step-up coupons. These then take effect if individual governments fail to meet climate or sustainability targets. We are observing the increasing issuance volume of sustainability-linked bonds (SLBs). Some are already issued with specific Sustainability Performance Targets (SPTs) that include Key Performance Indicators (KPIs) – for example, the "percentage of recycled materials used in manufacturing by 2030". If the sustainability target is missed, the bond's step-up interest rate clause(s) will increase the interest payable on the bond. Enel, an Italian utility company, already issued a similar bond in September 2019 with a step-up amounting to 25 basis points and linked executive salaries to target achievement (share of renewable energy generation capacity: 55%). Such an approach could be extended to health or social goals, all of which are within the scope of the UN Sustainable Development Goals to fight poverty and hunger and create affordable housing. Finally, we would like to make the following comment: There is no Planet B! We must now, more than ever before, urgently align economy and ecology in our business strategies.

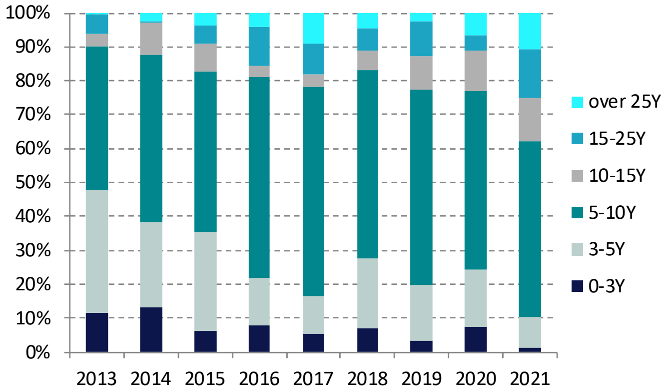
Fewer EUR benchmarks issued as floaters again in percentage terms

With interest rates falling since 2008, the importance of fixed-coupon bonds has also increased continuously and recently stabilised at an extremely high level. In 2018, there were signs of a minimal trend reversal in the short term: FRN deals increased for the first time since 2014, but (almost) came to a standstill again the following year. However, the share of FRNs as a percentage of market volume remained low at 5.4%. In 2019, this share fell to 2.2%, in 2020 to 1.9% and in 2021 to 0.8%. They did not account for a really large share in the past either. Only a genuine normalisation of monetary policy coupled with diverging expectations about the medium to long-term development of the general interest rate level could cause the share of floaters to increase much more sharply, as could be seen in 2011-2014. For the moment, however, we do not expect any notable expansion of the floater share. By volume, only EUR 2.5bn of the market volume (EUR 324.2bn) were FRNs, so the value was lower in absolute and relative terms than in 2020.

EUR benchmark issues by coupon type



EUR benchmark issues by maturity range

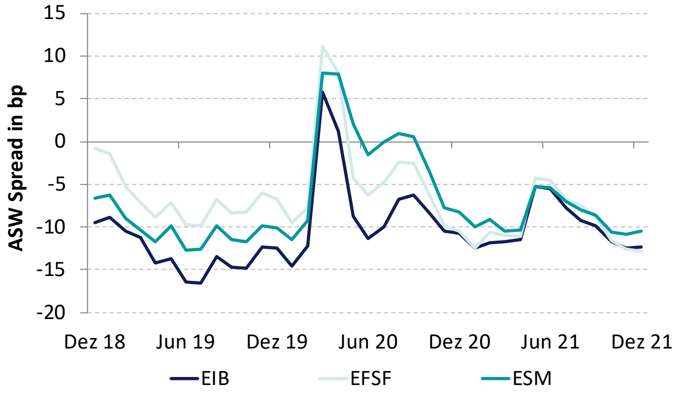


NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn.
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

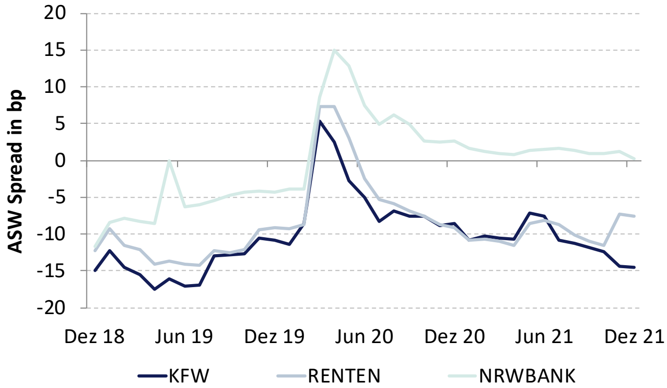
Maturity buckets trending even more strongly towards the ultra-long end

After several years, the picture for maturity buckets can finally again be described as following a clear general trend. Longer is the name of the game. While the 0-3Y share was over 20% until 2012, it was only 3.3% in 2019 and 7.3% again in 2020; a new low of 1.2% emerged in 2021. However, as can be seen from the chart above, not only the shortest bucket lost ground, so did the 3-5Y segment. Here, only 8.9% was recorded, which is also a record low since our records began in 2008. As such, just 10.1% was observed for the first five years. The trend towards long maturities in refinancing was also evident in the 10-15-year bucket. As such, the share of this maturity band has increased since 2016 (3.0%) to 5.9% (2018) and now 12.8%. We recorded the largest increases in the two categories 15-25 years and over 25 years: 14.6% was a new peak value for the segment over 15 years. At 10.5%, this also applies to the even longer bucket with maturities of up to 100 years. As in previous years, the main segment is still the 5-10y maturity band, although it has always been at around 60% since 2016 and now stands at 52.0%.

European Supras: ASW Spreads 10y



German Agencies: ASW Spreads 10y

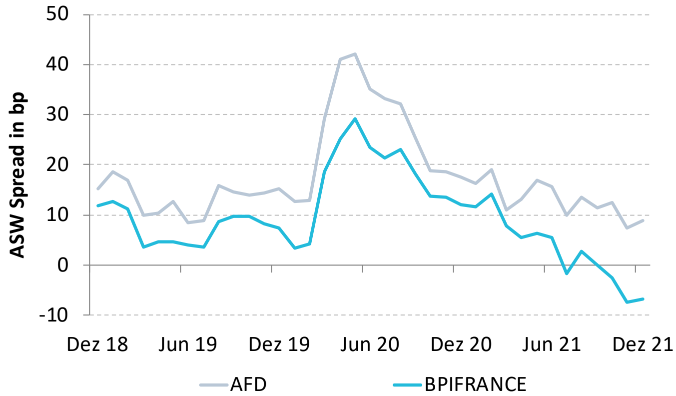


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

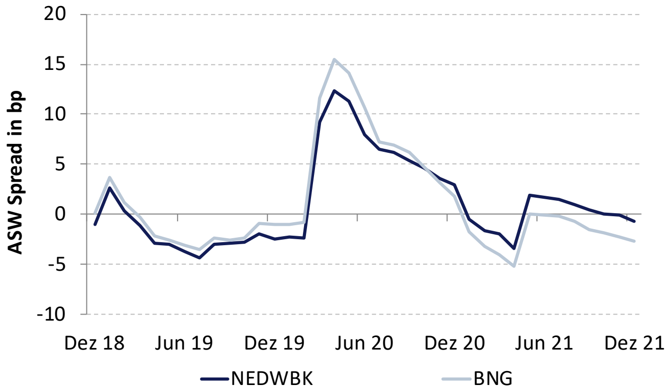
First sideways, then COVID shock, then narrowing

The spread movements of all sub-asset classes can be described in a few words. At the beginning of the year, virtually all spreads tended to move more or less sideways. In the summer, spreads seemed to "twitch" briefly, only to calm down again shortly afterwards. Since then, the ASW spreads have moved back towards the level at the beginning of the year week by week. The increased supply through special programmes and supplementary budgets was well received by the central banks last year. For almost the whole of last year, the spreads of the largest issuers were running almost parallel to each other. In particular, the rating differences are the key differentiating feature here, as well as the new bond supply. In turn, "sideways" is the term to sum up current movements.

French Agencies: ASW Spreads 10y



Dutch Agencies: ASW Spreads 10y



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

Similar pattern for French and Dutch issuers

A similar pattern has emerged for French and Dutch agencies. While relative value considerations may have played a primary role in the case of Dutch agencies due to regulatory disadvantages compared with other issuers (risk weight 20%), CADES only has little in the way of bonds that can be assigned to the ten-year maturity bucket, which is why the chart looks somewhat sparse (only AFD and BPI). In any case, the French market is more volatile due to its heterogeneity. We expect both segments to move sideways in 2022, although French elections may lead to swings in the fever curves in the short term.

What else? ECB strategy review

Rarely has the word “remoulding” been so apt as for the ECB strategy review. In addition to the strategy facelift and the new inflation target, the ECB also wants to engage in the fight against climate change in the future in terms of monetary policy (among other aspects within the framework of the CSPP). It is now aiming for a symmetrical 2% increase in consumer prices in the medium term. The old formulation – “below but close to 2%” – had to some extent been discredited because its literal interpretation suggested that the ECB wanted to fight inflation that was too high more than inflation that was too low.

First Lower Austria (NIEDOE) bond acquired under purchase programme

For a long time, there were no new issuers in the context of the purchase programme, but plenty of ISINs were always added (interim status at the time: 494 bonds from German sub-sovereigns plus another 102 European regions). These 596 ISINs were distributed across 35 different regions, as NIEDOE was acquired for the first time. After the German Laender, there has been no change in the rest of the order: Spain (47 bonds) is just ahead of Belgium (39), followed by France (8) and Portugal (7). At some point, an Austrian ISIN was then recorded. As such, all other regions stood at zero.

Action Logement Services (ALS) was on the Eurosystem’s shopping list, too

In our weekly analysis of the ISIN lists in the context of the purchase programmes (PSPP and PEPP), we came across a new name for the first time in 2021: Action Logement Services (ALS). The French issuer has two outstanding bonds, each with a volume of EUR 1bn. The maturities are 2034 and 2041. ALSFR 0 3/4 07/19/41, which was not issued until July 2021, was purchased. The Fitch rating is AA.

Conclusion

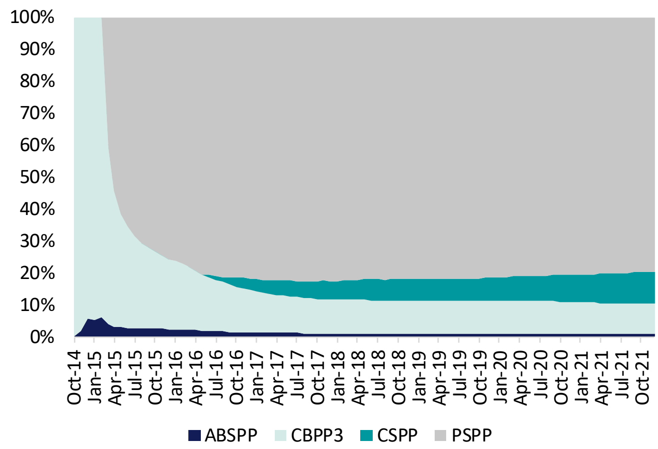
The past year was extraordinary and difficult to squeeze into an annual review. Moreover, it is far too easy to forget the other topics away from the pandemic or what (long-term and/or) positive consequences can even be discerned. At EUR 324.2bn, the issuance volume of EUR benchmarks was even more gigantic than in 2020. Trends have changed from some perspectives, and so there were fewer FRNs in percentage terms and even longer maturities (incl. 100 years NRW). In addition to the familiar conventional QE (APP; or for the public sector PSPP), the ECB also continued to turn to the PEPP to counter the consequences of the pandemic. A total of EUR 1,850bn can be purchased here by the Eurosystem up to the end of March 2022, although we do not expect the envelope to be utilised in full. This has kept spread levels at a very low level. Recently, spreads have been moving sideways everywhere, and we do not expect a turnaround in the new year. For 2022, we expect more predictable funding volumes again (e.g. KfW with a record value of EUR 80-85bn) and also Eurosystem reinvestments, while the boosted APP in 2022 should dampen further spread widening, so that spread increases will ultimately only be gradual despite the current market movements.

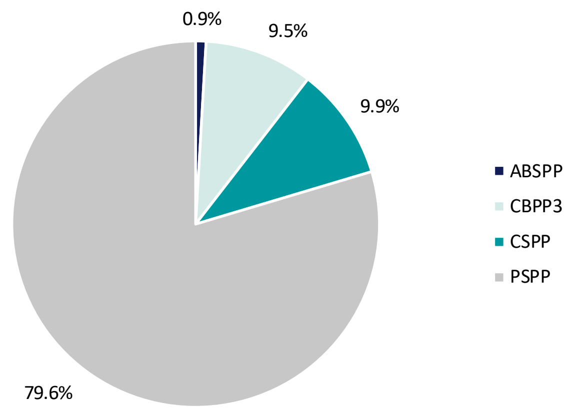
ECB tracker

Asset Purchase Programme (APP)

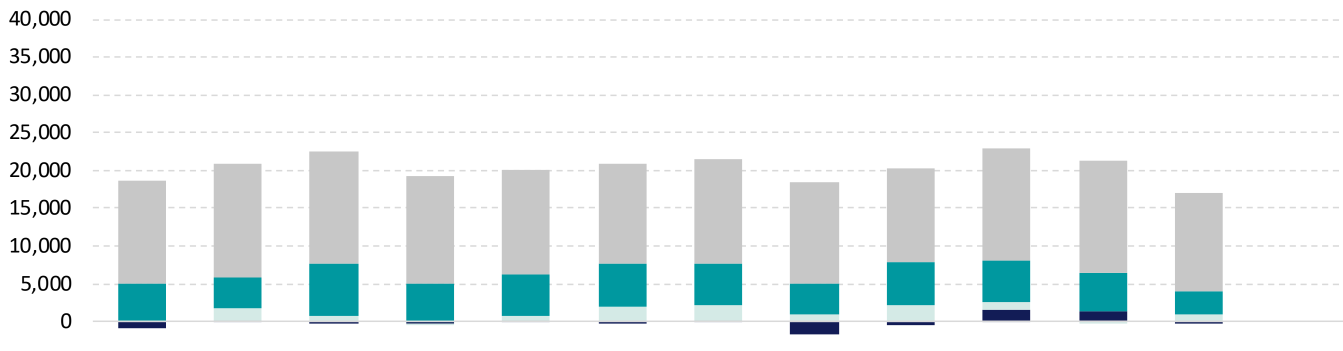
	ABSPP	CBPP3	CSPP	PSPP	APP
Nov-21	28,757	297,586	307,026	2,479,130	3,112,499
Dec-21	28,477	298,167	309,676	2,487,136	3,123,456
Δ	-269	+942	+3,007	+12,989	+16,669

Portfolio structure





Monthly net purchases (in EURm)

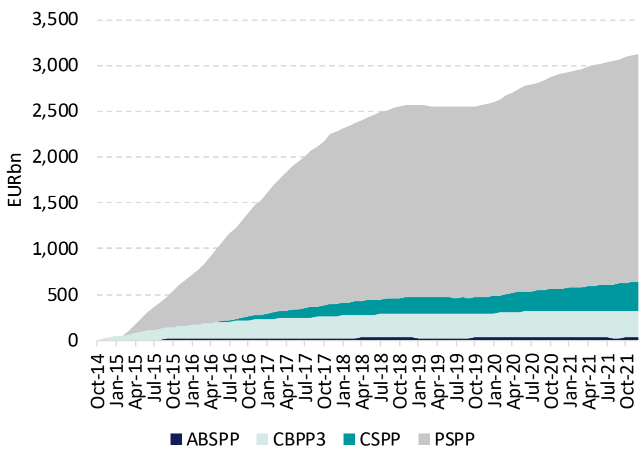


	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
APP	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,199	16,669	239,911
PSPP	13,655	15,129	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,814	12,989	167,988
CSPP	4,924	4,064	6,929	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	60,586
CBPP3	74	1,539	684	-5	686	2,037	2,011	999	2,184	1,008	-12	942	12,147
ABSPP	-807	183	-7	-278	88	-319	141	-1,749	-538	1,490	1,255	-269	-810

