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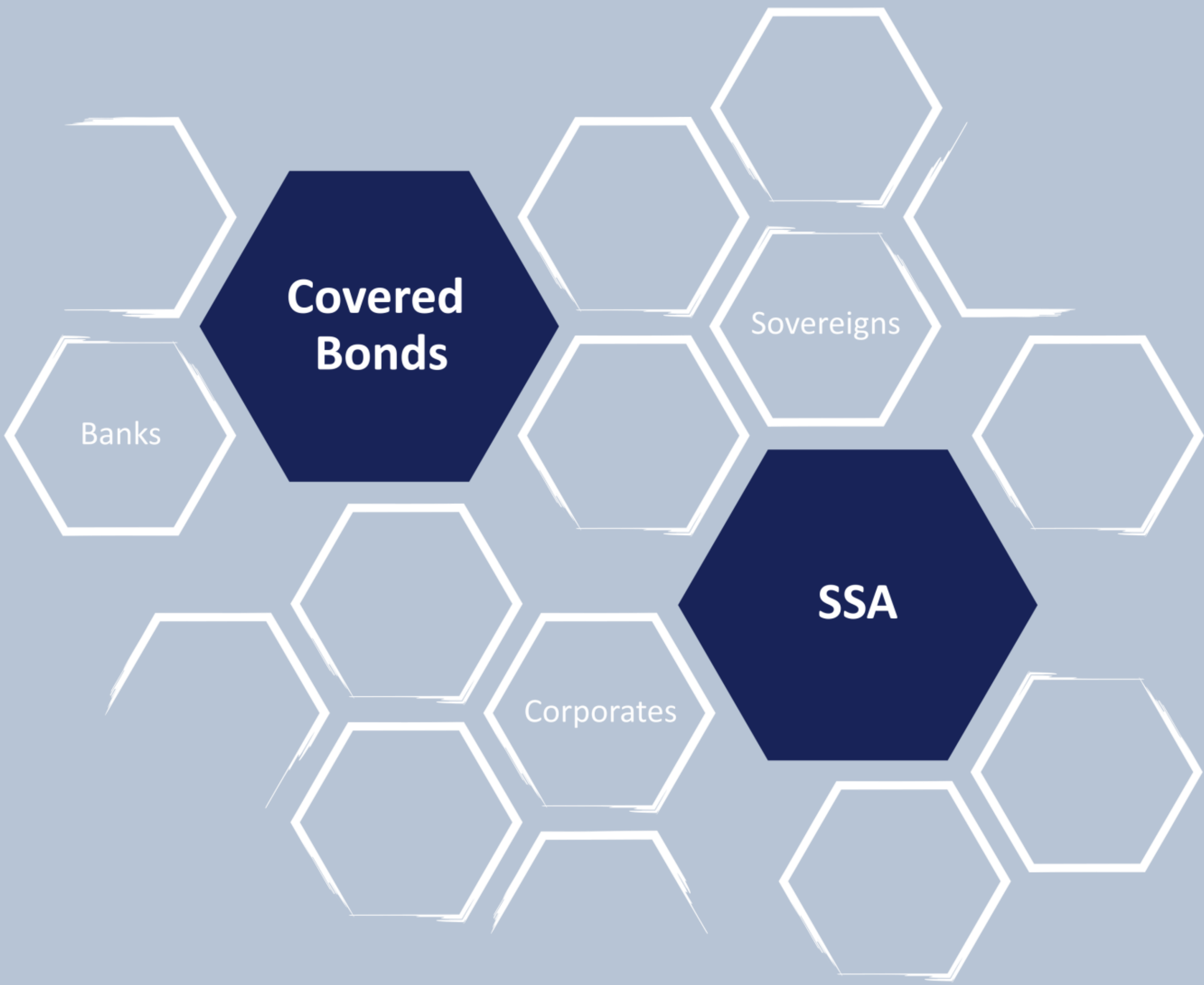

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

Finanzgruppe

26 January 2022 ♦ 03/2022

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

NORD/LB

Agenda

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Market overview
Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

Primary market: landscape now appears more varied

Over the past five trading days, a total of five bonds from four jurisdictions meant that far fewer issuers were active on the market than was the case during the first few weeks of 2022. Moreover, the landscape now appears to be becoming more varied. This applies not only to issuance volumes, which ranged from EUR 500m to (a record-breaking) EUR 2.75bn, but also to market parameters such as new issue premiums and oversubscription ratios. Right on cue, primary market activity for the week under review was kicked off with a bang last Wednesday, when Bank of Montreal (BMO) placed its first EUR benchmark since June 2021 (BMO 0.05 06/08/29) with a 5y term to maturity. The deal started the marketing phase in the area of ms +10bp before finally narrowing to ms +6bp during the book-building process. With a volume of EUR 2.75bn (final order book: EUR 3.6bn; bid-to-cover ratio: 1.3x), BMO settled on a bond volume that went some way beyond being merely impressive. The NIP for this deal came in at 2-3 basis points. Also on Wednesday, Muenchener Hypothekenbank (MUNHYP) issued its first Pfandbrief of the year (EUR 750m; 7y). During the marketing process, the spread tightened by 3 basis points to ms -3bp versus initial guidance (ms flat area), which again produced a new issue premium of one basis point. Moreover, another bid-to-cover ratio of 1.3x was in evidence here on the back of an order book totalling EUR 940m. Staying with Wednesday for the time being, Raiffeisen Bank International (RBI) from Austria also initially mandated for a dual tranche deal worth EUR 750m (WNG) overall. For this deal, the issuer commenced the marketing phase with a benchmark-sized deal (EUR 500m, 6y; guidance: ms +5bp area) alongside a sub-benchmark tranche (EUR 250m, 15y: guidance ms +15bp area). While the EUR benchmark was successfully placed at ms +2bp and generated an order book of EUR 750m (more than 31 investors), the sub-benchmark portion was ultimately not brought to market. From our point of view, the term of 15 years attached to the sub-benchmark tranche is likely to have been a key reason as to why some investors shied away from this deal. On Thursday, another Canadian issuer, the National Bank of Canada, approached investors on the primary market. This EUR benchmark with a term of five years and a final volume of EUR 1bn stood out less on account of its size, but in turn was all the more striking due to the pricing. With initial guidance in the area of ms +5bp, tightening of five basis points was ultimately observed for this deal. At the same time, this is the “narrowest” of the benchmark transactions from Canada seen so far in 2022. With this latest bond, the issuance volume attributable to Canadian banks in the current year already totals EUR 7bn. This has come as a huge surprise to us, with the size of the BMO deal helping to explain this development. However, we are already being forced to weigh up whether our initial issuance forecast for the full year 2022 of EUR 9bn for Canada is still tenable. Any adjustment here would make it the earliest forecast revision we have ever had to make, but we are not immune to taking on board new information. We have reassessed the primary market supply from Canada as part of our Covered Bond focus article. On Monday, Société Générale SFH from France placed a covered bond worth EUR 1.25bn (7y). At ms +1bp, the bond was priced three basis points tighter than the initial guidance in the area of ms +4bp. As such, investors were offered a new issue premium of three basis points, while the order book totalled EUR 1.7bn.

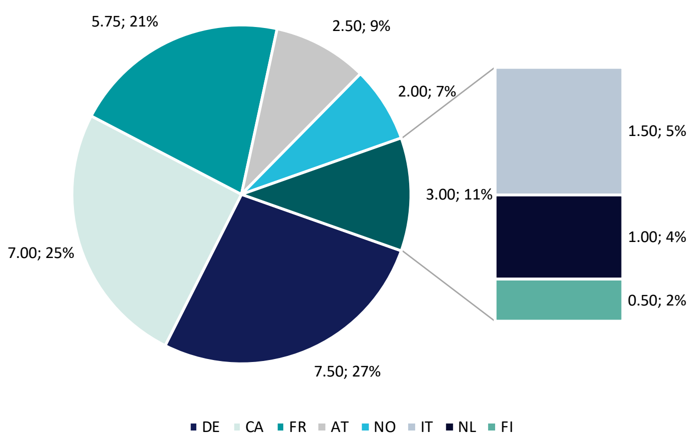
Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Société Générale SFH	FR	24.01.	FR0014008066	7.0y	1.25bn	ms +1bp	AAA / Aaa / -	-
National Bank of Canada	CA	20.01.	XS2436160936	5.0y	1.00bn	ms +5bp	AAA / Aaa / -	-
RBI	AT	19.01.	XS2435783613	6.0y	0.50bn	ms +2bp	- / Aa1 / -	-
MUNHYP	DE	19.01.	DE000MHB29J3	7.0y	0.75bn	ms -3bp	- / Aaa / -	-
Bank of Montreal	CA	19.01.	XS2430951744	5.0y	2.75bn	ms +6bp	AAA / Aaa / -	-