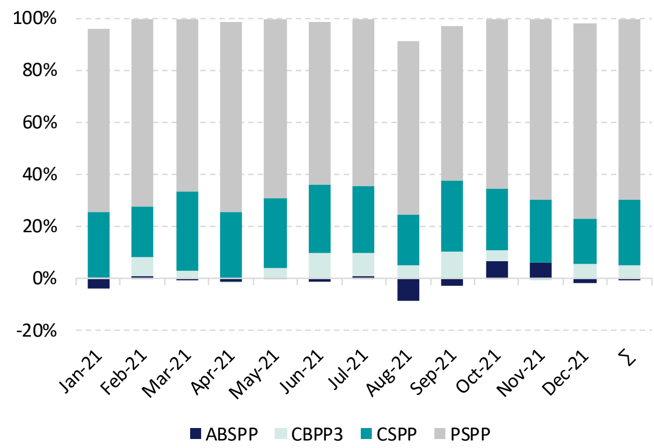
Source: ECB, NORD/LB Markets Strategy & Floor Research

NORD/LB

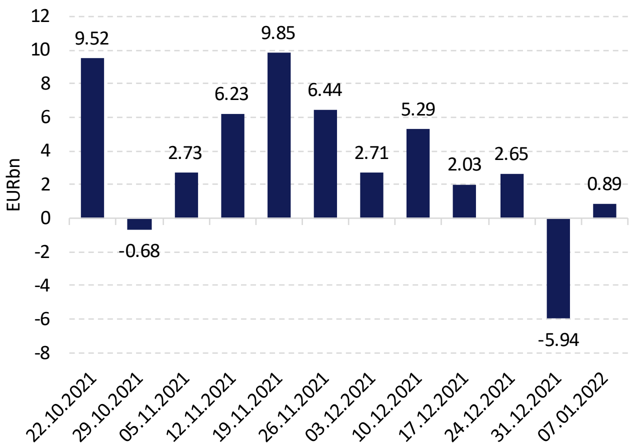
Portfolio development



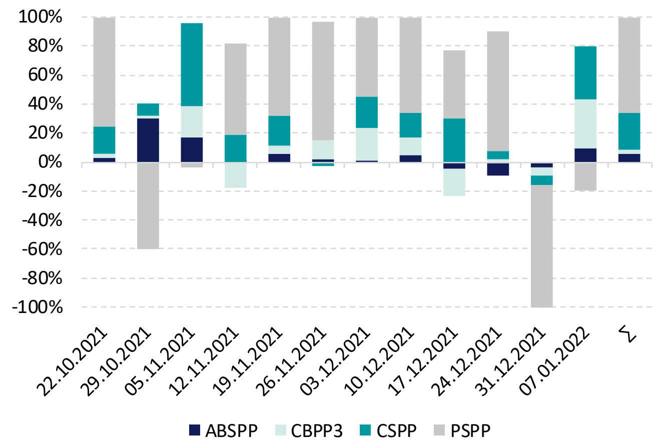
Distribution of monthly purchases



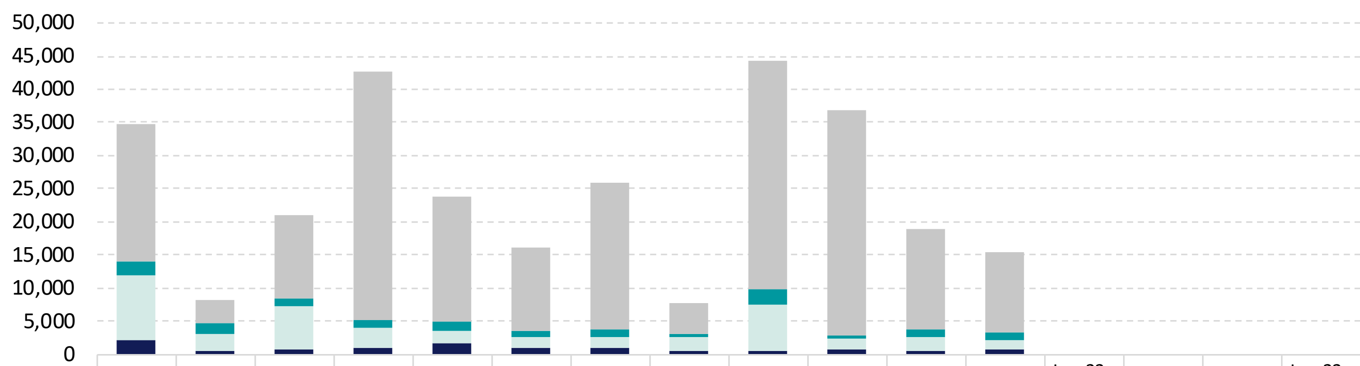
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

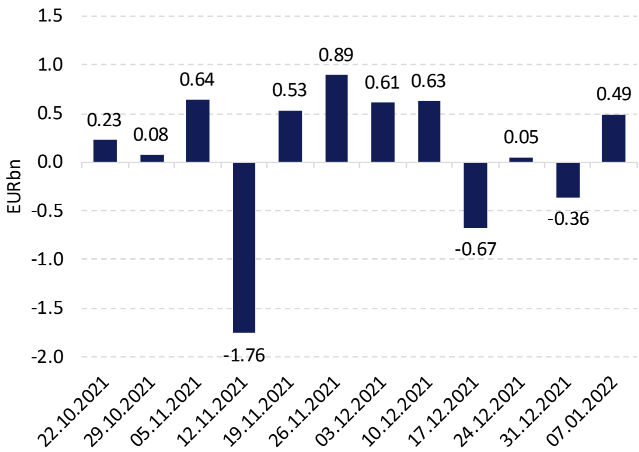


	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-22 - Dec-22	2020	2021	Jan-22 - Dec-22
APP	34,831	8,220	20,977	42,698	23,921	16,167	25,934	7,807	44,427	36,819	18,839	15,418	296,058	262,253	246,995	296,058
PSPP	20,906	3,625	12,603	37,533	18,999	12,638	22,198	4,841	34,554	34,003	14,945	12,016	228,861	201,482	188,494	228,861
CSPP	2,006	1,590	1,132	1,093	1,341	1,017	1,198	280	2,431	549	1,332	1,156	15,125	18,267	17,134	15,125
CBPP3	9,800	2,524	6,419	3,018	1,866	1,565	1,613	2,227	6,866	1,622	2,150	1,408	41,078	33,236	30,143	41,078
ABSPP	2,119	481	823	1,054	1,715	947	925	459	576	645	412	838	10,994	9,268	11,224	10,994

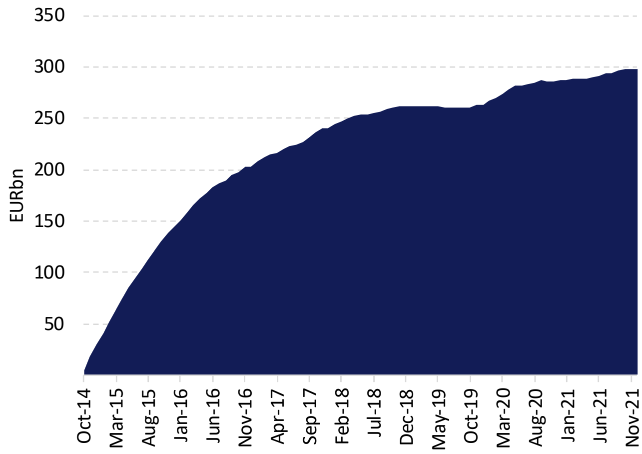
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

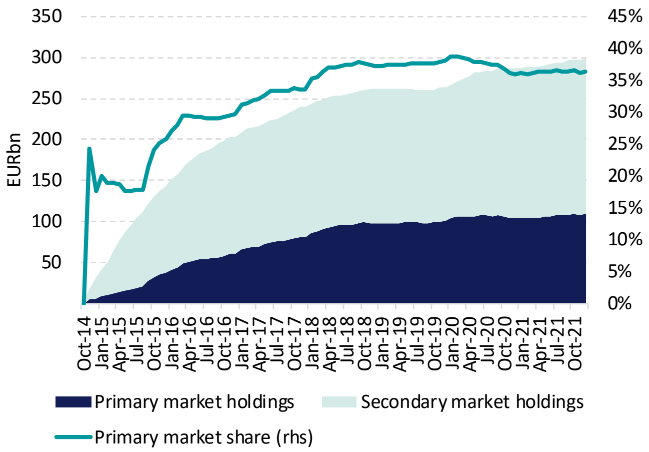
Weekly purchases



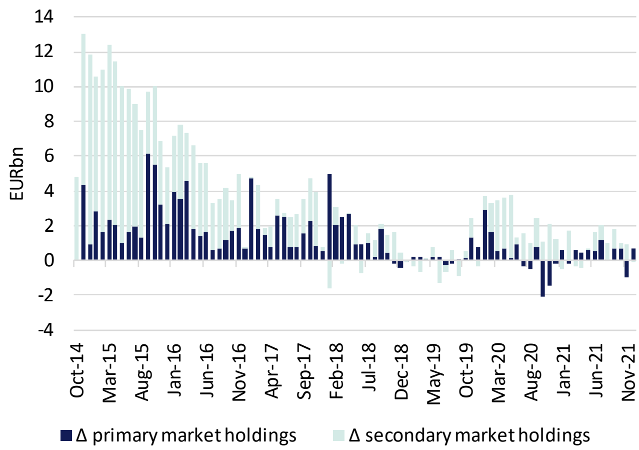
Development of CBPP3 volume



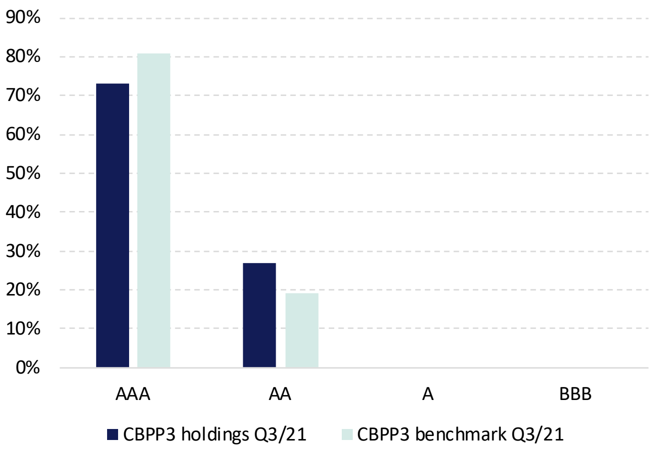
Primary and secondary market holdings



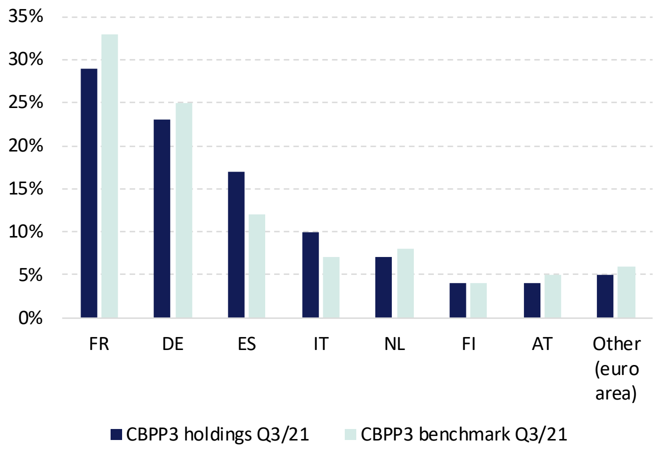
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



Distribution of CBPP3 by country of risk

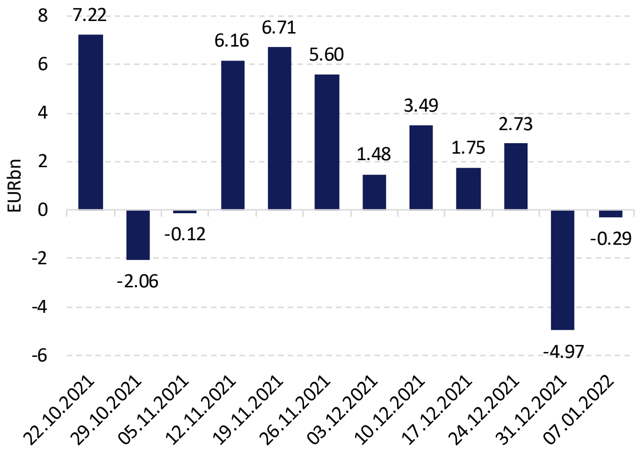


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

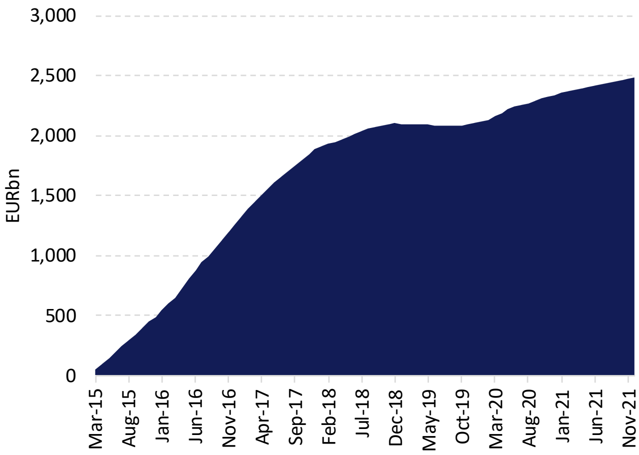
NORD/LB

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



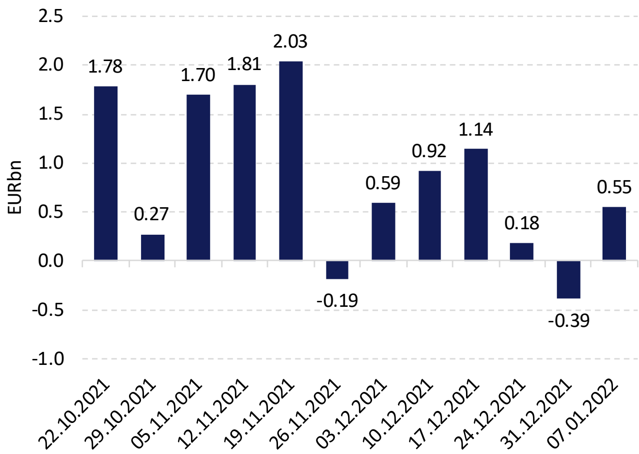
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	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%	72,409	71,067	1,342	7.5	7.6	-0.1
BE	3.4%	91,027	88,460	2,567	8.0	10.2	-2.2
CY	0.2%	4,144	5,225	-1,081	9.9	8.8	1.1
DE	24.3%	634,814	640,071	-5,257	6.6	7.6	-1.0
EE	0.3%	408	6,840	-6,432	9.2	7.5	1.7
ES	11.0%	305,333	289,536	15,797	8.0	8.4	-0.4
FI	1.7%	41,170	44,600	-3,430	6.9	7.7	-0.8
FR	18.8%	516,032	495,913	20,119	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,029	41,116	-87	8.5	10.1	-1.6
IT	15.7%	429,415	412,490	16,925	7.1	7.9	-0.8
LT	0.5%	5,493	14,053	-8,560	10.2	10.6	-0.4
LU	0.3%	3,870	7,998	-4,128	5.6	7.2	-1.7
LV	0.4%	3,344	9,461	-6,117	11.3	10.4	0.9
MT	0.1%	1,362	2,547	-1,185	9.5	9.2	0.3
NL	5.4%	126,966	142,294	-15,328	7.7	9.0	-1.4
PT	2.2%	51,035	56,829	-5,794	7.0	7.2	-0.2
SI	0.4%	10,349	11,691	-1,342	9.9	10.2	-0.3
SK	1.1%	17,034	27,807	-10,773	8.2	8.3	-0.1
SNAT	10.0%	275,874	263,111	12,763	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,631,107**	**2,631,107**	**0**	**7.3**	**8.2**	**-0.9**

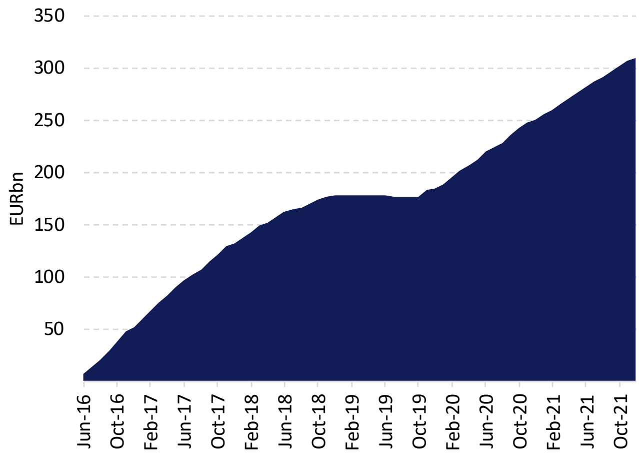
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

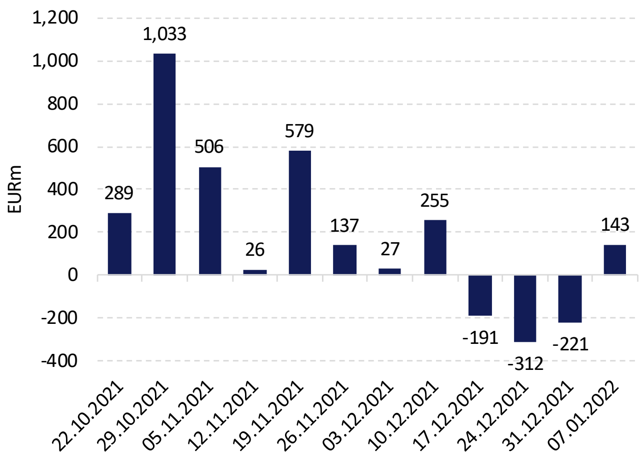


Development of CSPP volume

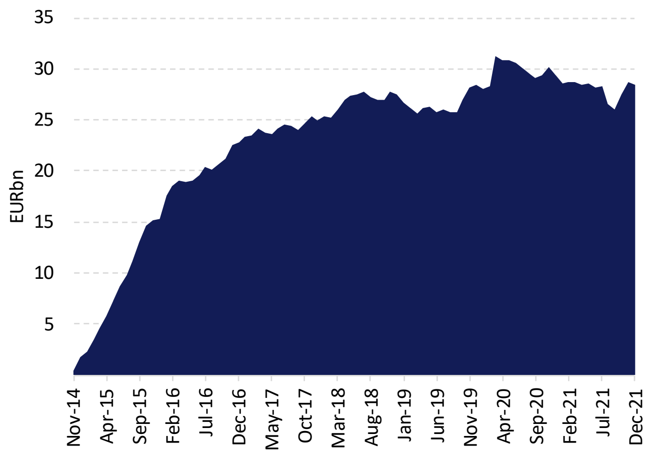


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



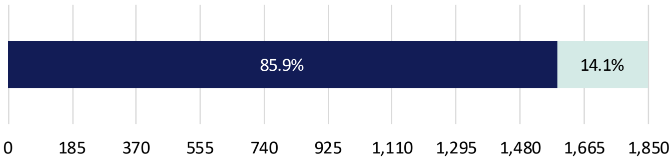
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Nov-21	1,548,190
Dec-21	1,597,565
Δ	+49,375

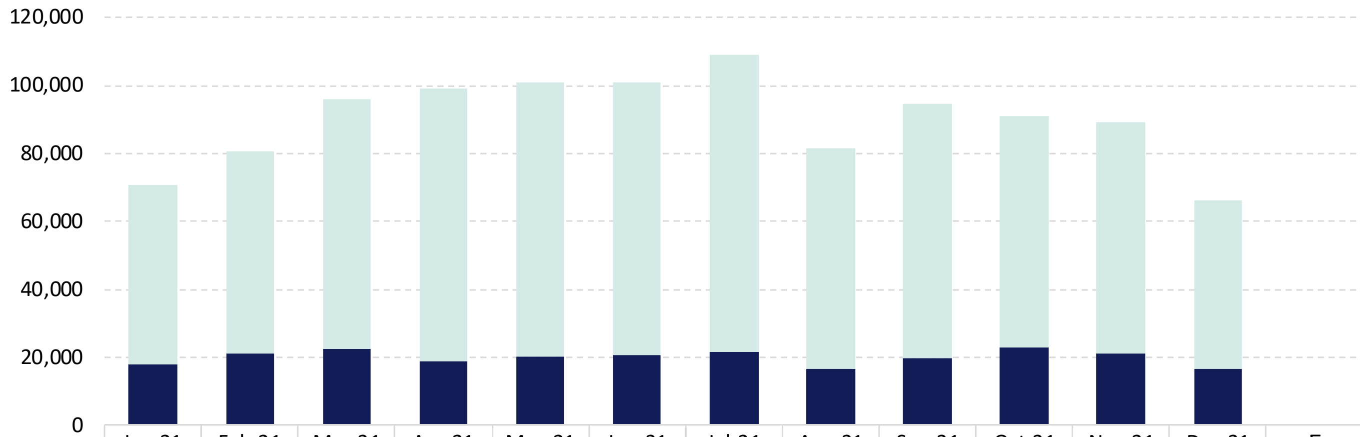
Volume already invested (in EURbn)



Estimated portfolio development

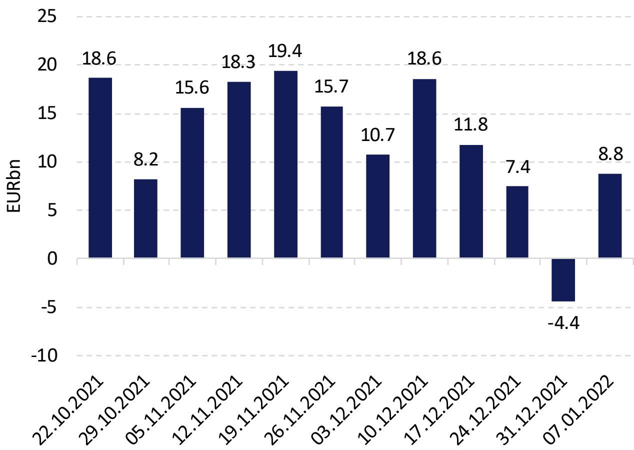
Assumed pace of purchases	Weekly net purchase volume	PEPP limit hit in ...
Average weekly net purchase volume so far	EUR 17.1bn	15 weeks (22.04.2022)

Monthly net purchases (in EURm)

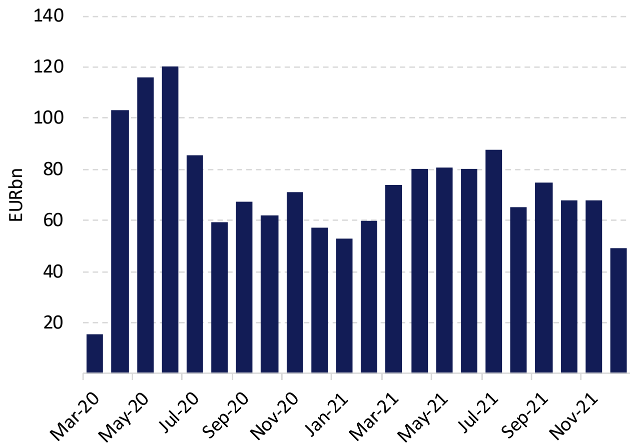


	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
∑	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,244	66,044	1,080,31
PEPP	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	840,400
APP	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,199	16,669	239,911

Weekly purchases



Development of PEPP volume

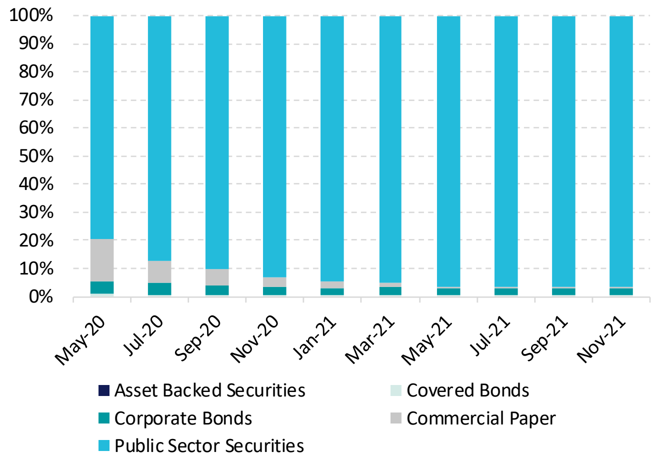


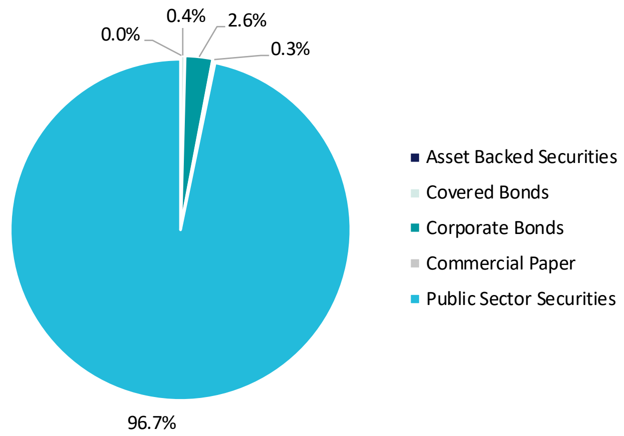
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

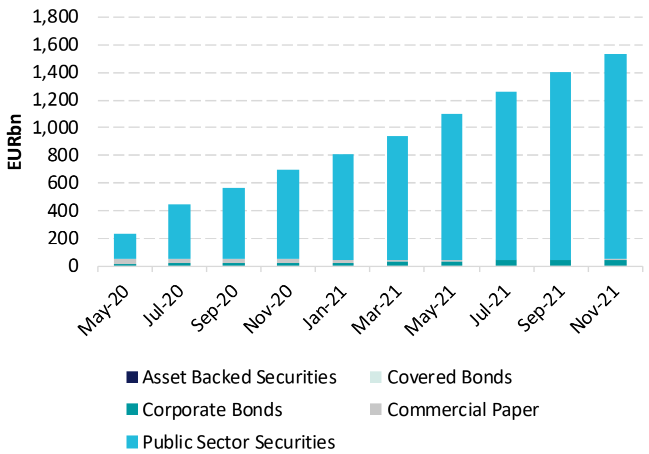
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Sep-21	0	6,079	37,139	3,314	1,353,076	1,399,609
Nov-21	0	6,079	39,871	4,032	1,485,567	1,535,549
Δ	0	0	+2,732	+717	+132,491	+135,940

Portfolio structure

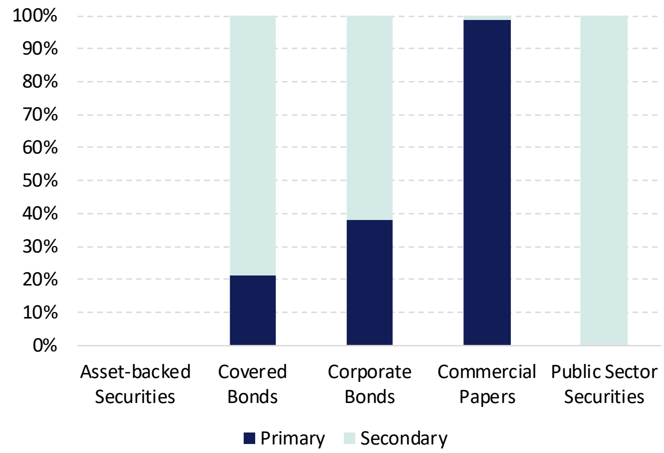




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

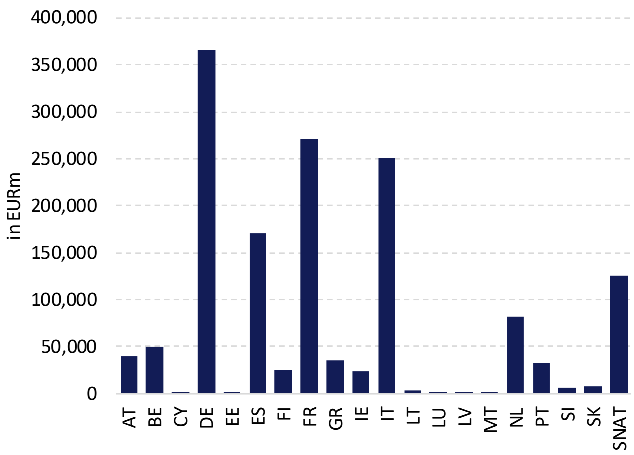
Nov-21	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,781	15,101	24,770	3,989	43
Share	0.0%	0.0%	21.4%	78.7%	37.9%	62.1%	98.9%	1.1%

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

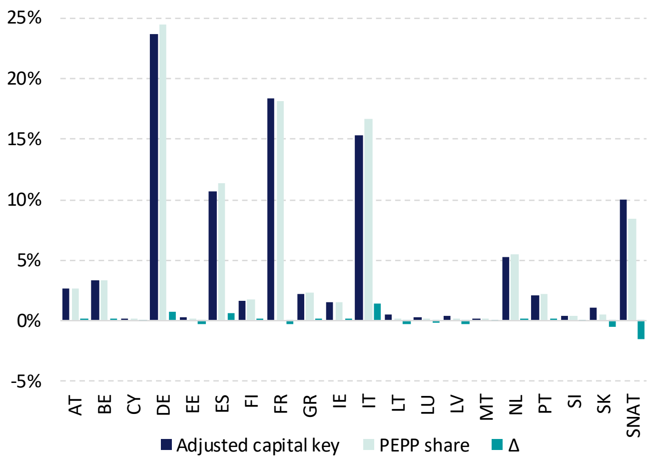
Breakdown of public sector securities under the PEPP

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	40,331	2.6%	2.7%	0.1%	8.4	7.0	1.3
BE	50,666	3.3%	3.4%	0.1%	6.7	9.1	-2.4
CY	2,418	0.2%	0.2%	0.0%	8.7	8.1	0.6
DE	366,630	23.7%	24.5%	0.7%	6.2	6.8	-0.6
EE	256	0.3%	0.0%	-0.2%	8.5	6.8	1.7
ES	170,306	10.7%	11.4%	0.6%	8.0	7.6	0.4
FI	25,499	1.7%	1.7%	0.0%	7.1	7.4	-0.3
FR	271,410	18.4%	18.1%	-0.3%	8.2	7.5	0.7
GR	34,935	2.2%	2.3%	0.1%	8.9	9.6	-0.7
IE	23,549	1.5%	1.6%	0.0%	8.8	9.1	-0.3
IT	250,889	15.3%	16.7%	1.5%	7.1	6.9	0.2
LT	2,939	0.5%	0.2%	-0.3%	11.0	10.1	0.9
LU	1,904	0.3%	0.1%	-0.2%	6.5	6.1	0.4
LV	1,625	0.4%	0.1%	-0.2%	9.5	9.2	0.3
MT	480	0.1%	0.0%	-0.1%	10.8	9.1	1.7
NL	81,494	5.3%	5.4%	0.2%	7.4	8.6	-1.2
PT	33,097	2.1%	2.2%	0.1%	6.8	7.2	-0.4
SI	6,143	0.4%	0.4%	0.0%	9.4	9.2	0.1
SK	7,262	1.0%	0.5%	-0.5%	7.5	8.5	-1.0
SNAT	126,308	10.0%	8.4%	-1.6%	10.5	8.5	2.0
Total / Avg.	**1,498,141**	**100.0%**	**100.0%**	**0.0%**	**7.6**	**7.5**	**0.1**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