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

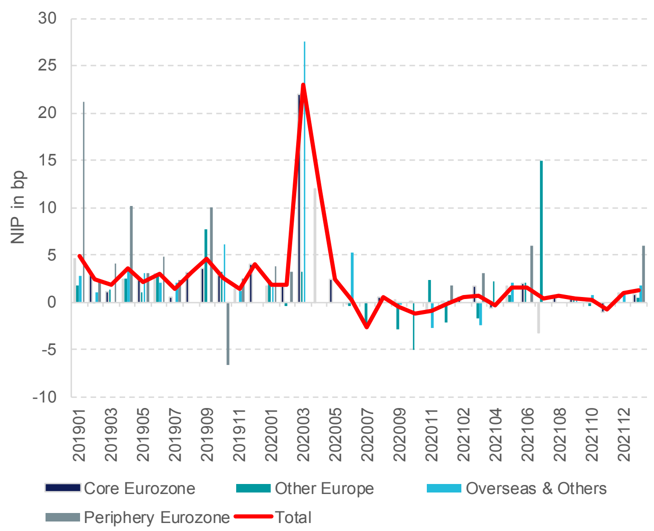
Primary market 2022: highest issuance volume YTD attributable to Germany

The total issuance volume recorded in the year to-date comes to EUR 27.75bn. At EUR 7.5bn, Germany is responsible for the largest share of this volume. Slightly surprisingly, Canada follows in second place with a value of EUR 7bn. Thereafter, France (EUR 5.75bn) and Austria (EUR 2.5bn) slot into third and fourth place respectively. However, the brisk issuance activity from Canada is not the only talking point on the primary market at the start of 2022. As such, we shall be taking a closer look at issuance patterns observed in the first month of the new year as part of a focus article in next week's edition of the NORD/LB Covered Bond & SSA View, which will be published on 02 February.

Primary market: EUR BMK YTD



Primary market: new issue premiums (EUR BMK)



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

First deal in 2022: Bausparkasse Wüstenrot opens up the EUR sub-benchmark segment

After the first few trading weeks of the new year were shaped by benchmark deals (including a handful of non-EUR transactions), Bausparkasse Wüstenrot AG from Austria has now successfully opened up the market for EUR sub-benchmarks. The issuer opted for a term to maturity of 8 years for its deal worth EUR 300m (WNG). Following initial guidance in the area of ms +11bp, the re-offer spread ultimately narrowed to ms +8bp (new issue premium: 2-3bp). An order book totalling EUR 690m (43 investors) signalled thoroughly robust demand for what is now this issuer's second transaction in the EUR sub-benchmark segment. Back in September 2021, the bank successfully approached investors with another deal worth EUR 300m (BSWUES 0.01 09/28/28). We are sticking to our view that the EUR sub-benchmark segment should by no means be underestimated as a niche market. In this context, we are expecting this sub-segment of the EUR-denominated covered bond market to grow further over the course of 2022.

Building societies as covered bond investors: BaFin publishes new regulation for investment in soft bullet covered bonds

In the opinion of some regulatory bodies, covered bond issuances that come with maturity extension options expose investors to risks that are to be avoided. For example, the Federal German Financial Supervisory Authority (BaFin) has previously taken this view in relation to the possibility of building societies investing in soft bullet covered bonds. At the end of 2017, BaFin restricted the investment universe for building societies and stipulated that investments in soft bullet covered bonds were no longer permitted (cf. NORD/LB Covered Bond & SSA View from 6 December 2017). By the start of 2019, BaFin adapted this restriction to (partially) allow soft bullet covered bonds to be acquired – a decision which can also be attributed to the growing importance of this sub-segment (cf. NORD/LB Covered Bond & SSA View from 20 February 2019). However, in so doing BaFin also stipulated two restrictions that essentially ruled out the general suitability of investing in soft bullet bonds. With a view to the restricting conditions, BaFin initially stipulated that only reasons related to the opening of insolvency proceedings within the meaning of the Insolvency Code (InsO) were applicable as a trigger event for a maturity extension. In this way, the credit event was limited to the existence of firm evidence of insolvency (according to our understanding within the meaning of Section 17 InsO), impending insolvency (within the meaning of Section 18 InsO) and excessive debts (within the meaning of Section 19 InsO). Secondly, only soft bullet covered bonds, for which only a single maturity extension limited to 12 months is permitted, were deemed suitable. The regulation at this time was, in our view, too restrictive, and awkward for building societies to properly make use of. In this sense, from an investor perspective, we welcome the fact that BaFin presented a reworked regulation in January of this year, which redefines the requirements and, in our opinion, significantly expands the group of permissible soft bullets. As such, building societies can now invest in soft bullet covered bonds in the event that a) the covered bond is regulated by the law of a member state of the European Union (EU) or b) the credit event or trigger event is based on the existence of reasons to open insolvency proceedings or comparable grounds defined in the respective national legislation for the cessation of business operations or the liquidation of the company or c) the credit event or trigger event relates to a breach of the cover test or to contractually agreed reasons that give the impression that the liabilities of the Covered Bonds secured by the cover pool are at risk with no real scope for discretion on the part of the issuer and d) the potential maturity extensions are capped at a maximum of 12 months. This extension of the soft bullet covered bond investment universe is, in our view, wide-ranging due in particular to the presence of the “or” constructions in clauses a), b) and c). For example, from our perspective, it is conceivable that soft bullet covered bonds from non-EU issuers could now also potentially be acquired by building societies. In relation to the “maximum of 12 months” condition in clause d), based on the current specifications, we also see broad-based investment potential in the EUR benchmark segment in particular. Nevertheless, in our opinion, a case-by-case examination at the level of the individual bond, programme and jurisdiction concerned is absolutely advisable, although we would not repeat the “awkward use” criticism levelled at the 2019 version of this regulation to the same extent. This is because the new wording covers significantly more characteristics of the international covered bond market.

Rating agency Scope discusses property price developments across Europe

The rating agency Scope recently published a commentary regarding the situation on the European property market in which it took a critical look at the question as to whether a peak has already been reached or not. As the agency outlined in its statement, the increase of 10.6% year on year in the third quarter of 2021 could be the last for some time – or as Scope describes it, a "final sprint". For example, in this context, the rating agency points out that double-digit growth in property prices was last observed in 2017, before falling by 15% in the following year. This development was supported by extremely low interest rates, a lack of investment opportunities, historically high household savings and the fact that people were keen to own their own homes (a trend driven not least by the corona-virus pandemic). In its commentary, Scope further outlines that property prices have al-ready recovered since the financial crisis and warnings about the risks of a potential price bubble have been issued since as early as 2010. However, the hypothesis of a property price bubble has generally been rejected, due, among other aspects, to data on private household debt levels and the debt-to-income ratio. According to Scope, this view of the situation must now be adjusted. For example, sovereign debt has risen sharply during (and prior to) the pandemic, while the recent rise in inflation could also prove problematic for property price developments. Nevertheless, there remains a lack of relevant investment alternatives. The way to fight inflation would be to raise interest rates. However, our base-line scenario does not anticipate a step of this kind (cf. Cross Asset article) until at least 2023. In terms of fiscal policies, politicians could turn to higher taxes or put the brakes on public investments, although Scope does not foresee either of these measures. In contrast, it would make sense, as Germany has now signalled its intention to do, to intervene on a macroprudential level by introducing capital buffers for mortgage lending. However, Scope does not initially expect any sustained effect for Germany, but sees this measure as the first step of an attempt to make mortgages less attractive. From Scope's point of view, this is an example that regulatory bodies in other jurisdictions could well now follow.

Market overview
SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

What exactly is the ECB capital key?

Since 2015, we have reported sporadically, but consistently, on the Eurosystem's purchase programmes in our weekly publication and shown the purchase behaviour based on an adjusted ECB capital key in the appendix each week. This Eurosystem key (to be followed as closely as possible) is the key used, for example, in the case of purchases made under the ECB's asset purchase programmes. While some market observers are meticulous about adhering to the eligible sums, we are more relaxed about this in a "breathing" programme given that we are only talking about a few decimal point differences. The capital key only includes the national central banks (NCBs) of the Eurozone. But where does this come from? The capital of the European Central Bank (ECB) comes from the NCBs of all EU member states and amounts to EUR 10.8bn (or more precisely EUR 10,825,007,069.61). The respective NCB shares in this capital are calculated using a key which reflects the respective country's share in the total population and gross domestic product (GDP) of the EU. These two determinants have equal weighting. The ECB adjusts these shares every five years and whenever there is a change in the number of NCBs that contribute to the ECB's capital. These NCBs are those whose countries are member states of the EU. The adjustment is made on the basis of data provided by the European Commission. The most recent adjustment took place on 1 February 2020 following the withdrawal of the United Kingdom from the EU. The capital deposited with the ECB by the national central banks of countries outside the euro area amounts to exactly EUR 75,794,263.89. This is a fraction of the paid-up subscriptions of Eurozone NCBs to the capital of the ECB, which amount to a total of EUR 8.2bn (or to be exact EUR 8,193,738,096.55) and break down as follows:

Capital key (in %)

Belgium	2.9630	**Lithuania**	0.4707
Germany	21.4394	**Luxembourg**	0.2679
Estonia	0.2291	**Malta**	0.0853
Ireland	1.3772	**The Netherlands**	4.7662
Greece	2.0117	**Austria**	2.3804
Spain	9.6981	**Portugal**	1.9035
France	16.6108	**Slovenia**	0.3916
Italy	13.8165	**Slovakia**	0.9314
Cyprus	0.1750	**Finland**	1.4939
Latvia	0.3169	**Overall**	81.3286

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

And why is there an adjusted capital key?