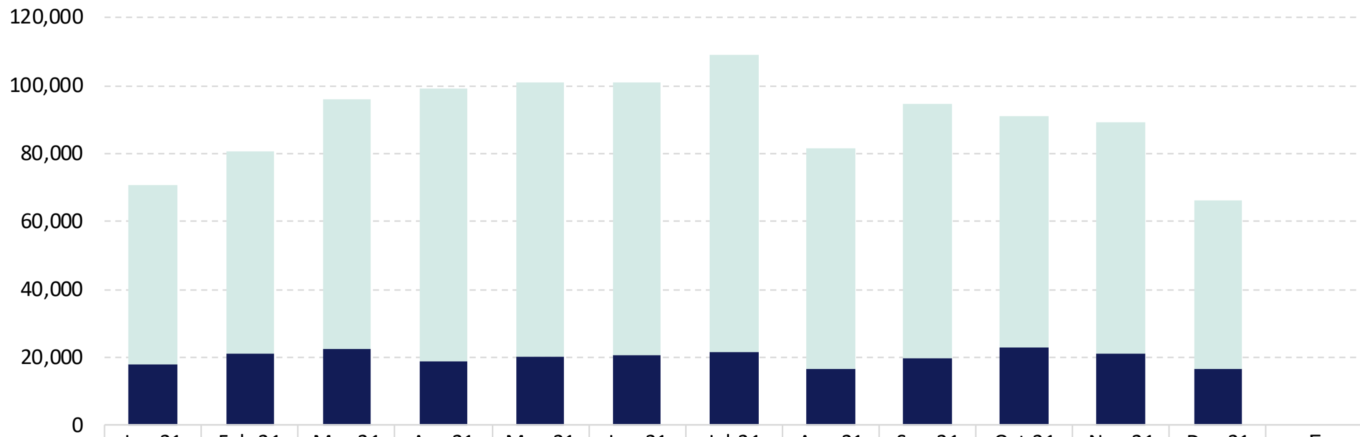
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

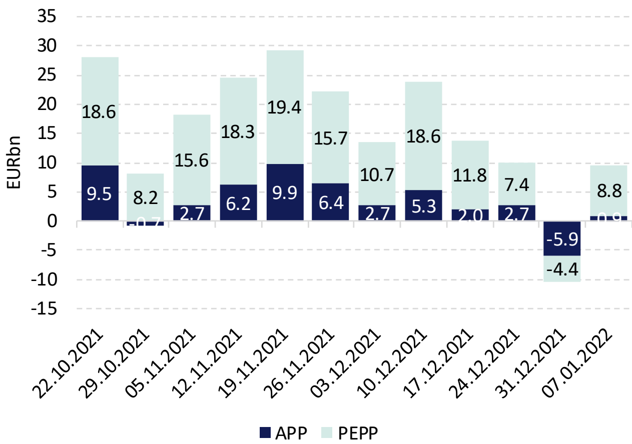
	APP	PEPP	APP & PEPP
Nov-21	3,112,499	1,548,190	4,660,689
Dec-21	3,123,456	1,597,565	4,721,021
Δ	+16,669	+49,375	+66,044

Monthly net purchases (in EURm)

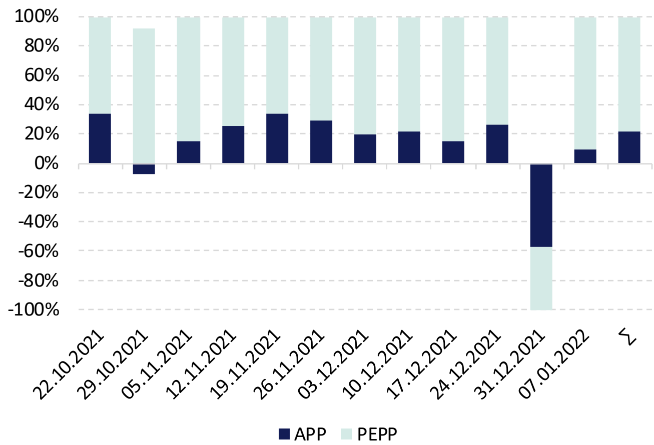


	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
∑	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,244	66,044	1,080,31
PEPP	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	840,400
APP	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,199	16,669	239,911

Weekly purchases



Distribution of weekly purchases

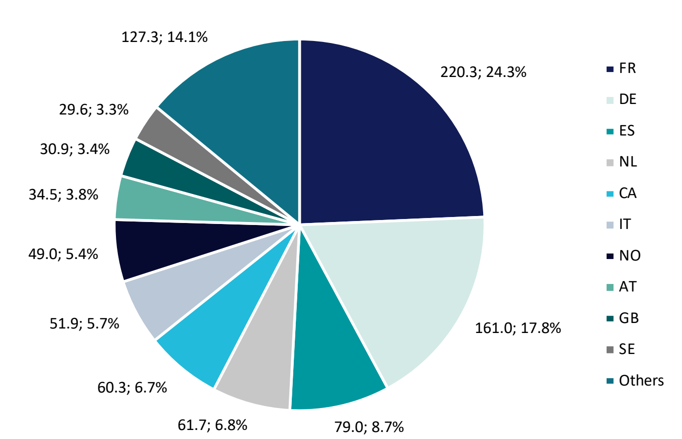


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

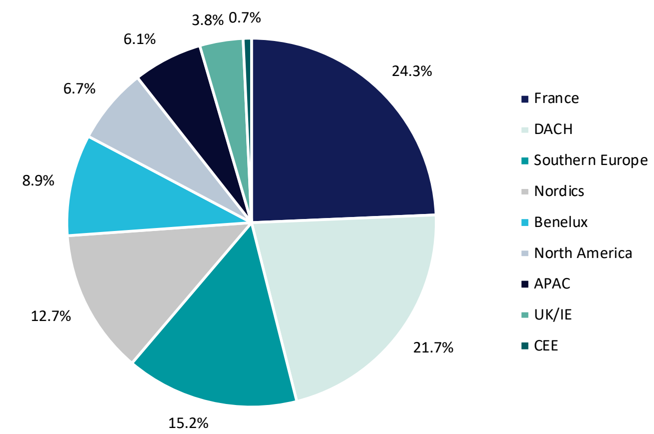
NORD/LB

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



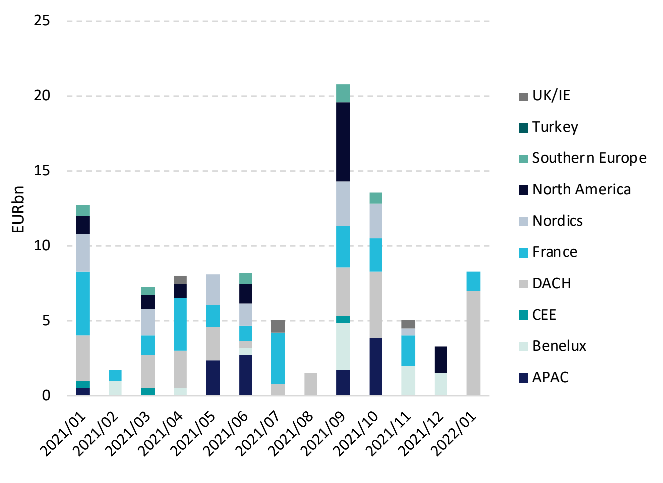
EUR benchmark volume by region (in EURbn)



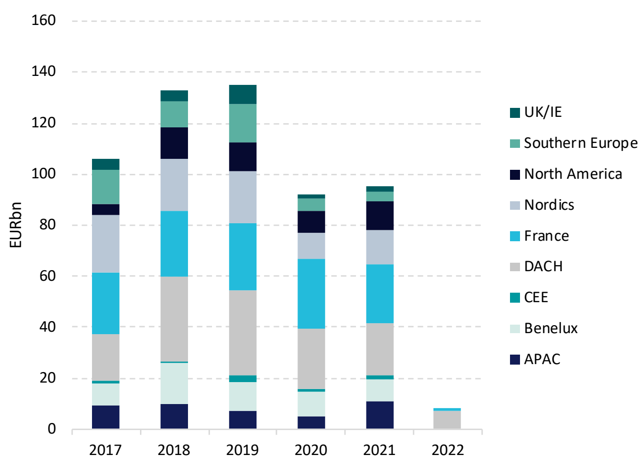
Top-10 jurisdictions

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	220.3	211	11	0.94	10.2	5.5	0.92
2	DE	161.0	236	16	0.62	8.4	4.6	0.42
3	ES	79.0	64	4	1.13	11.7	3.6	1.82
4	NL	61.7	64	0	0.91	11.6	7.6	0.75
5	CA	60.3	52	0	1.12	6.1	3.1	0.22
6	IT	51.9	61	1	0.82	9.0	3.9	1.30
7	NO	49.0	57	9	0.86	7.3	3.9	0.38
8	AT	34.5	63	2	0.54	9.9	6.3	0.58
9	GB	30.9	37	1	0.86	8.5	3.5	0.91
10	SE	29.6	36	0	0.82	7.6	3.5	0.41

EUR benchmark issue volume by month

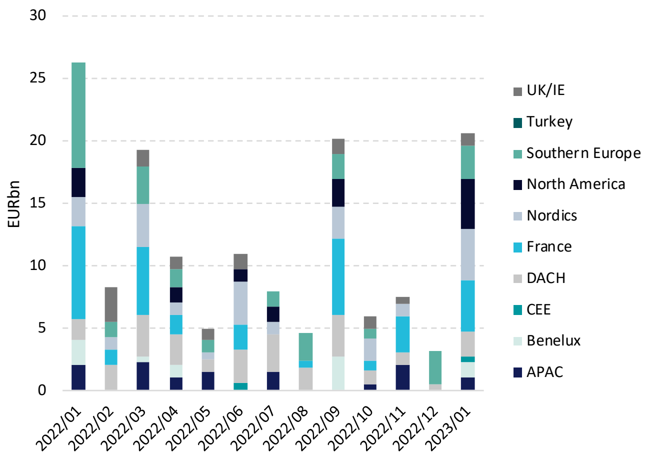


EUR benchmark issue volume by year

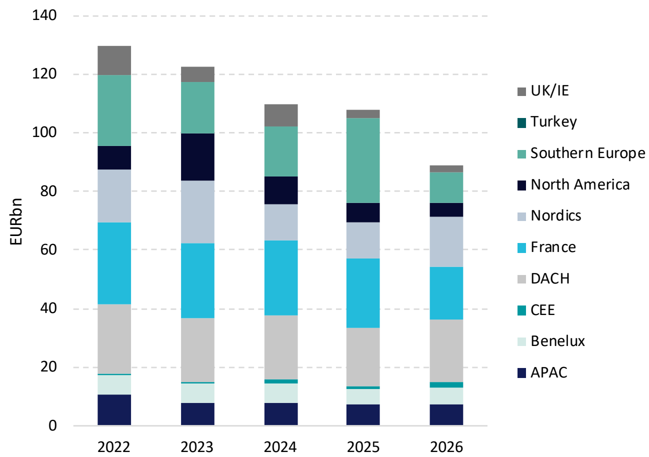


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

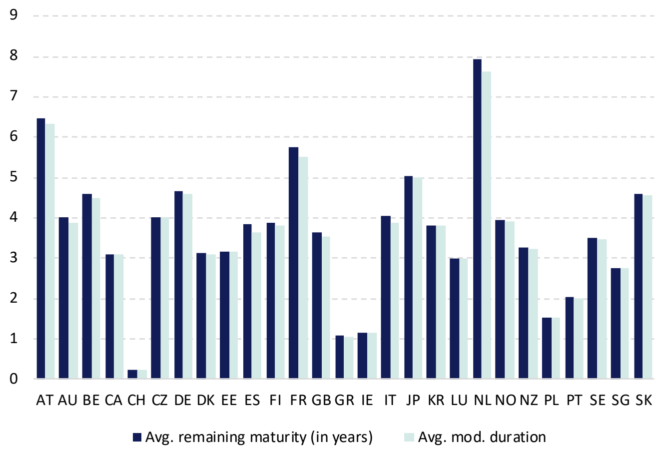
EUR benchmark maturities by month



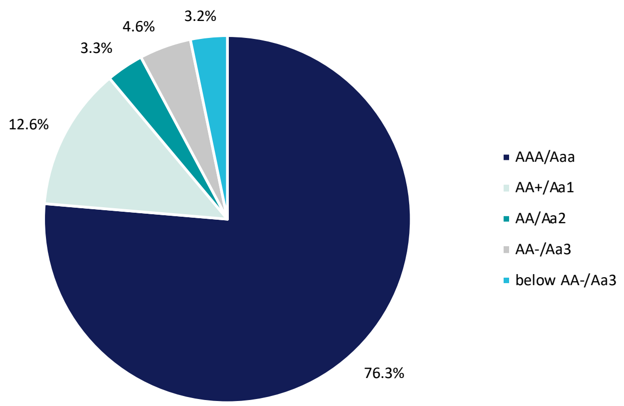
EUR benchmark maturities by year



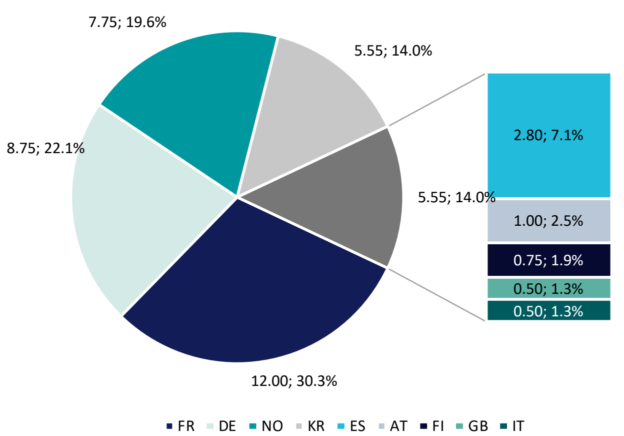
Modified duration and time to maturity by country



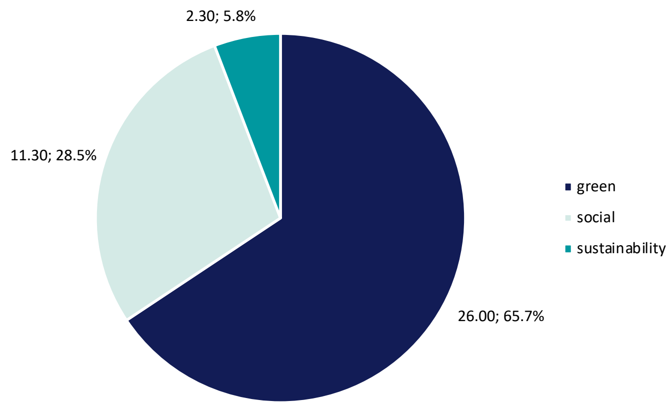
Rating distribution (volume weighted)



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

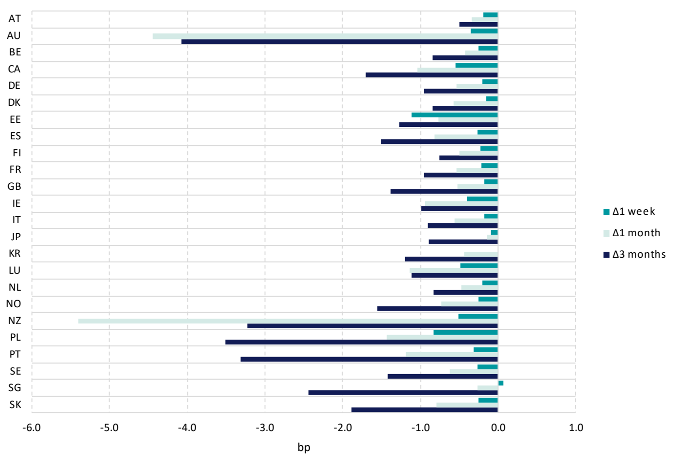


EUR benchmark volume (ESG) by type (in EURbn)

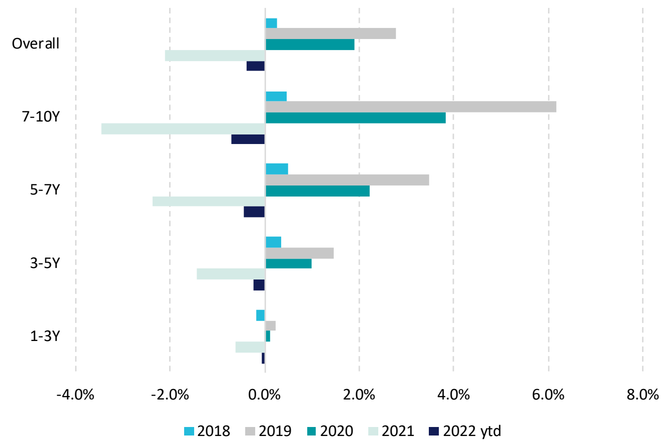


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

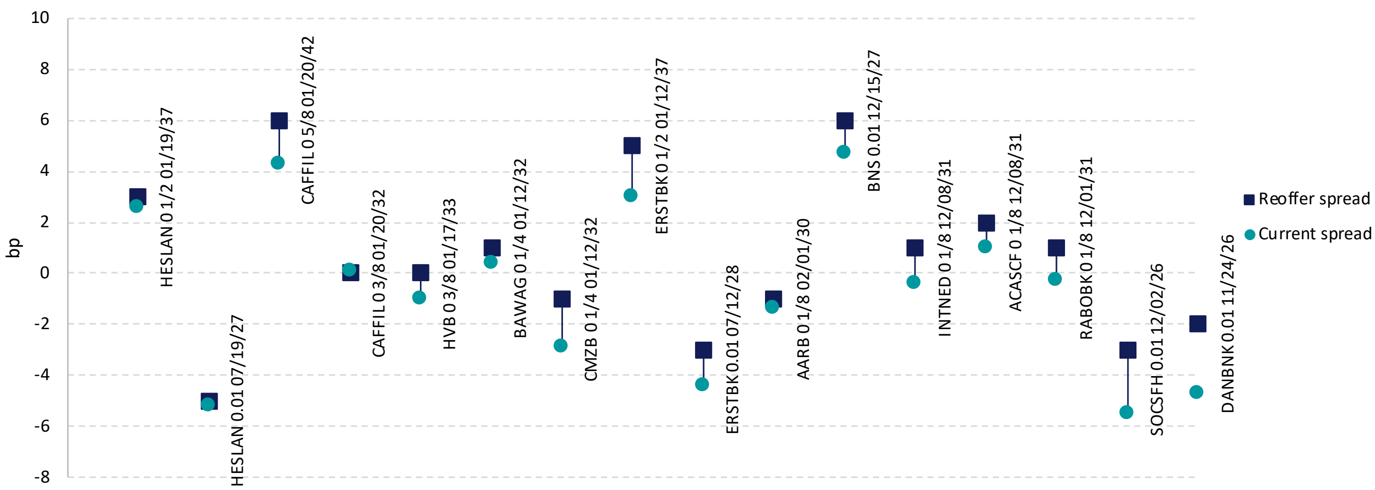
Spread development by country



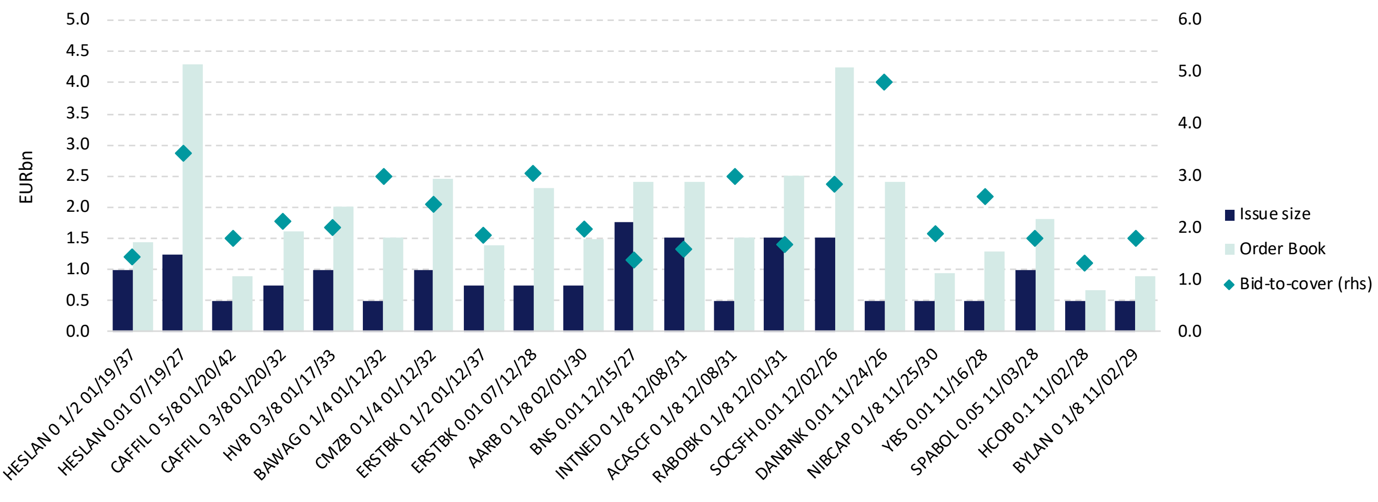
Covered bond performance (Total return)



Spread development (last 15 issues)



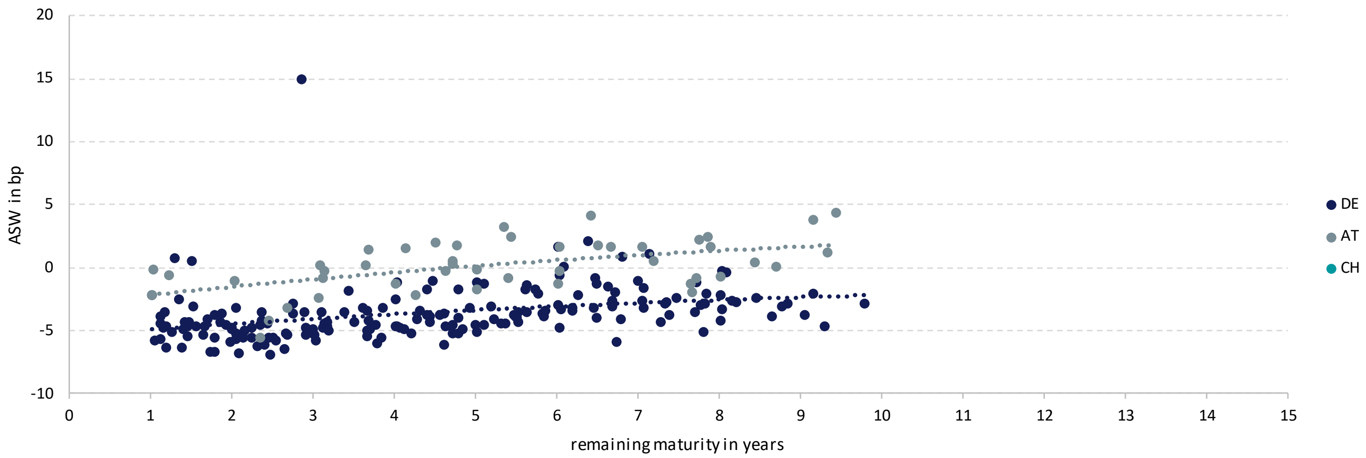
Order books (last 15 issues)



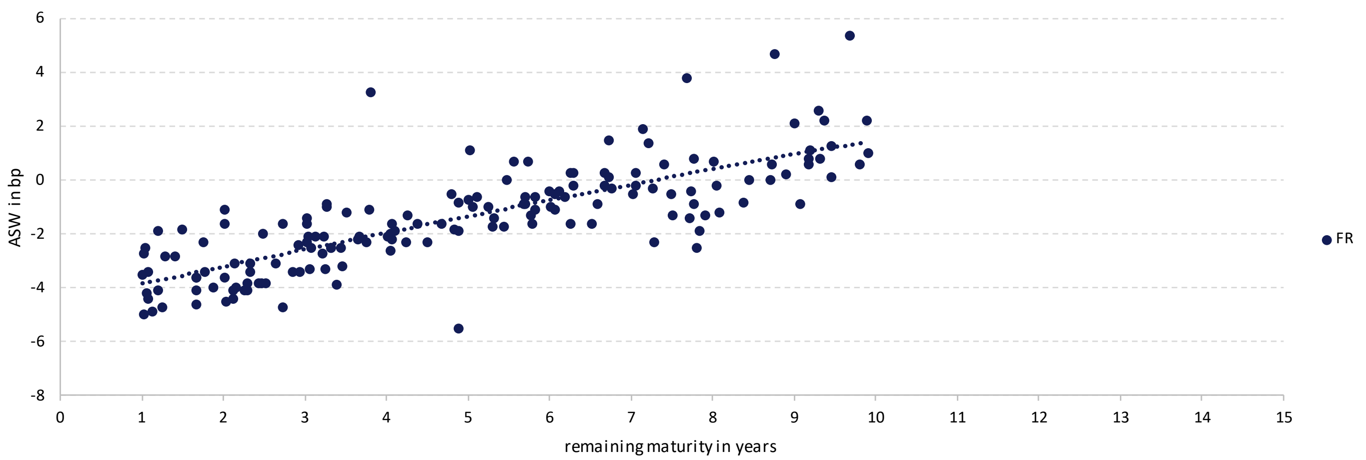
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