Attentive readers will of course have immediately noticed that 18.67% is missing in the table above. This is where the other EU countries who are not in the Eurozone (Bulgaria, Czech Republic, Denmark, Croatia, Hungary, Poland, Romania and Sweden) come in. A small but important fact: the EU's eight non-Eurozone NCBs are required to contribute to the operational costs incurred by the ECB in relation to their participation in the European System of Central Banks (ESCB) by paying up a small percentage of their share in the ECB's subscribed capital. Since 29 December 2010 their contributions have represented 3.75% of their total share in the subscribed capital. The non-Eurozone NCBs are not entitled to receive any share of the distributable profits of the ECB, nor are they liable to fund any losses of the ECB. For the APP, it must now be taken into account that Greek bonds are not eligible for purchase and purchases of supranationals have to meet the 10% purchase share. Consequently, the above percentage breakdown must be reallocated to 100%. In contrast, Greek bonds can be purchased under the PEPP, which means that the capital keys are different in this case.

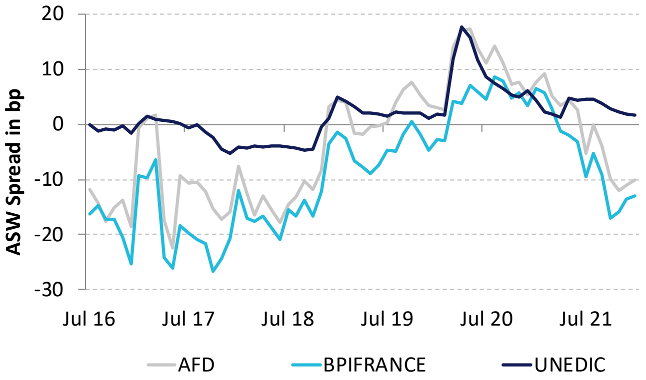
19th edition of the NORD/LB Forecast Day: Inflation, monetary policy and capital markets – who is driving who?

On 19 January, the 19th edition of the NORD/LB Forecast Day took place – chaired by co-author Dr Frederik Kunze. The client event, which was again held digitally, concentrated on the topic of inflation. During the event entitled "The return of inflation – here to stay?", NORD/LB Chief Economist Christian Lips presented NORD/LB Research's fundamental and market forecasts for 2022 and discussed, among other things, influences such as the market environment shaped by the pandemic and the associated risk factors. In this context, he also addressed the effects of the current rise in inflation on economic growth in the euro area. In his follow-up talk, Dr Jürgen Stark picked up on this thread to also address the historical and international context of inflation and monetary policy. Stark was quite critical of the ECB's current course, which he said favours price increases and cannot be continued in this way. In the panel discussion that followed the presentations, entitled "Nominal, real, catastrophic – in which direction will the surge in inflation drive the financial markets?", the two speakers discussed the cause-effect relationships between inflation, monetary policy and capital markets together with Prof Dr Thomas Beyerle as property expert and Head of Research at Catella Real Estate AG, Volker Pätzold in his role as Head of Capital Investment at the VGH Group and Martin Hartmann (Head of NORD/LB Markets). In addition to possible hedges against price rises in the form of property and dealing with a possible interest rate turnaround, the current role of the ECB also came up. The panel also openly addressed the increasing politicisation of the ECB's monetary policy body and was critical of the softening of the mandate of price level stability in favour of political mandates. We would like to thank all participants, panellists and speakers for a lively and enriching discussion and are already looking forward to the 20th Forecast Day in 2023. In keeping with this theme, we devote the current edition of our weekly publication, as usual, to the outlook for the ECB's key interest rate meeting, which is set to take place in eight days' time (cf. focus article). Given the anticipation surrounding this meeting, we would at least like to lower expectations somewhat in terms of new announcements. After the December meeting, the first meeting in 2022 is likely to produce very little in the way of new information.

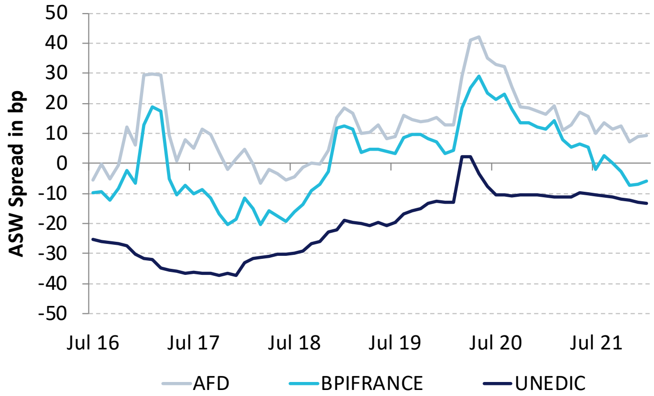
France: political and economic tensions

Emmanuel Macron has been President of France since 14 May 2017. Macron stands for liberal, progressive politics and is committed to deeper European integration. His extensive reform policy met with strong resentment within the population over the course of its implementation. At the end of 2018, the “yellow vest” movement was born, which called for nationwide protests and took to the streets to object to various political initiatives. For example, the protesters opposed the higher taxation of fossil fuels and demanded an increase in the minimum wage and the introduction of direct democracy. In the wake of the protests, which found supporters from all sides of the political spectrum, Macron's popularity ratings plummeted and have since only been close to the 40% mark. The situation calmed down somewhat and the protests subsided in the months that followed due to concessions from the government. Nevertheless, the situation in the country remains tense. The rural population in particular feels increasingly disconnected, and the administration is regarded as run-down and the social system as outdated. Last but not least, the coronavirus pandemic, which has hit France particularly hard, and Islamist terrorist attacks also provide political dynamite that populists like Marine Le Pen are trying to exploit for their own ends. Although the majority of the French population has so far supported the President's tough stance to contain the pandemic, confidence in the incumbent has waned in the face of the grievances. With a view to the upcoming presidential election in April 2022, Marine Le Pen from the right-wing extremist collective movement Rassemblement National is in second place in the most recent polls (21 January 2022) with 17% of the vote behind the incumbent president (25%). President of the Regional Council of the Île-de-France region and republican Valérie Pécresse is in third place, currently with 16% of the vote. In the election five years ago, French agencies in particular experienced significant swings in spreads, as can be seen from the temperature curves below. This is significant due to the fact that the SSA segment is by nature rather dormant and even reactions of five basis points lead to unease. In any case, the French market tends to be more volatile due to its heterogeneity. In contrast to the German agency market (all issuers with a risk weighting of 0%), we distinguish here between French agencies with a risk weighting of 0% (e.g. UNEDIC, CADES, SOGRPR) and 20% (e.g. AFD, SFIL, AFL).

French agencies: ASW Spreads 5y



French agencies: ASW Spreads 10y



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

EU auction tap

On Monday, the European Commission, on behalf and under the ticker of the EU, successfully executed its first green bond auction by raising EUR 2.5bn in NextGenerationEU green bonds for Europe's sustainable recovery. The amount was issued via a tap of the first 15-year green NGEU bond (amount originally issued: EUR 12bn), which the European Commission placed on the market on 12 October 2021. The auction supports the secondary market liquidity of the first NextGenerationEU green bond and confirms the European Commission's commitment to the market for sustainable finance. The tap is part of the EUR 50bn in long-term funding that the European Commission intends to issue under its NextGenerationEU recovery programme in the first half of 2022. The auction was not on everyone's radar in the run-up; according to the issuance calendar, many market participants had not expected the EU to act until February. As a result, the NGEU programme now stands at EUR 73.5bn out of just over EUR 800bn until the end of 2026. To recap, 30% or EUR 250bn is expected to have been issued as green bonds by this point.