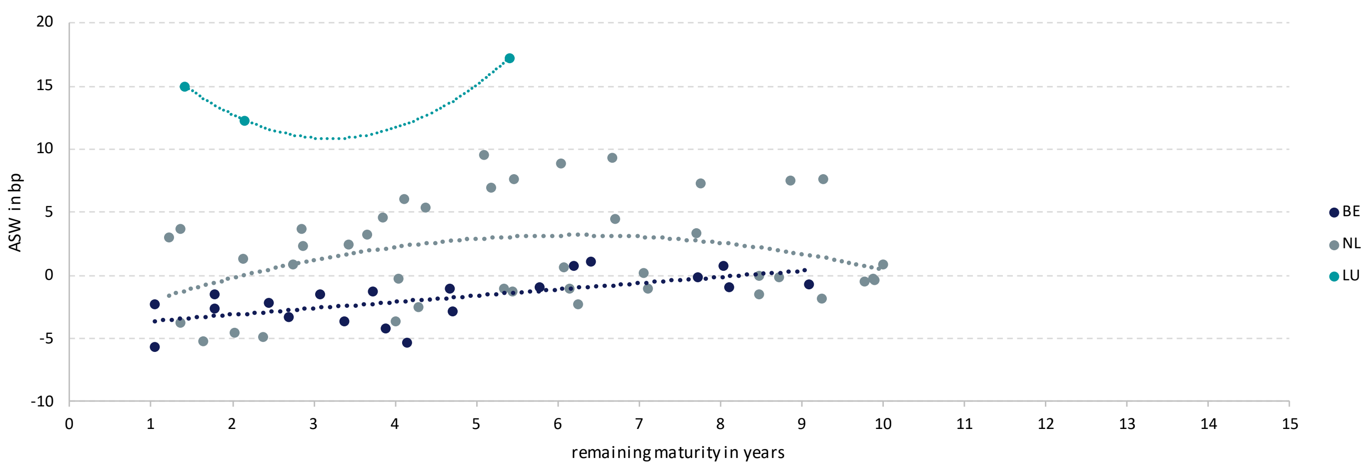
DACH



France

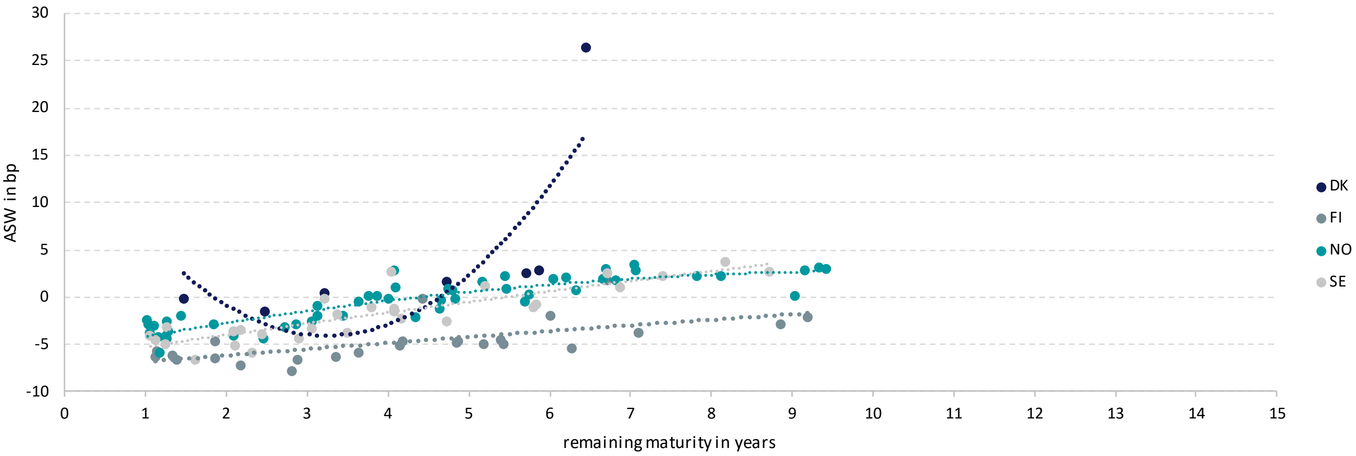


Benelux

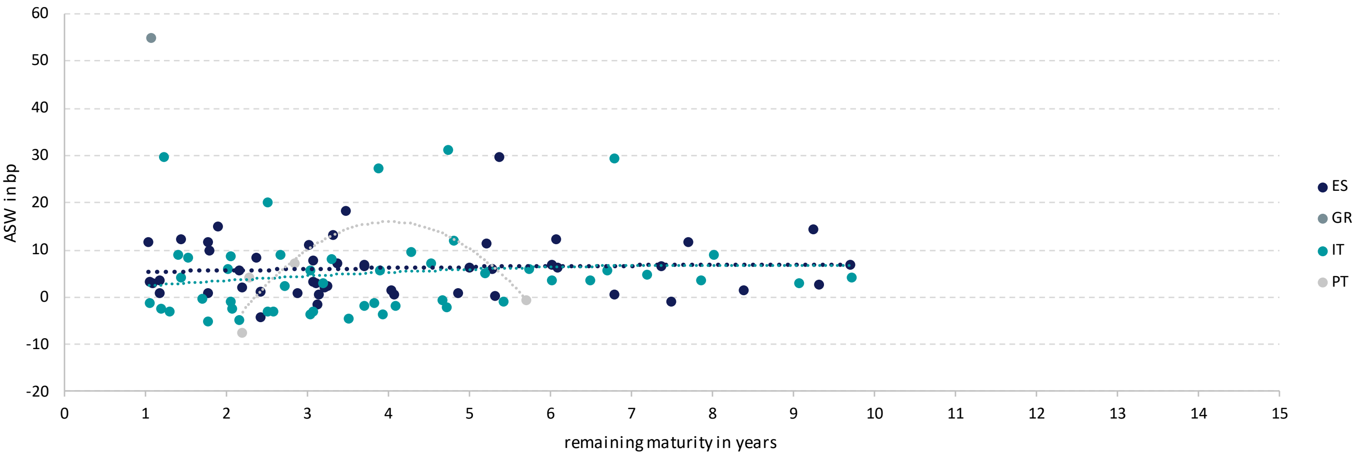


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

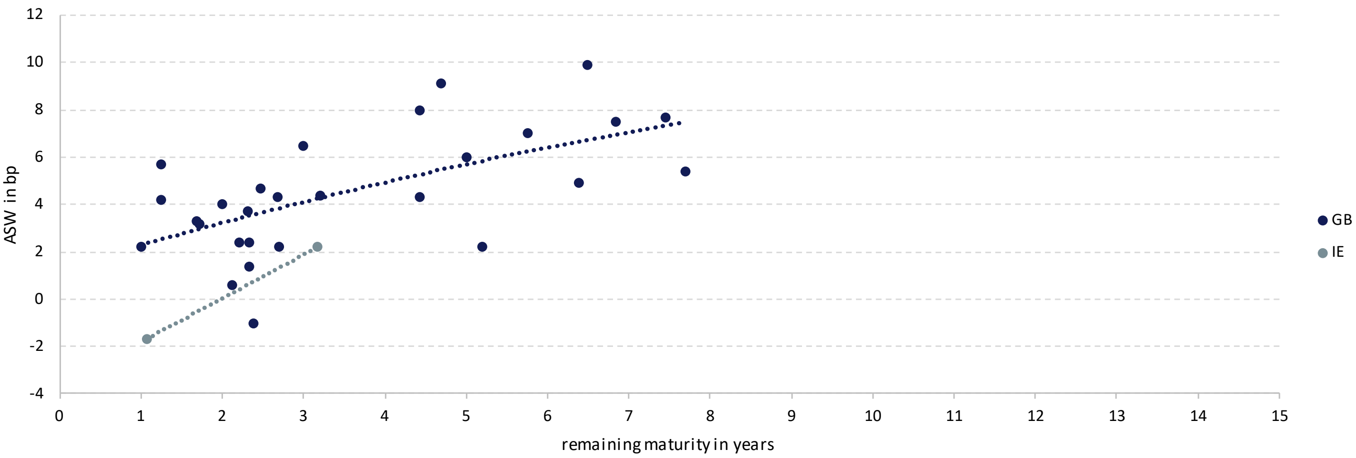
Nordics



Southern Europe

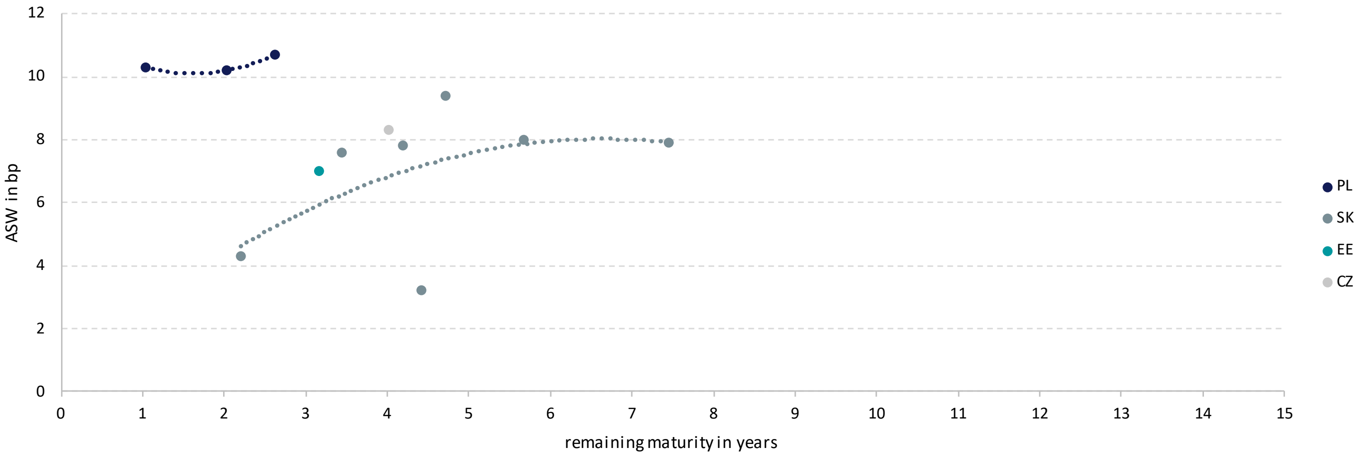


UK/IE

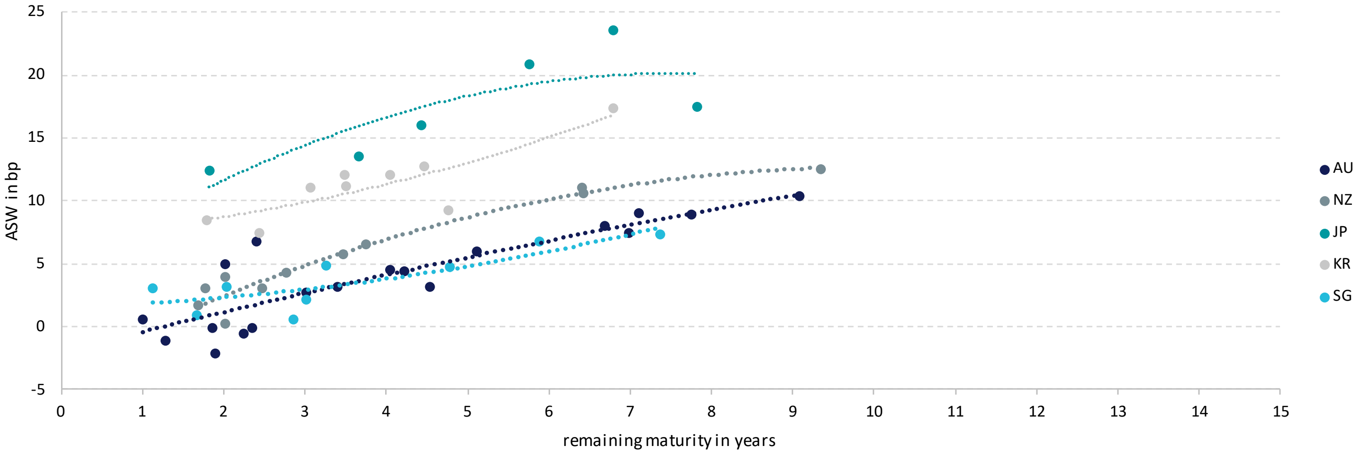


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

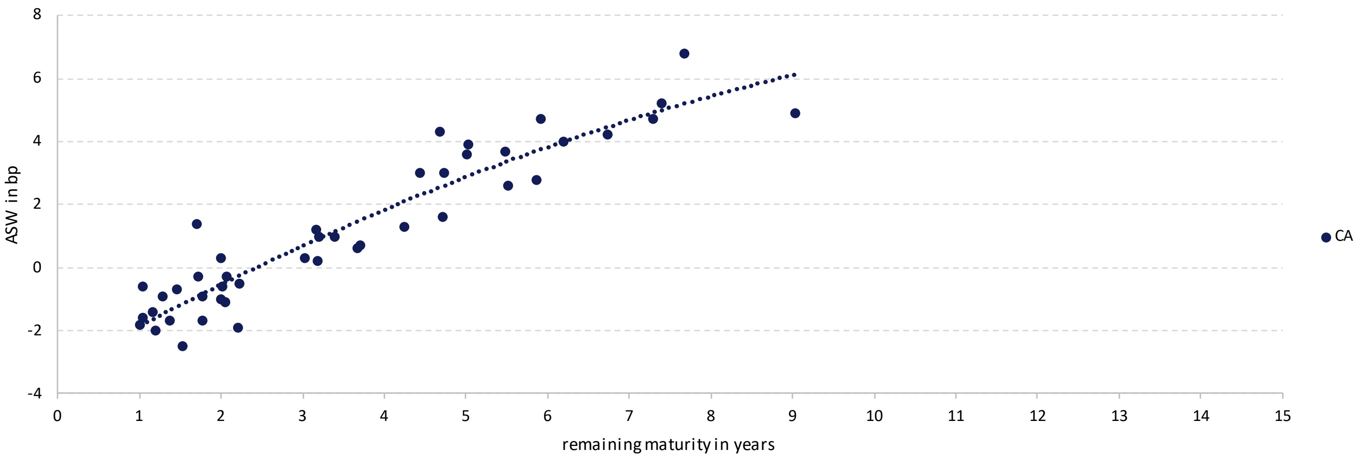
CEE



APAC



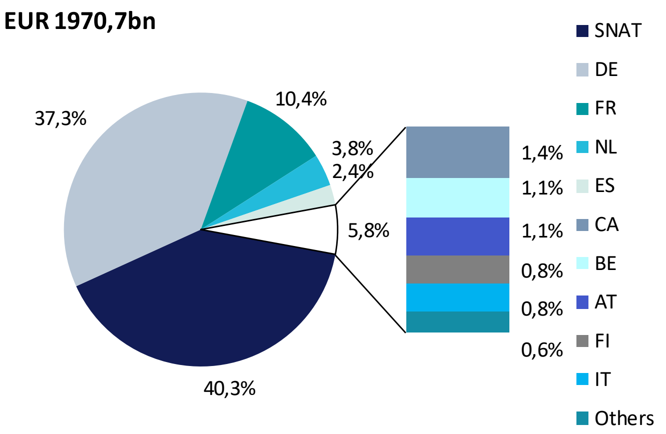
North America



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

Charts & Figures
SSA/Public Issuers

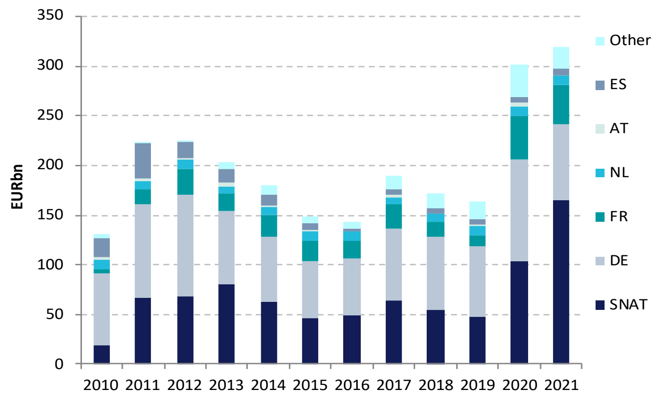
Outstanding volume (bmk)



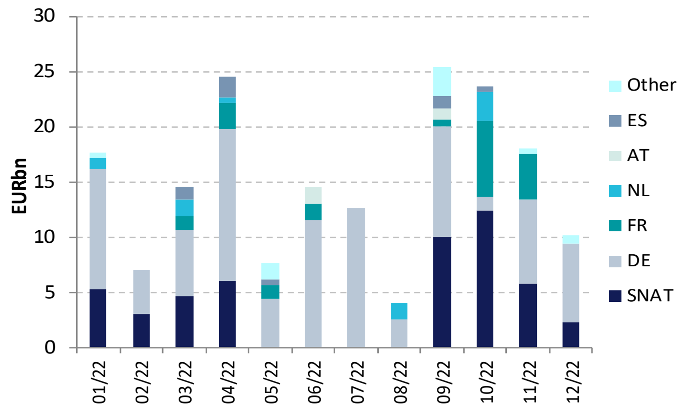
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	782,9	194	4,0	8,6
DE	732,1	573	1,3	6,8
FR	205,0	145	1,4	5,7
NL	70,9	68	1,0	6,6
ES	46,8	59	0,8	5,1
CA	28,5	20	1,4	5,3
BE	21,7	25	0,9	13,9
AT	21,2	23	0,9	5,0
FI	16,0	20	0,8	6,1
IT	15,0	19	0,8	5,7

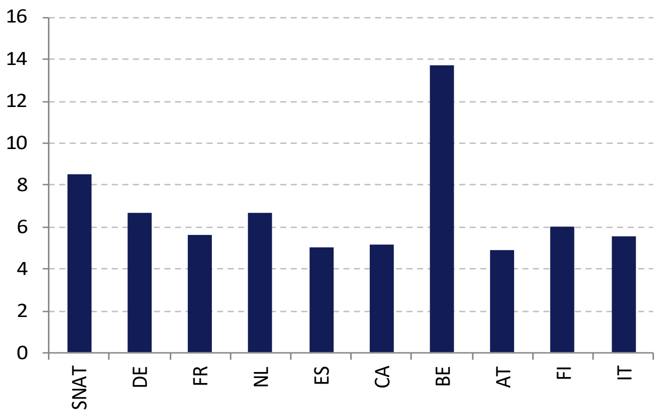
Issue volume by year (bmk)



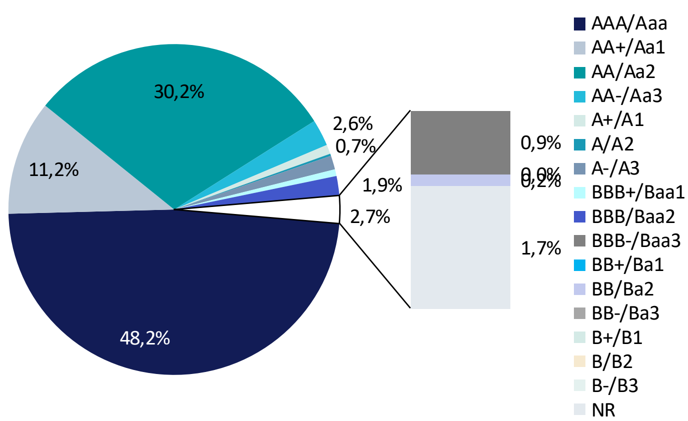
Maturities next 12 months (bmk)



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

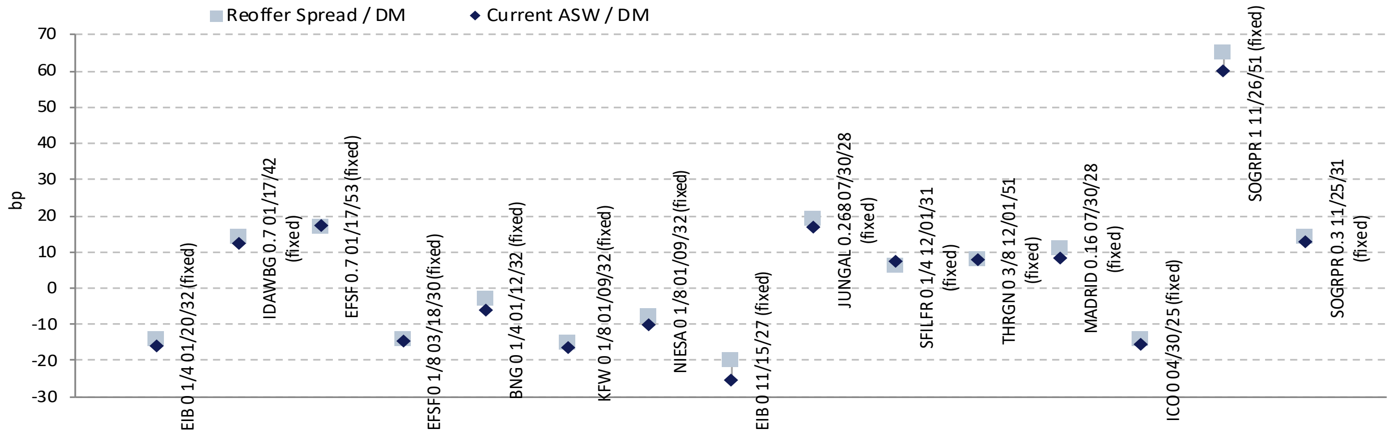


Rating distribution (vol. weighted)

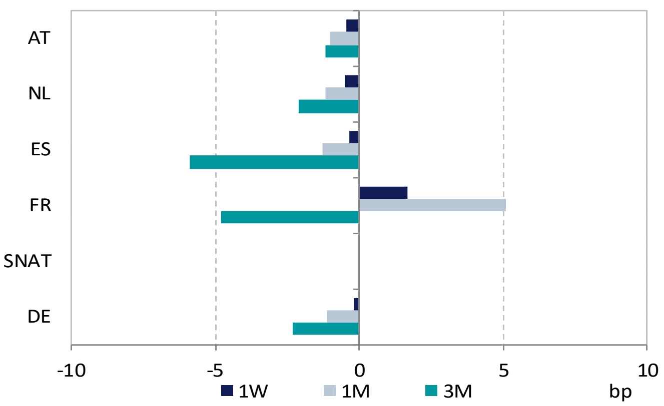


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

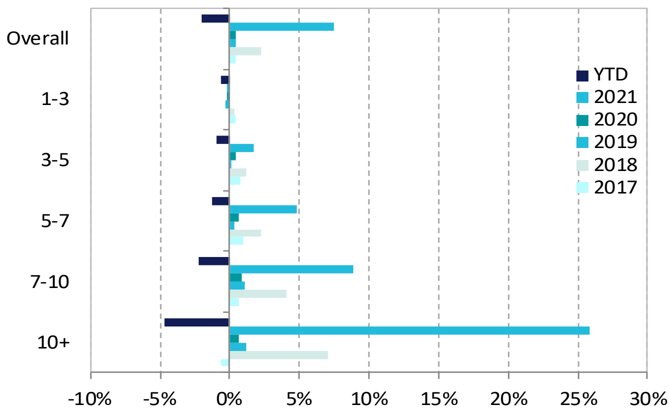
Spread development (last 15 issues)



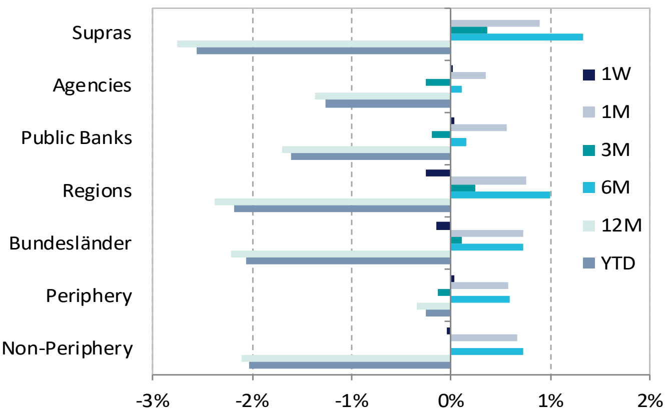
Spread development by country



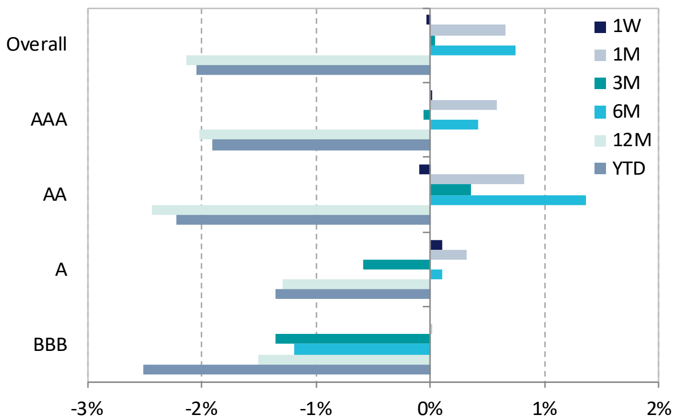
Performance (total return)



Performance (total return) by regions

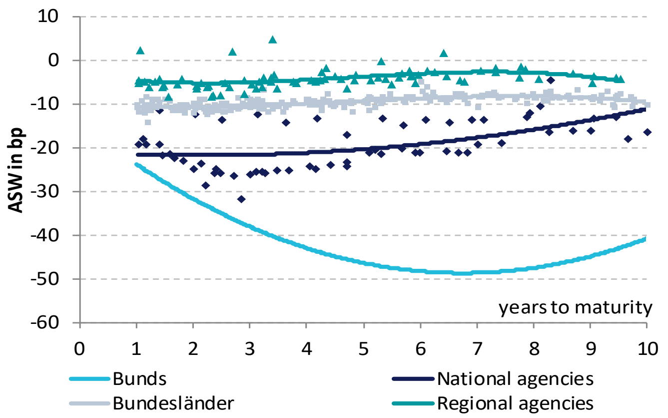


Performance (total return) by rating

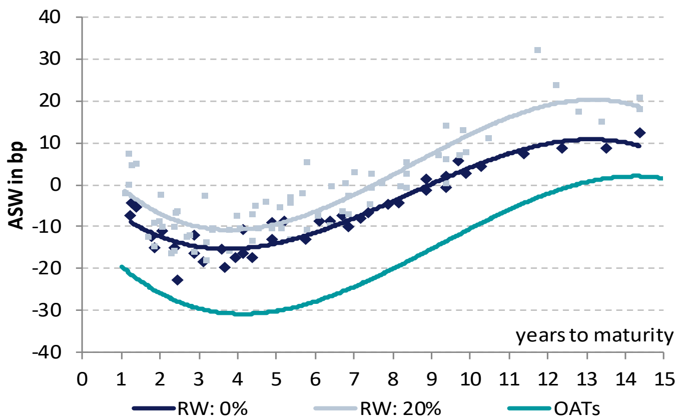


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

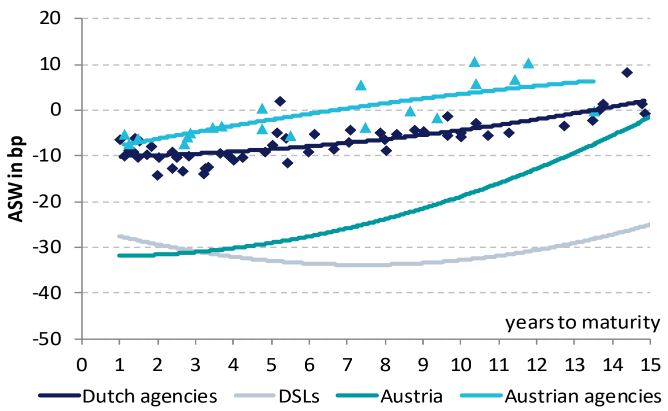
Germany (by segments)



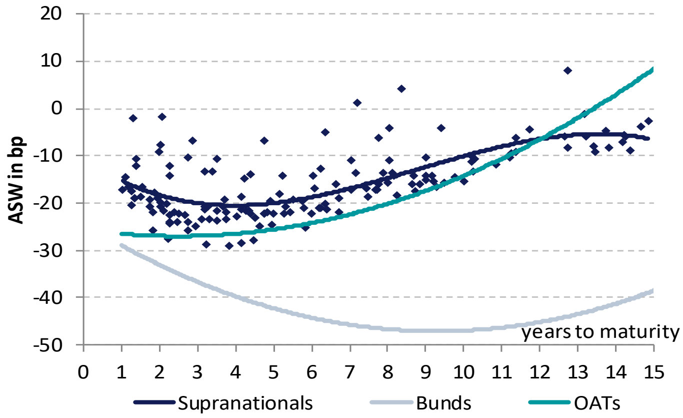
France (by risk weight)



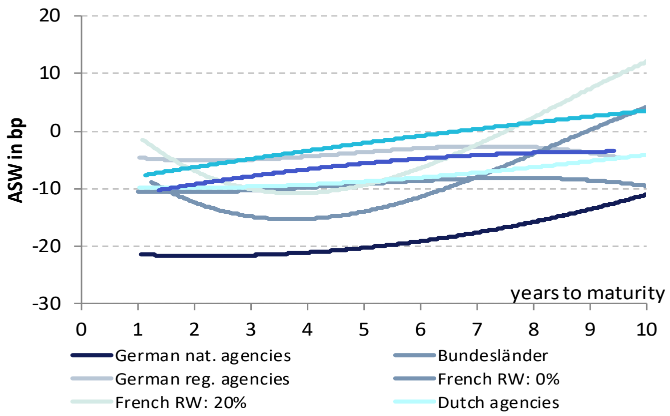
Netherlands & Austria



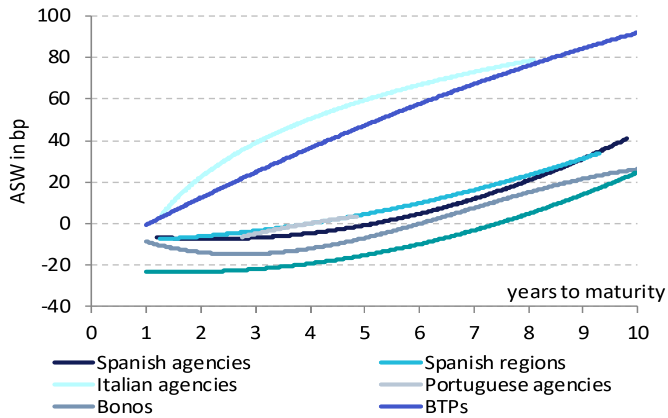
Supranationals



Core



Periphery



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

NORD/LB

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
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
35/2021 ♦ 10 November	▪ PEPP approaching notional end – will the APP be pepped up? ▪ Spain's major move – will the amended covered bond legislation breathe new life into the market?
34/2021 ♦ 03 November	▪ Repayment structures on the covered bond market: EU harmonisation is already leaving its mark ▪ Beyond Bundeslaender: Spanish regions in the spotlight
33/2021 ♦ 27 October	▪ Insurance firms as covered bond investors: A look at Solvency II and EIOPA statistics ▪ The Scope rating approach
32/2021 ♦ 20 October	▪ ECB preview: interim step before a landmark December? ▪ ECBC publishes annual statistics for 2020 ▪ Covered bonds in the context of the ECB collateral framework
31/2021 ♦ 22 September	▪ Covered bond primary market: a September to remember ▪ Announcement: Issuer Guide German Laender 2021
30/2021 ♦ 15 September	▪ Transparency requirements § 28 PfandBG Q2 2021 ▪ Fitch: rating approach covered bonds ▪ Update: Joint Laender (Ticker: LANDER)
29/2021 ♦ 08 September	▪ New dynamic on the Canadian covered bond market: Two debut EUR issuers ▪ Development of the German property market ▪ NGEU in the starting blocks: 3, 2, 1 … EU auctions!
28/2021 ♦ 01 September	▪ ECB preview: focus on the pace of PEPP purchases? ▪ France – largest jurisdiction in EUR benchmark bond segment: a covered bond overview of the "Grande Nation"
27/2021 ♦ 28 July	▪ NORD/LB Issuer Guide Covered Bonds 2021: A constant during turbulent times ▪ Beyond Bundeslaender: Madeira and the Azores
26/2021 ♦ 21 July	▪ Summer break just around the corner – a glance at covered bonds in USD and GBP

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

Risk weights and LCR levels of covered bonds

Transparency requirements §28 PfandBG

Transparenzvorschrift §28 PfandBG Sparkassen (German only)

SSA/Public Issuers:

Issuer Guide – German Bundeslaender 2021

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – Supranationals & Agencies 2019

Issuer Guide – Down Under 2019

Fixed Income:

ESG update

Analysis of ESG reporting

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 corona pandemic emergency

Appendix
Contacts at NORD/LB

Markets Strategy & Floor Research

Melanie Kiene
Banks
+49 511 361-4108
+49 172 169 2633
melanie.kiene@nordlb.de

Dr Norman Rudschuck
SSA/Public Issuers
+49 511 361-6627
+49 152 090 24094
norman.rudschuck@nordlb.de

Dr Frederik Kunze
Covered Bonds
+49 511 361-5380
+49 172 354 8977
frederik.kunze@nordlb.de

Sales

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

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

Disclaimer

The present report (hereinafter referred to as "information") was drawn up by NORDDEUTSCHE LANDESBANK GIROZENTRALE (NORD/LB). The supervisory authorities responsible for NORD/LB are the European Central Bank (ECB), Sonnemannstraße 20, D-60314 Frankfurt am Main, and the Federal Financial Supervisory Authority in Germany (Bundesanstalt für Finanzdienstleitungsaufsicht; BaFin), Graurheindorfer Str. 108, D-53117 Bonn and Marie-Curie-Str. 24-28, D-60439 Frankfurt am Main. The present report and the products and services described herein have not been reviewed or approved by the relevant supervisory authority.

The present information is addressed exclusively to Recipients in Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Poland, Portugal, Singapore, Portugal, Spain, Sweden, Switzerland, the Republic of China (Taiwan), Thailand, the United Kingdom and Vietnam (hereinafter referred to as "Relevant Persons" or "Recipients"). The contents of the information are disclosed to the Recipients on a strictly confidential basis and, by accepting such information, the Recipients shall agree that they will not forward it to third parties, copy and/or reproduce this information without the prior written consent of NORD/LB. The present information is addressed solely to the Relevant Persons and any parties other than the Relevant Persons shall not rely on the information contained herein. In particular, neither this information nor any copy thereof shall be forwarded or transmitted to the United States of America or its territories or possessions, or distributed to any employees or affiliates of Recipients resident in these jurisdictions.

The present information does not constitute financial analysis within the meaning of Art. 36 (1) of the Delegate Regulation (EU) 2017/565, but rather represents a marketing communication for your general information **within the meaning of Art. 36 (2) of this Regulation. Against this background, NORD/LB expressly points out that this information has not been prepared in accordance with legal provisions promoting the independence of investment research and is not subject to any prohibition of trading following the dissemination of investment research.** This information also constitutes an investment recommendation or investment strategy recommendation within the meaning of Market Abuse Regulation (EU) No. 596/2014 and complies with the applicable provisions of this regulation and Delegated Regulation (EU) 2016/958 as well as the Securities Trading Act (see the supplementary details at the end of this information).

This information has been prepared by the Markets Strategy & Floor Research division, which is organisationally assigned to the Markets trading division within NORD/LB and which offers comprehensive securities services to the clients of the bank. Information may therefore be exchanged between the Floor Research and Trading divisions which may influence the content of this information. Against this background, the possibility cannot be ruled out that NORD/LB has its own holdings in the financial instruments described herein or in the issuers described herein and participates in the issue of such financial instruments as well as providing other services to such issuers or has other financial interests in these financial instruments or issuers. It also cannot be ruled out that the remuneration of the employees of the Markets Strategy & Floor Research division is indirectly linked to the overall performance of the Markets division, however, a direct linking of remuneration to transactions in investment services or trading fees is prohibited. Against this background, there are potential conflicts of interest that could fundamentally influence the objectivity of the recommendations contained herein.
NORD/LB has, however, taken extensive precautions to deal with potential conflicts of interest and to avoid them:

Arrangements for dealing with and avoiding conflicts of interest and for the confidential treatment of sensitive client and business data:
Business areas that may have regular access to sensitive and confidential information are classified as confidentiality areas by the Compliance Office and separated from other areas in terms of function, location and technical data processing measures. The trading division (Markets) is classified as such a confidentiality area. The exchange of information between individual confidentiality areas requires the approval of the Compliance Office.
The forwarding of confidential information which may have an impact on securities' prices is monitored by the NORD/LB Compliance Office, which is independent of the trading, business and settlement departments. The Compliance Office can issue any trading prohibitions and restrictions which may be necessary to ensure that information which may have an influence on securities' prices is not misused and to prevent confidential information from being passed on to areas which may only use publicly accessible information. Employees of the Markets Strategy & Floor Research unit are obliged to inform the Compliance Office of all transactions (including external) that they carry out for their own account or on behalf of a third party or in the interests of a third party. This will enable the Compliance Office to identify any unauthorised transactions by these employees.
Further information on this can be found in our Conflict of Interest Policy, which is available on request from the NORD/LB Compliance Office.