Primary market

The transactions from the SSA segment in the past trading week are comparatively sparse. By Monday morning, only the city state of Berlin had completed a transaction. Here, a total of EUR 500m changed hands for 30 years at ms +10bp. The books were filled with exactly EUR 500m in order. Later on Monday, KFW ventured onto the trading floor after the brief interest rate shock – ten-year bonds were yielding in positive territory again, further details of which can be found in our dedicated focus article later in this edition. For this deal, KfW was seeking to raise a total of EUR 5bn for a term of just over five years. The spread finally settled at ms -19bp after the guidance had started at ms -17bp area. This narrowing corresponded to an order book of EUR 24.5bn. For information purposes only, the transaction of CPPIB Capital, guaranteed by the Canada Pension Plan Investment Board, should be briefly mentioned at this point. Under the ticker CPPIBC, it raised EUR 1bn at ms +25bp (Aaa/AAA/AAA). We do not see the construct as a classic agency, but do not wish for the issuer to be swept under the carpet as an alternative to Canadian provinces either. We also take a brief look into the future: Mandates issued yesterday may well lead to business today. For example, a consortium for a transaction on the part of Brandenburg was formed (LSA, 8y, EUR 500m), while the EIB mandated for EUR 1bn (likewise WNG) as part of its climate awareness format (CAB, 7y).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
CPPIBC	CA	25.01.	XS2438619426	15.0y	1.00bn	ms +25bp	AAA / Aaa / AAA	-
KFW	DE	24.01.	DE000A3MP7H9	5.3y	5.00bn	ms -19bp	- / Aaa / AAA	-
BERGER	DE	18.01.	DE000A3H2Y73	30.0y	0.50bn	ms +10bp	AAA / Aa1 / -	-

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

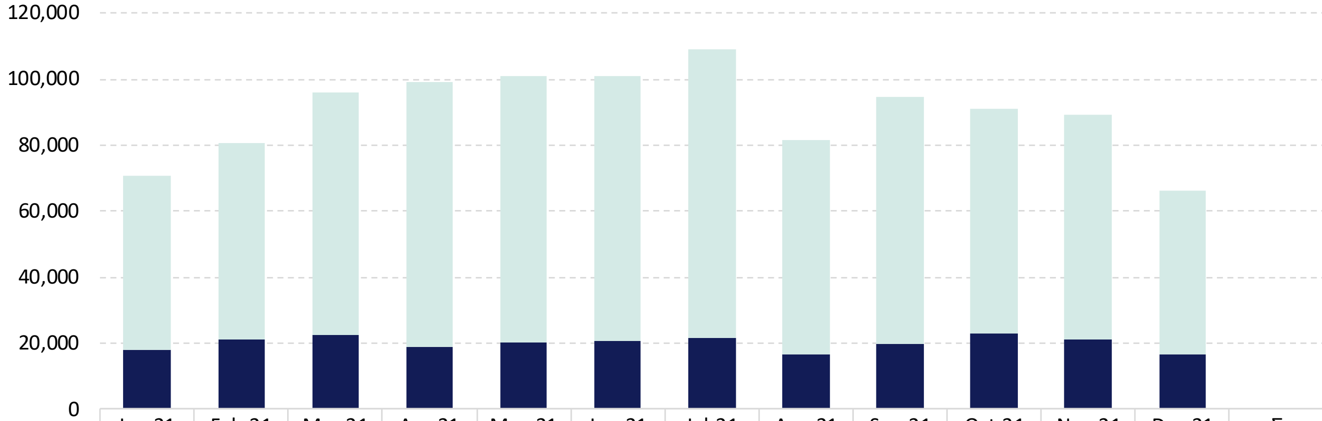
Cross Asset
ECB preview: 10y Bund spotted in positive terrain. What's next?

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

ECB meeting: remain flexible despite rising yields and inflation concerns
In eight days' time, on Thursday, 3 February, the first scheduled ECB meeting of the new year will take place – and it will in all likelihood also be the least significant meeting of 2022 in terms of concrete and above all new decisions. We say this because the decisions taken in mid-December 2021 were so extensive. The framework for 2022 was therefore already established at the end of last year. With the escalation of the pandemic caused by the Omicron variant, it will not be any easier for the ECB to adequately weigh up the risks for its own course from a rising rate of inflation against the economic risks of an insufficiently accommodative monetary policy – or not sufficiently favourable financing conditions. This has resulted in quite significant interest rate increases since the last meeting. As an example, it should be pointed out in this introduction that the ten-year Bund yield returned to positive territory for the first time in almost three years (May 2019). More will follow on this later. We summarised the last ECB meeting as follows: "PEPP benched for now, APP comes in as Point Guard". The highlights were: the PEPP will end on 31 March 2022 and until then the ECB will continue making purchases at its moderate pace and as such, according to our calculation, will therefore not utilise the EUR 1,850bn envelope in full, adjustment to the APP in 2022 with staggered purchase speed (booster), no decisions on TLTRO IV or tiering and no interest rate turnaround in 2022. Overall, the meeting was multifaceted and the decisions made were complex. While an end to the Pandemic Emergency Purchase Programme at least gives hope that purely monetary policy topics will again dominate the market in 2022, the APP in particular should be seen as a kind of booster in its realignment. There is likely to be a greater focus on the ECB's inflation target and current developments in the Harmonised Index of Consumer Prices (HICP), especially in the Q&A session following the opening statement.

Increased APP, unused part of the PEPP and reinvestments up to the end of 2024
Despite the rising inflation rates, using the part of the PEPP envelope that has not been utilised elsewhere is not inconceivable, as the programme provides for greater purchasing freedom than the APP (keyword: Greece). The Greeks actually appear in the ECB's statement explicitly. The ECB will also continue to reinvest the maturities of the PEPP – now until at least the end of 2024, extended from the end of 2023 – and should again show a significant degree of flexibility here. The ECB's baseline scenario does not foresee an increase in the APP for Q1 (i.e. EUR 20bn per month as before), then a doubling of monthly net purchases to EUR 40bn in Q2, a reduction to EUR 30bn per month in Q3 and a return to the starting level in Q4 (EUR 20bn per month). In the APP, this corresponds to the purchase volume being EUR +90bn higher in 2022 than in 2021. More extensive or far-reaching adjustments to the purchase programme were not made. In this context, Lagarde made it clear that there was no need to adapt or modify the APP. In addition, it should be noted that the APP still has no end date, and only after that would there be interest rate increases. In this context, market players are increasingly interested in the "when".

Monthly net purchases (EURm)



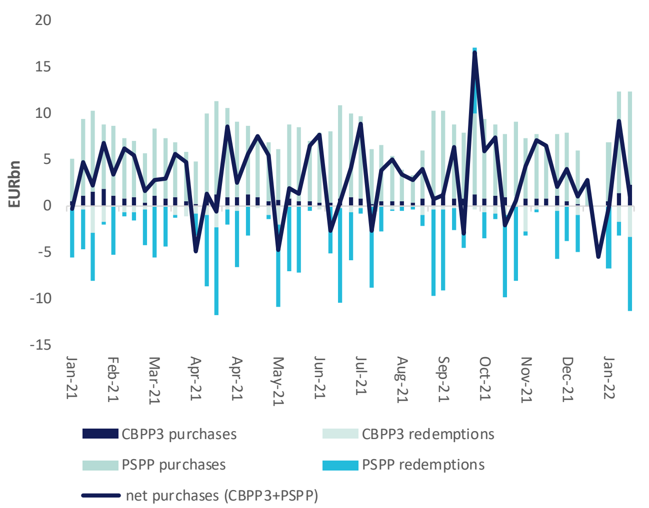
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
∑	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,244	66,044	1,080,31
PEPP	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	840,400
APP	17,846	20,915	22,561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

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

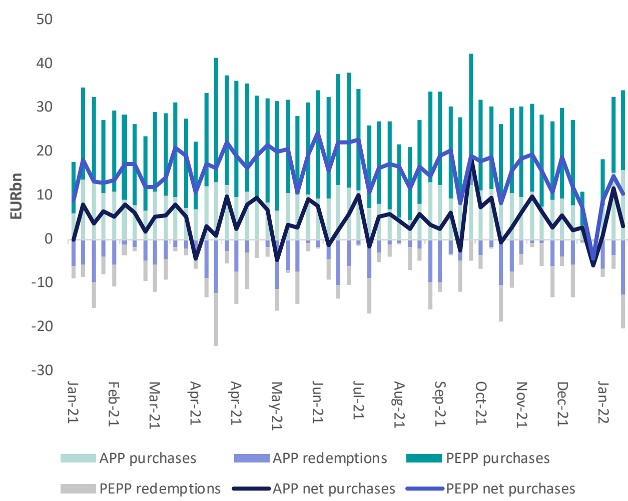
End of pandemic emergency programme before the pandemic is over

We expect net purchases under the PEPP to end in March 2022. In fact, we believe that the emergence of virus variants has made and will make decision-making for the ECB Governing Council more complex. As recently as March 2021, Lagarde pointed out in the ECB blog on the pandemic that "the PEPP could provide sufficient support to the euro area economy to help offset the pandemic-related downwards shift in the projected path of inflation". This stimulus is certainly no longer needed from the PEPP at present. However, since it cannot be completely ruled out that the pandemic situation will worsen to such an extent that downside risks will have to be brought back into the focus of the central bank, a different withdrawal from the PEPP is not unrealistic. By communicating the possibility of not ending the PEPP after all if required, the ECB Governing Council might also communicate the provision of a specific emergency framework in eight days.

Purchases under the PSPP and the CBPP3 (since 2021)

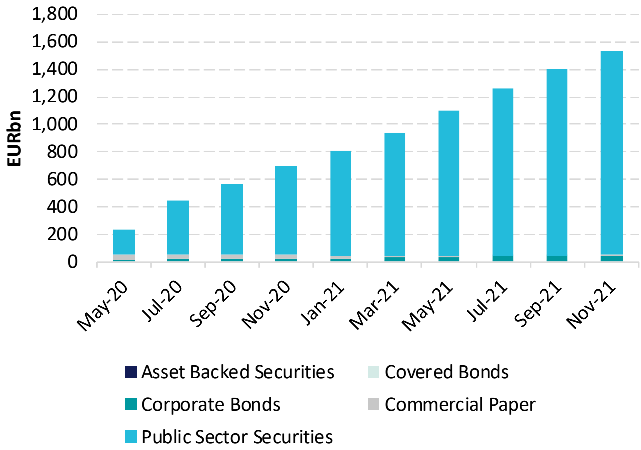


Purchases under the PEPP and the APP (since 2021)

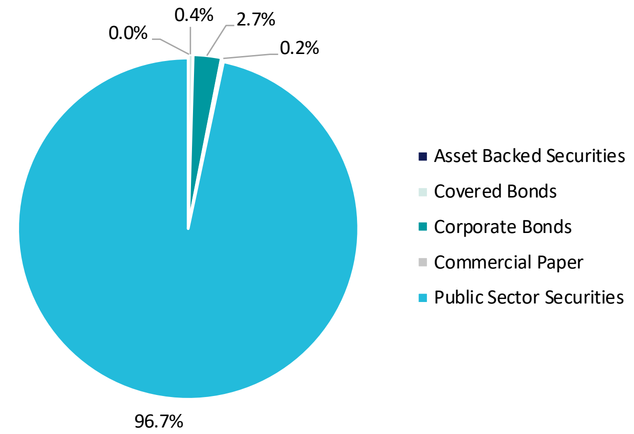


Source: ECB, NORD/LB Markets Strategy & Floor Research

Bimonthly PEPP reporting



Development of PEPP volume



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

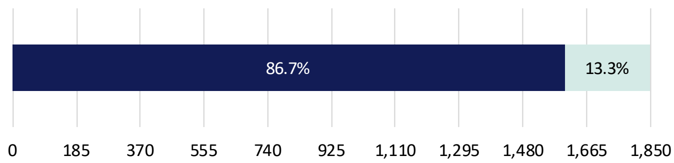
Technical details and upcoming adjustment of the ISIN limit?

For the period from April 2022, the question also arises to what extent the ECB might amend the rules of the APP. Regardless of volume-related decisions, it is quite likely that possible adjustments to the ISIN limits and the capital key will be intensively discussed over the course of the year at subsequent meetings (conceivable: raise supra share). However, we do not see any time constraint here, as the Eurosystem is and remains capable of acting on the basis of the current specifications.

Volume of the purchase programme (EUR m)

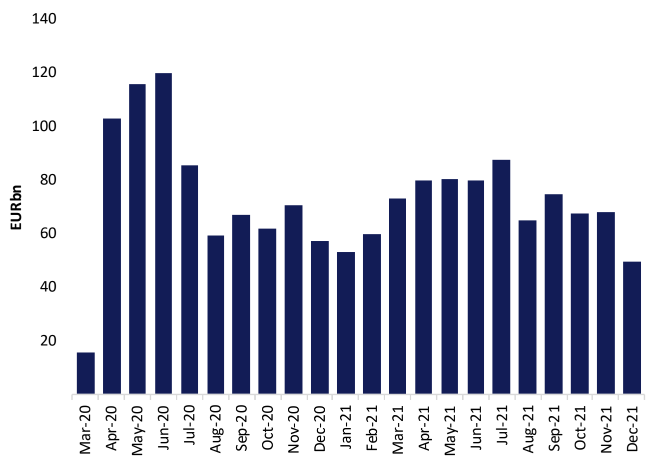
	PEPP
Nov 2021	1,548,190
Dec 2021	1,597,565
Δ	+49,375

Volume already invested (EUR bn)

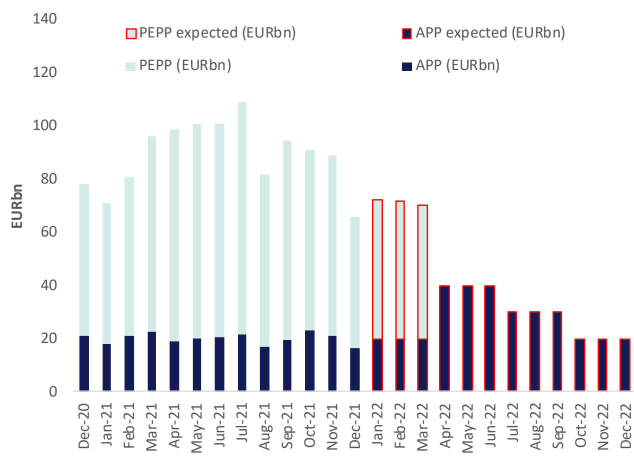


Assumed future purchase pace	**Weekly net purchase volume**	**PEPP Limit theoretically hit in...**
Average net weekly purchase volume so far	EUR 17.1bn	14 weeks (22 April 2022)

PEPP: monthly purchases

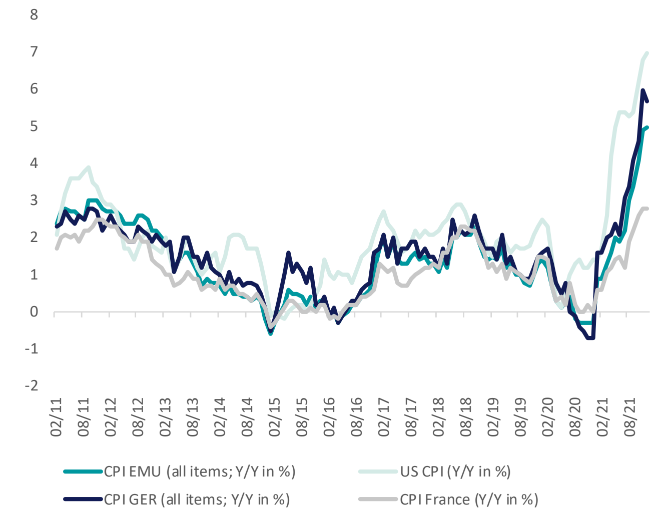


APP and PEPP: monthly purchases and our scenario

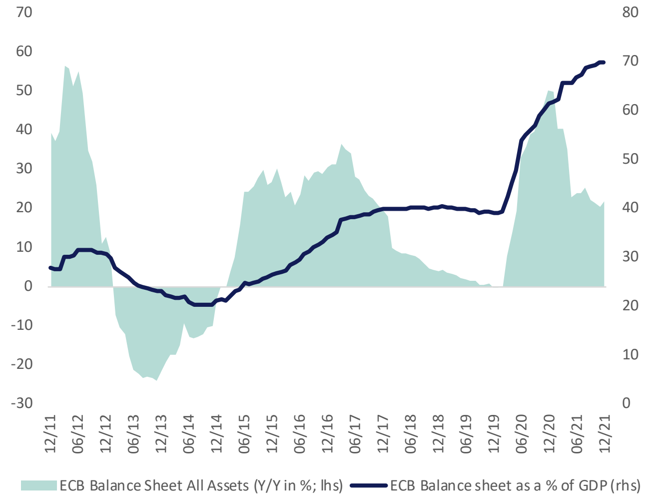


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Price trend: EMU, USA, GER, FR



ECB: balance sheet development



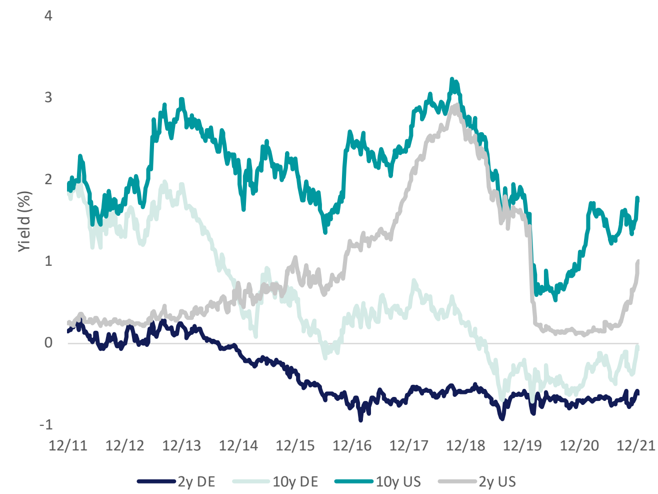
Source: Bloomberg, ECB, NORD/LB Markets Strategy & Floor Research

Inflation trend: risk of second-round effects

If the response to an escalating inflation trend is insufficient, a much more drastic reaction would be required in the not-too-distant future. Especially if the belief that the ECB has held on to the term "transitory" to describe the inflation trend for too long continues to consolidate on the financial and capital markets, this expectation could be confirmed economically by second-round effects. In this respect, it remains for the ECB Governing Council to weigh up two risky paths. This means that the end of the PEPP in March 2022 as already communicated by ECB President Christine Lagarde will be accompanied by an increased APP and weak formulations on the handling of purchasing activities. In addition, we would not be surprised if the terms "transitory" or "tapering" were to be expanded on or contextualised, as has already happened several times in the past in a manner rather akin to splitting hairs.