Supplementary important information:
This information and the details contained herein have been prepared and are provided for information purposes only. It is not intended to be an incentive for investment activities. It is provided for the personal information of the Recipient with the express understanding, acknowledged by the Recipient, that it does not constitute a direct or indirect offer, an individual recommendation, solicitation to buy, hold or sell, an invitation to subscribe or acquire any securities or other financial instruments, nor any measure by which financial instruments might be offered or sold.

All actual details, information and statements contained herein were derived from sources considered reliable by NORD/LB. However, since these sources are not verified independently, NORD/LB cannot give any assurance as to or assume responsibility for the accuracy and completeness of the information contained herein. The opinions and prognoses given herein on the basis of these sources constitute a non-binding evaluation of the employees of the Markets Strategy & Floor Research division of NORD/ LB. Any changes in the underlying premises may have a material impact on the developments described herein. Neither NORD/LB nor its governing bodies or employees can give any assurances as to or assume any responsibility or liability for the accuracy, appropriateness and completeness of this information or for any loss of return, any indirect, consequential or other damage which may be suffered by persons relying on the information or any statements or opinions expressed in the present Report (irrespective of whether such losses are incurred due to any negligence on the part of such persons or otherwise).

Past performance is not a reliable indicator of future performance. Exchange rates, price fluctuations of the financial instruments and similar factors may have a negative impact on the value and price of and return on the financial instruments referred to herein or any instruments linked thereto. Fees and commissions apply in relation to securities (purchase, sell, custody), which reduce the return on investment. An evaluation made on the basis of the historical performance of any security does not necessarily give an indication of its future performance.

The present information neither constitutes any investment, legal, accounting or tax advice nor any assurance that an investment or strategy is suitable or appropriate in the light of the Recipient's individual circumstances, and nothing in this information constitutes a personal recommendation to the Recipient thereof. The securities or other financial instruments referred to herein may not be suitable for the Recipient's personal investment strategies and objectives, financial situation or individual needs.

Moreover, the present report in whole or in part is not a sales or other prospectus. Accordingly, the information contained herein merely constitutes an overview and does not form the basis for any potential decision to buy or sell on the part of an investor. A full description of the details relating to the financial instruments or transactions which may relate to the subject matter of this report is given in the relevant (financing) documentation. To the extent that the financial instruments described herein are NORD/LB's own issues and subject to the requirement to publish a prospectus, the conditions of issue applicable to any individual financial instrument and the relevant prospectus published with respect thereto as well NORD/LB's relevant registration form, all of which are available for download at www.nordlb.de and may be obtained free of charge from NORD/LB, Georgsplatz 1, 30159 Hanover, shall be solely binding. Furthermore, any potential investment decision should be made exclusively on the basis of such (financing) documentation. The present information cannot replace personal advice. Before making an investment decision, each Recipient should consult an independent investment adviser for individual investment advice with respect to the appropriateness of an investment in financial instruments or investment strategies subject to this information as well as for other and more recent information on certain investment opportunities.

Each of the financial instruments referred to herein may involve substantial risks, including capital, interest, index, currency and credit risks in addition to political, fair value, commodity and market risks. The financial instruments could experience a sudden and substantial deterioration in value, including a total loss of the capital invested. Each transaction should only be entered into on the basis of the relevant investor's assessment of his or her individual financial situation as well as of the suitability and risks of the investment.

NORD/LB and its affiliated companies may participate in transactions involving the financial instruments described in the present information or their underlying basis values for their own account or for the account of third parties, may issue other financial instruments with the same or similar features as those of the financial instruments presented in this information and may conduct hedging transactions to hedge positions. These measures may affect the price of the financial instruments described in the present information.

If the financial instruments presented in this information are derivatives, they may, depending on their structure, have an initial negative market value from the customer's perspective at the time the transaction is concluded. NORD/LB further reserves the right to transfer its economic risk from a derivative concluded with it to a third party on the market by means of a mirror-image counter transaction.

More detailed information on any commission payments which may be included in the selling price can be found in the "Customer Information on Securities Business" brochure, which is available to download at www.nordlb.de.

The information contained in the present report replaces all previous versions of corresponding information and refers exclusively to the time of preparation of the information. Future versions of this information will replace this version. NORD/LB is under no obligation to update and/or regularly review the data contained in such information. No guarantee can therefore be given that the information is up-to-date and continues to be correct.

By making use of this information, the Recipient shall accept the terms and conditions outlined above.

NORD/LB is a member of the protection scheme of Deutsche Sparkassen-Finanzgruppe. Further information for the Recipient is indicated in clause 28 of the General Terms and Conditions of NORD/LB or at www.dsgv.de/sicherungssystem.

Additional information for Recipients in Australia
NORD/LB IS NOT A BANK OR DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE 1959 BANKING ACT OF AUSTRALIA. IT IS NOT SUPERVISED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY.
NORD/LB does not provide personal advice with this information and does not take into account the objectives, financial situation or needs of the Recipient (other than for the purpose of combating money laundering).

Additional information for Recipients in Austria
None of the information contained herein constitutes a solicitation or offer by NORD/LB or its affiliates to buy or sell any securities, futures, options or other financial instruments or to participate in any other strategy. Only the published prospectus pursuant to the Austrian Capital Market Act should be the basis for any investment decision of the Recipient. For regulatory reasons, products mentioned herein may not be on offer in Austria and therefore not available to investors in Austria. Therefore, NORD/LB may not be able to sell or issue these products, nor shall it accept any request to sell or issue these products to investors located in Austria or to intermediaries acting on behalf of any such investors.

Additional information for Recipients in Belgium
Evaluations of individual financial instruments on the basis of past performance are not necessarily indicative of future results. It should be noted that the reported figures relate to past years.

Additional information for Recipients in Canada
This report has been prepared solely for information purposes in connection with the products it describes and should not, under any circumstances, be construed as a public offer or any other offer (direct or indirect) to buy or sell securities in any province or territory of Canada. No financial market authority or similar regulatory body in Canada has made any assessment of these securities or reviewed this information and any statement to the contrary constitutes an offence. Potential selling restrictions may be included in the prospectus or other documentation relating to the relevant product.

Additional information for Recipients in Cyprus
This information constitutes an analysis within the meaning of the section on definitions of the Cyprus Directive D1444-2007-01 (No. 426/07). Furthermore, this information is provided for information and promotional purposes only and does not constitute an individual invitation or offer to sell, buy or subscribe to any investment product.

Additional information for Recipients in the Czech Republic
There is no guarantee that the invested amount will be recouped. Past returns are no guarantee of future results. The value of the investments may rise or fall. The information contained herein is provided on a non-binding basis only and the author does not guarantee the accuracy of the content.

Additional information for Recipients in Denmark
This Information does not constitute a prospectus under Danish securities law and consequently is not required to be, nor has been filed with or approved by the Danish Financial Supervisory Authority, as this Information either (i) has not been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant thereto, or (ii) has been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market in reliance on one or more of the exemptions from the requirement to prepare and publish a prospectus in the Danish Securities Trading Act or any executive orders issued pursuant thereto.

Additional information for Recipients in Estonia
It is advisable to closely examine all the terms and conditions of the services provided by NORD/LB. If necessary, Recipients of this information should consult an expert.

Additional information for Recipients in Finland
The financial products described herein may not be offered or sold, directly or indirectly, to any resident of the Republic of Finland or in the Republic of Finland, except pursuant to applicable Finnish laws and regulations. Specifically, in the case of shares, such shares may not be offered or sold, directly or indirectly, to the public in the Republic of Finland as defined in the Finnish Securities Market Act (746/2012, as amended). The value of investments may go up or down. There is no guarantee of recouping the amount invested. Past performance is no guarantee of future results.

Additional information for Recipients in France
NORD/LB is partially regulated by the “Autorité des Marchés Financiers” for the conduct of French business. Details concerning the extent of our regulation by the respective authorities are available from us on request.
The present information does not constitute an analysis within the meaning of Article 24 (1) Directive 2006/73/EC, Article L.544-1 and R.621-30-1 of the French Monetary and Financial Code, but does represent a marketing communication and does qualify as a recommendation pursuant to Directive 2003/6/EC and Directive 2003/125/EC.

Additional information for Recipients in Greece
The information contained herein gives the view of the author at the time of publication and may not be used by its Recipient without first having confirmed that it remains accurate and up to date at the time of its use.
Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Investment funds have no guaranteed performance and past returns do not guarantee future performance.

Additional information for Recipients in Indonesia
This report contains generic information and has not been tailored to the circumstances of any individual or specific Recipient. This information is part of NORD/LB’s marketing material.

Additional information for Recipients in the Republic of Ireland
This information has not been prepared in accordance with Directive (EU) 2017/1129 (as amended) on prospectuses (the “Prospectus Directive”) or any measures made under the Prospectus Directive or the laws of any Member State or EEA treaty adherent state that implement the Prospectus Directive or such measures and therefore may not contain all the information required for a document prepared in accordance with the Prospectus Directive or the laws.

Additional information for Recipients in Japan
This information is provided to you for information purposes only and does not constitute an offer or solicitation of an offer to enter into securities transactions or commodity futures transactions. Although the actual data and information contained herein has been obtained from sources which we believe to be reliable and trustworthy, we are unable to vouch for the accuracy and completeness of this actual data and information.

Additional information for Recipients in South Korea
This information has been provided to you free of charge for information purposes only. The information contained herein is factual and does not reflect any opinion or judgement of NORD/LB. The information contained herein should not be construed as an offer, marketing, solicitation to submit an offer or investment advice with respect to the financial investment products described herein.

Additional information for Recipients in Luxembourg
Under no circumstances shall the present information constitute an offer to purchase or issue or the solicitation to submit an offer to buy or subscribe for financial instruments and financial services in Luxembourg.

Additional information for Recipients in New Zealand
NORD/LB is not a bank registered in New Zealand. This information is for general information only. It does not take into account the Recipient's financial situation or objectives and is not a personalised financial advisory service under the 2008 Financial Advisers Act.

Additional information for Recipients in the Netherlands
The value of your investment may fluctuate. Past performance is no guarantee for the future.

Additional information for Recipients in Poland
This information does not constitute a recommendation within the meaning of the Regulation of the Polish Minister of Finance Regarding Information Constituting Recommendations Concerning Financial Instruments or Issuers thereof dated 19 October 2005.

Additional information for Recipients in Portugal
This information is intended only for institutional clients and may not be (i) used by, (ii) copied by any means or (iii) distributed to any other kind of investor, in particular not to retail clients. The present information does not constitute or form part of an offer to buy or sell any of the securities covered by the report, nor should it be understood as a request to buy or sell securities where that practice may be deemed unlawful. The information contained herein is based on information obtained from sources which we believe to be reliable, but is not guaranteed as to accuracy or completeness. Unless otherwise stated, all views contained herein relate solely to our research and analysis and are subject to change without notice.

Additional information for Recipients in Sweden
This information does not constitute (or form part of) a prospectus, offering memorandum, any other offer or solicitation to acquire, sell, subscribe for or otherwise trade in shares, subscription rights or other securities, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. The present information has not been approved by any regulatory authority. Any offer of securities will only be made pursuant to an applicable prospectus exemption under the EC Prospectus Directive (Directive (EU) 2017/1129), and no offer of securities is being directed to any person or investor in any jurisdiction where such action is wholly or partially subject to legal restrictions or where such action would require additional prospectuses, other offer documentation, registrations or other actions.

Additional information for Recipients in Switzerland
This information has not been approved by the Federal Banking Commission (merged into the Swiss Financial Market Supervisory Authority (FINMA) on 1 January 2009). NORD/LB will comply with the Directives of the Swiss Bankers Association on the Independence of Financial Research (as amended). The present information does not constitute an issuing prospectus pursuant to article 652a or article 1156 of the Swiss Code of Obligations. The information is published solely for the purpose of information on the products mentioned herein. The products do not qualify as units of a collective investment scheme pursuant to the Federal Act on Collective Investment Schemes (CISA) and are therefore not subject to supervision by FINMA.

Additional information for Recipients in Singapore
This information is directed only at accredited investors or institutional investors under the Securities and Futures Act in Singapore. This information is intended for general distribution only. It does not constitute investment advice and does not take into account the specific investment objectives, financial situation or particular needs of the Recipient. It is recommended that advice be obtained from a financial adviser regarding the suitability of the investment product in light of the specific investment objectives, financial situation and special needs of the Recipient before agreeing to purchase the investment product.

Additional information for Recipients in the Republic of China (Taiwan)
This information is provided for general information only and does not take into account the individual interests or requirements, financial status and investment objectives of any specific investor. Nothing herein should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the information provided herein when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice.
NORD/LB has taken all reasonable care in producing this report and trusts that the information is reliable and suitable for your situation at the date of publication or delivery. However, no guarantee of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information given. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

Information for Recipients in the United Kingdom
NORD/LB is subject to partial regulation by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA). Details of the scope of regulation by the FCA and the PRA are available from NORD/LB on request. The present information is "financial promotion". Recipients in the United Kingdom should contact the London office of NORD/LB, Investment Banking Department, telephone: 0044 / 2079725400, in the event of any queries. An investment in financial instruments referred to herein may expose the investor to a significant risk of losing all the capital invested.

Additional information
Time of going to press: 12 January 2022 08:42h (CET)

Disclosure of possible conflicts of interest at NORD/LB in accordance with Section 85 (1) of the German Securities Trading Act (WpHG) in conjunction with Article 20 of the Market Abuse Regulation (EU) No. 596/2014 and Articles 5 and 6 of Regulation (EU) 2016/958.
None

Sources and price details
For the preparation of investment recommendations, we use issuer-specific financial data providers, our own estimates, company information and publicly available media. Unless otherwise stated in the information, price information refers to the closing price of the previous day. Fees and commissions are incurred in connection with securities (purchase, sale, custody), which reduce the return on the investment.

Basis of valuation and frequency of updates
For the preparation of investment recommendations, we use company-specific methods from fundamental securities' analysis, quantitative / statistical methods and models as well as from technical information processes. It should be noted that the results of the information are snapshots and past performance is not a reliable indicator of future returns. The basis of valuation may change at any time and in an unforeseeable manner, which may lead to divergent assessments. The recommendation horizon is 6 to 12 months. The above information is prepared on a weekly basis. Recipients have no right to publish updated information. For more detailed information on our assessment bases, check under: www.nordlb-pib.de/Bewertungsverfahren.

Recommendation system
Positive: Positive expectations for the issuer, a bond type or a bond placed by the issuer.
Neutral: Neutral expectations for the issuer, a bond type or a bond of the issuer.
Negative: Negative expectations for the issuer, a type of bond or a bond placed by the issuer.
Relative Value (RV): Relative recommendation to a market segment, an individual issuer or a range of maturities.

Breakdown of recommendations (12 months)

Positive:	37%
Neutral:	55%
Negative:	8%

Recommendation record (12 months)
For an overview of our overall pension recommendations for the past 12 months, please visit www.nordlb-pib.de/empfehlungsuebersicht_renten. The password is "renten/Liste3".

Issuer / security	Date	Recommendation	Bond type	Cause