Yields on German government bonds

Yield comparison: German vs. U.S. government bonds



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

Internal discussions: dwindling unanimity?

While it has certainly been a challenge in recent months to find diverging opinions on the appropriate direction of the ECB's monetary policy, it has been almost impossible to ignore of late that the positions and standpoints in the ECB Governing Council are now going in other directions. The best example of this is the fact that Council members no longer still all openly rally behind the mantra of transitory inflation. Significant insights are provided by the accounts presented to the meeting on 20 January 2022 for the December meeting. Unsurprisingly, discussions – not exclusively but mainly – focused on the issue of inflation. Both the assessment of the current situation on price developments and the inflation drivers for the future (keyword: energy transition and prices) as well as the question of adequate monetary policy were and are hot topics of debate. The minutes of the December meeting actually raise interesting aspects that document the discord accordingly. In this context, it is particularly notable that regarding the statement demanded in the discussion, according to which the prospects for the further inflation outlook are "surrounded by exceptionally high uncertainty" – one should certainly think of "upside surprises" first and foremost. Also in the course of the assessment of the possible inflation path for 2023 and 2024, some panellists cautioned that a "higher for longer" inflation scenario could not be ruled out. In this context, urgent calls were made for a comprehensible communication strategy. Accordingly, the ECB should make it clear that there is a willingness to act if necessary. In our opinion, this reasoning emphasises the specification of measures and flexibility of the committee. We also see this debate – which is becoming increasingly widespread – as an indication of the dwindling unanimity in the ECB Governing Council. This has become quite obvious, for example, through the statements of Isabel Schnabel, Member of the Executive Board of the ECB, which point to the inflationary effect of rising energy costs in the course of the green transition (cf. especially interview on 10 January). This assessment contradicts the position of ECB Chief Economist Philip R. Lane, who – more in line with Christine Lagarde – places greater emphasis on the effect of high energy prices, which inhibits growth in the Eurozone (cf. interview on 11 January).

ECB does not operate in a vacuum, yet will not follow a "brutally" Fed

The ECB is by no means operating in a vacuum. While this perception is certainly not new, it is quite relevant. The fact that divergent monetary policy orientations of the Federal Reserve and the ECB are reflected in the capital market is also not new. Yields on German government bonds and U.S. treasuries also differ as a result of expectations for growth and monetary policy. This is furthermore illustrated by the EUR/USD exchange rate. After all, a weaker euro has the potential to further increase price pressures through imported inflation. It is our view that the exchange rate channel should not be underestimated as a co-determining factor for price trends. Nevertheless, the ECB President recently reaffirmed her position that the central bank's reaction for the Eurozone should not be as "rapidly and as brutally" (we would prefer: "fast and furious") as could conceivably be the case for the Fed. Lagarde justified this on account of the differences between the two currency areas with regard to the economic recovery path. We certainly share this assumption of necessary asymmetry in the monetary policy stance in some areas. At the very least, the potential for setbacks following an excessively rapid change in interest rate policy in the Eurozone is much higher than in the USA due to the heterogeneity of the economies in the currency area. Nevertheless, the ECB's current path is by no means without risk.

TLTRO and tiering: likely to remain in the quiver for now

With regard to the ECB's TLTRO tenders, we did not expect any concrete decisions in December and justified this not least with the current timetable of the ongoing TLTRO III programme. In terms of maturities, for example, the first is not until September 2022. Nevertheless, the ECB Governing Council could already have the middle of 2022 in mind, as the current configuration of the conditions means the best possible interest rate expires then, and therefore the accommodative effect of TLTRO III could diminish. Not least against the background of present economic conditions, the expiry of the current maximum possible haircut of 50 basis points should be and remain based on the deposit rate. We also do not expect the exceedingly attractive conditions of the rather unconventional longer-term refinancing operations for commercial banks to be reissued for further or newly announced TLTRO tenders. The ECB is also likely to consider the tiering factor in the context of the graduated interest rate, but will not make a decision in February. According to our baseline scenario, the ECB could compensate for the fact that commercial banks will lose relief effects through the TLTRO in the middle of the year by increasing the tiering factor, doubling it to 12. However, we expect a somewhat stronger focus on these two instruments at the next meeting, which could also be reflected in the statement and is in our opinion likely to be presented as a willingness to act on the part of the ECB and the opportunities at its disposal. For the moment, therefore, the configurations of both the refinancing via TLTRO and the monetary policy instrument of graduated interest rates should remain unchanged. Possible adjustments would therefore more likely be attributed to the camp of monetary policy options for the near to medium-term future.

Conclusion and comment

Given that the ECB's monetary policy cards have been on the table since mid-December, the rise in interest rates since then must be seen in a closely correlated causal context. Does the market believe in an earlier rate hike before 2023? The ECB's inflation target seems to have come even more into focus and the fight against the consequences of the pandemic seems to have faded further into the background. Our baseline scenario does not foresee any interest rate hikes in 2022 – but in stormy times we have to reckon with everything, including possibly earlier monetary policy tightening. In fact, there is also disagreement in the ECB Governing Council. At least, this is what can be inferred from the minutes of the December meeting as well as recent comments surrounding the monetary policy decision-making body. A further focus on keeping the reins of action in hand as far as possible and thus maintaining the greatest possible degree of flexibility is likely to be not only in the interests of the designated hawks in the Council. Either way, the Eurosystem remains dominant, as only the maturities of the PEPP are to be reinvested by the end of 2024. In particular, for yields and spreads in the public sector, this suggests a correction or lateral movement rather than a further increase, as this asset class dominates the volume of all other investment alternatives under the purchase programmes. The rise in interest rates seems to have slowed down for the time being; the zero line was only crossed intraday and was not left behind on a permanent basis. On Wednesday, 19 January, the yield on ten-year German government bonds was briefly +0.02%. Already last Friday, the local benchmark – for something similar to the risk-free interest rate – was around 10bp lower at -0.08%. As is so often the case, President Lagarde will have to answer many questions. Most will revolve around inflation, coupled with the rise in yields of recent weeks and whether the ECB just wants to be on the sidelines by the end of the year.

Covered Bonds
EUR benchmark segment in Canada: our supply forecast already null and void

Author: Dr Frederik Kunze

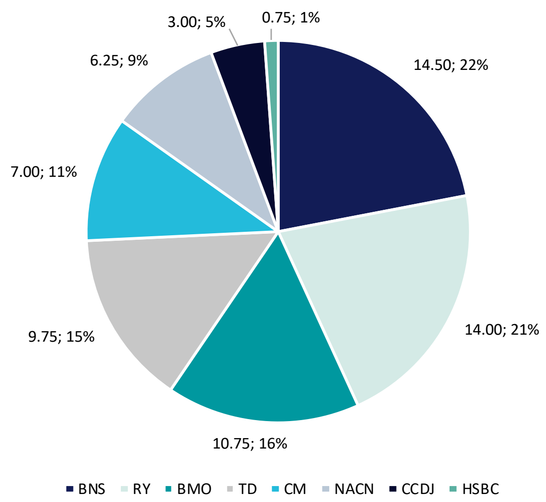
Canadian primary market in 2022: what comes next after such a rapid start?

The fact that Canada is one of the dynamic jurisdictions also in terms of issuance volume in the EUR benchmark segment is in itself nothing new. This is indicated not least by the comparatively high number of primary market appearances in recent years. We would also describe the fact that some issuers from Canada are regularly active in other currencies in addition to the euro when refinancing as normal funding behaviour. But what has come as more than a surprise over the past few trading days, apart from simply the number of deals, is above all the sizes chosen. The Bank of Montreal (BMO), for example, has reached levels not seen in more than ten years with its EUR benchmark of EUR 2.75bn. Even though this deal stands out, it is not really alone in terms of the Canadian primary market. After all, three more issuers in the shape of Royal Bank of Canada (RY or RBC), National Bank of Canada (NACN) and Bank of Nova Scotia (BNS), have successfully placed deals in the EUR benchmark market, while BNS and Canadian Imperial Bank of Commerce (CM or CIBC) respectively placed the first GBP and USD benchmarks successfully in the market as well. At the end of 2021, we issued a supply forecast for the Canadian EUR benchmark segment of EUR 9bn in 2022. As the four issuers mentioned have already placed EUR 7bn in 2022, which is still in its infancy, we inevitably want and need to address the question of whether the figure of EUR 9bn is too low. This is a question that we shall be exploring in our current focus article on Canada. In our opinion, covered refinancing outside of the euro must also be included in the analysis – even though it is not of primary interest to EUR investors – since Canadian issuers in particular are highly flexible in their choice of issuing currency.

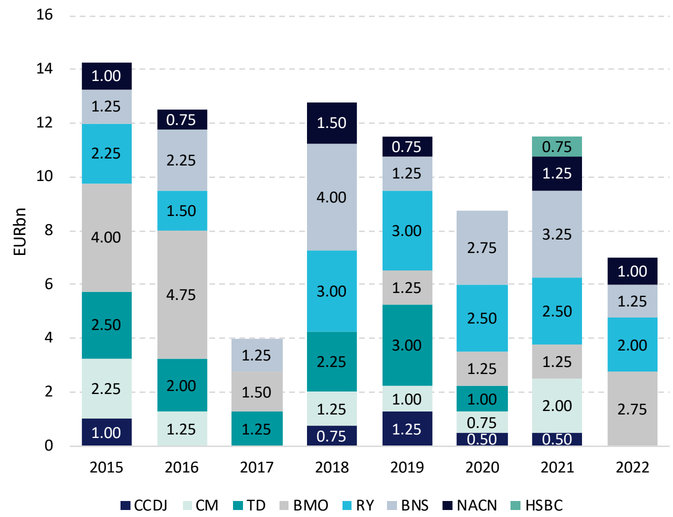
EUR benchmarks from Canada: outstanding volume of EUR 66bn

The Canadian EUR benchmark segment currently has an outstanding volume of EUR 66bn, spread over 55 bonds. In addition to BMO, BNS, RBC, CIBC and NACN mentioned above, active issuers also include HSBC Bank Canada (HSBC), Toronto Dominion (TD) and Fédération des caisses Desjardins du Québec (CCDJ). In 2021, EUR benchmarks with a total volume of EUR 11.5bn were placed on the primary market, although this figure does not include the two taps of the CIBC bond placed at the end of September for EUR 250m each (26 October and 8 December). The issuance volume in 2021 was spread across a total of eleven bonds from seven issuers. According to this metric alone, a high volume of issuance activity could be expected for 2022 (four bonds from four issuers), with the three largest issuers from Canada (BNS, RBC and BMO) having already approached investors. Nevertheless, it is not only in the case of BMO that the issuance quantities are higher than those previously observed, as we will explain below.

CA: Outstanding volume by issuer (EUR BMK)



CA: Issues by year (EUR BMK)



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

Canadian EUR benchmark issuers: 2022 already stands out

The following table summarises the eight active EUR benchmark issuers from Canada. Before we go into the history of the EUR benchmarks, we would like to briefly highlight the fundamental issuance potential, which is summarised on the left of the table. There is considerable scope for the issuance of covered bonds on the market, although the most recent deals are not yet included in the pool reports, which are mostly based on the reporting date of 31 December 2021. The overcollateralisation ratios are consistently above 20% and the regulatory 5.5% cap of the OSFI (or the AMF in the case of CCDJ) with regard to covered bond issues has not yet been reached. We also see the repatriation of issues in CAD, the majority of which were used for refinancing via the Canadian central bank, as one reason for the upcoming issuing scope. As previously indicated, 2022 already stands out clearly on the primary market side with four deals and a volume of EUR 7bn. Based on a comparison with the previous years of 2021, 2020 and 2019 alone, more deals can certainly be expected. In each of these years, CCDJ was represented on the market with at least one deal in excess of EUR 500m. In purely mathematical terms, there would also be at least one CIBC issue in 2022 after two deals in 2021 and one bond each in 2020 and 2019. For HSBC, a EUR benchmark in 2022 would be the second placement ever in this segment and we still think an issue in the range of EUR 500m to EUR 750m is realistic. In the case of BMO, bearing in mind its own issuance history, another deal seems less likely to us than would be the case for BNS, for example, which still has another maturity in 2022 (EUR 1.25bn in September 2022). For 2022, maturities in the EUR benchmark segment initially totalled EUR 8bn, with the first two falling in January (BNS: EUR 1.25bn on 13 January; NACN: EUR 1bn on 26 January). As an interim conclusion, it should be noted that, firstly, the EUR maturity profile, but also secondly, the in part unusually high issuance sizes, would not initially strongly suggest a continuation of the momentum. However, there is no lack of issuance potential based on the cover pool information. In addition, we would assume a continued buoyant property market in Canada, which would point to growing cover pools.

Overview: Canadian EUR issuers [1]

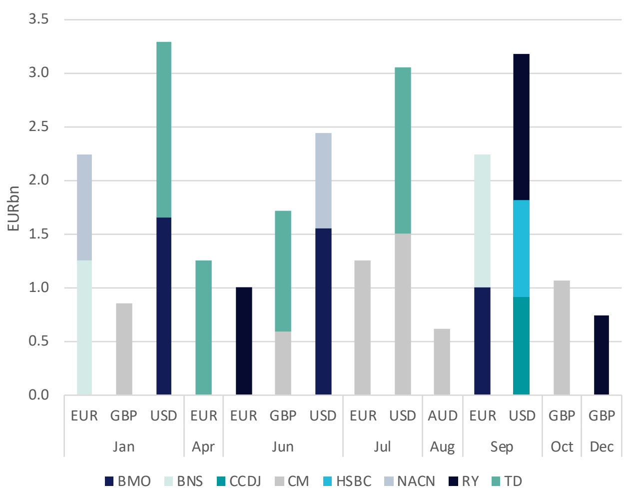
	Cover pool volume (CAD m)	Total out-standing (CAD m)	OC	OC[3] CMHC Guide	OSFI Limit[4]	EUR BMK 2022ytd		EUR BMK 2021		EUR BMK 2020		EUR BMK 2019	
						EUR bn	*Deals*	*EUR bn*	*Deals*	*EUR bn*	*Deals*	*EUR bn*	*Deals*
BMO	34,532	26,128	32.2%	6.95%	2.83%	2.75	1	1.25	1	1.25	1	1.25	1
BNS	70,661	50,082	41.1%	6.47%	4.50%	1.25	1	3.25	2	2.75	2	1.25	2
CCDJ	12,687	9,294	36.5%	4.36%	2.91%[5]	-	-	0.50	1	0.50	1	1.25	2
CIBC	49,267	26,650	84.9%	7.37%	3.16%	-	-	2.00	2	0.75	1	1.00	1
NACN	14,988	12,171	23.1%	9.14%	2.81%	1.00	1	1.25	2	-	-	0.75	1
RY	76,735	41,110	62.9%	7.65%	2.34%	2.00	1	2.50	2	2.50	2	3.00	2
TD[2]	59,433	25,558	132.5%	5.26%	1.56%	-	-	-	-	1.00	1	3.00	2
HSBC[2]	9,529	3,856	147.1%	10.33%	3.51%	-	-	0.75	1	-	-	-	-
					∑	**7.00**	**4**	**11.50**	**11**	**8.75**	**8**	**11.50**	**11**

Source: Issuers, market data, NORD/LB Markets Strategy & Floor Research;
[1] Reporting date 31.12.2021; [2] Reporting date 30.11.2021; [3] OC as basis for OSFI limit; [4] OSFI limit = 5.5%; [5] AMF limit 5.5%;

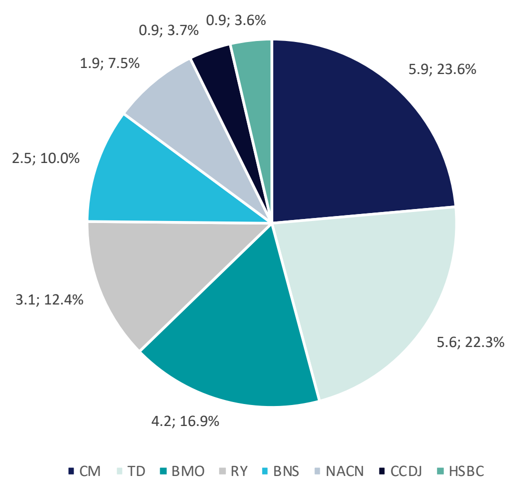
Covered funding of active EUR benchmark issuers outside the euro

As mentioned above, the Canadian EUR benchmark issuers are by no means exclusively active in the single currency. Depending on price competitiveness, FX funding can therefore be more pronounced or even clearly inhibited by EUR placements. Generally, however, this also means that EUR maturities can be "redeemed" by bonds in other currencies in the same way as in the reverse case. For the full year 2022, we have summarised the maturity profile with regard to Canadian covered bonds in the currencies EUR, GBP, USD and AUD in the following charts. The US dollar accounts for by far the largest share of maturities with the equivalent of EUR 12bn. After the maturities in euros (EUR 8bn), there are also significant repayments for covered bonds in British pounds (EUR 4.4bn). The largest shares of maturities in 2022 are also attributable to CIBC, TD and BMO, with TD and BMO in particular accounting for the largest absolute amounts of USD maturities in 2022 (each equivalent to EUR 3.2bn).

CA: Covered bond maturities in 2022 (EUR, USD, GBP, AUD; in EUR bn)



CA: Distribution of covered bond maturities in 2022 (EUR, USD, GBP, AUD; in EUR bn)



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

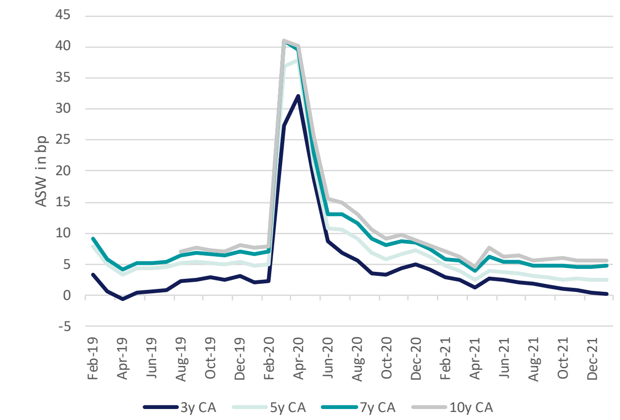
Summary: is our forecast of EUR 9bn still viable?

The fact that we were more surprised by the size of the bonds placed in 2022 than by their cumulative appearance also complicates the outlook for the rest of the year. For example, the thought at least occurs that some Canadian issuers have made the most of the favourable market conditions. Theoretically, this could result in a marked restraint on funding over the course of the year. On the other hand, the maturities in 2022 – especially for USD deals – are very high in volume. If the EUR/USD cross currency basis swap quotations were to create or continue creating opportunities for EUR issues, this could provide a further boost there. This view can also be applied to the GBP segment. Also, since TD, a major issuer (in terms of 2022 maturities in EUR, USD and GBP) has not yet put in an appearance on the market and other institutions are not likely to have already completed their EUR funding for 2022 in January, we now believe that our original forecast of EUR 9bn is by far too low. As a result, we now expect a total issuance volume of EUR 14bn rather than the previous forecast of EUR 9bn, inter alia, following a bumper start to the year.

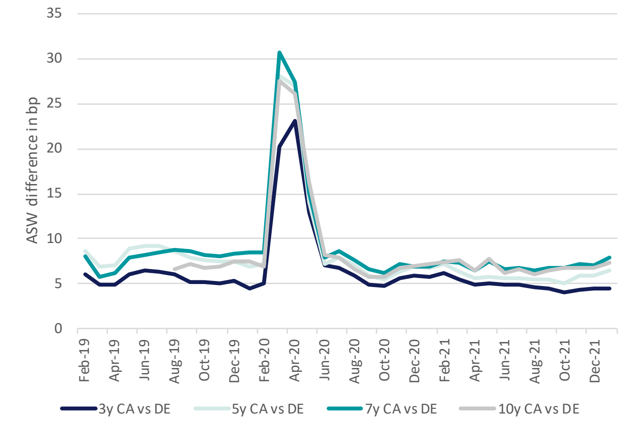
Demand for EUR benchmarks from Canada and spread development

More pronounced activity on the primary market as well as the initial deals from Canada in 2022 should meet with keen investor interest. The spread pick-up compared to Pfandbriefe, for example, and the high credit quality are points in favour of Canadian covered bonds. This combination is particularly favourable for investors who are less focused on regulatory classification. As such, it is our view, that in a best-case scenario Canadian EUR benchmarks can be used as Level 2A assets in the context of LCR management. The risk weight according to CRR is 20% and there is no eligibility under PEPP or APP, although eligibility under ECB Collateral Management is certainly possible.

ASW spreads: Canada (generic)



Spread difference: Canada vs. Germany



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

Conclusion

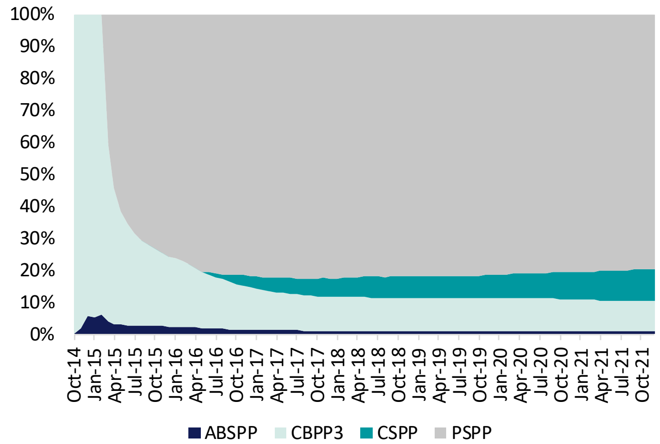
An impressive start to the year with regard to Canadian EUR benchmarks has forced us to adjust our primary market supply forecast from EUR 9bn to EUR 14bn very early in the new year. Nevertheless, forecasting uncertainty remains high. Following the spate of deals in the first month of the year, some Canadian issuers may look even more closely than usual at cross-currency basis swap spreads in 2022.

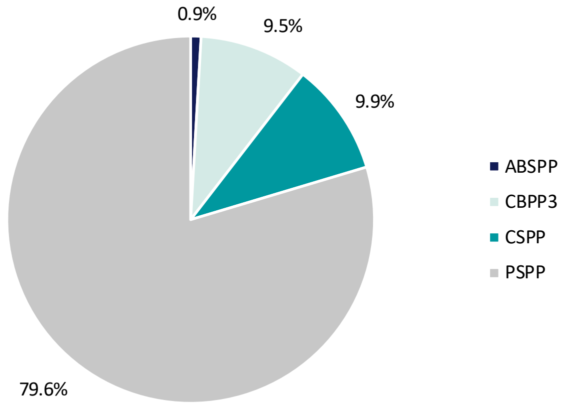
ECB tracker

Asset Purchase Programme (APP)

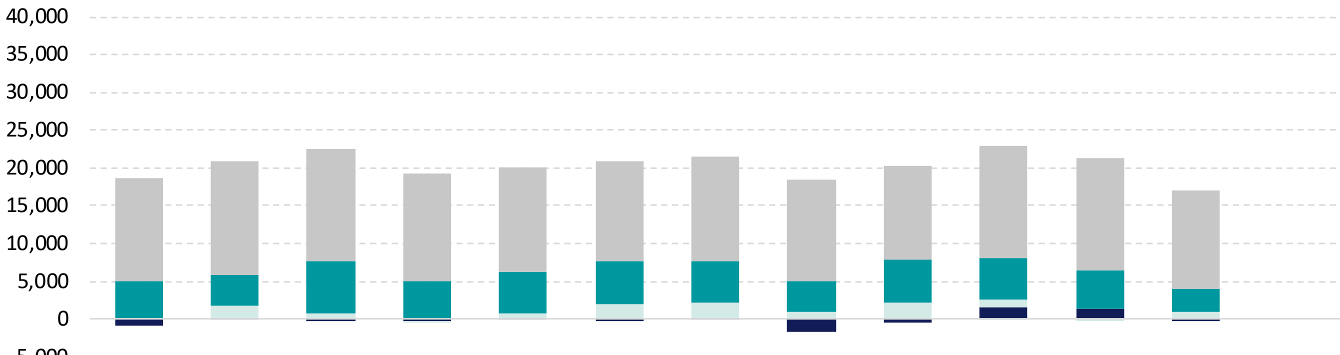
	ABSPP	CBPP3	CSPP	PSPP	APP
Nov-21	28,757	297,586	307,026	2,479,130	3,112,499
Dec-21	28,477	298,167	309,676	2,487,136	3,123,456
Δ	-269	+942	+3,007	+12,989	+16,669

Portfolio structure





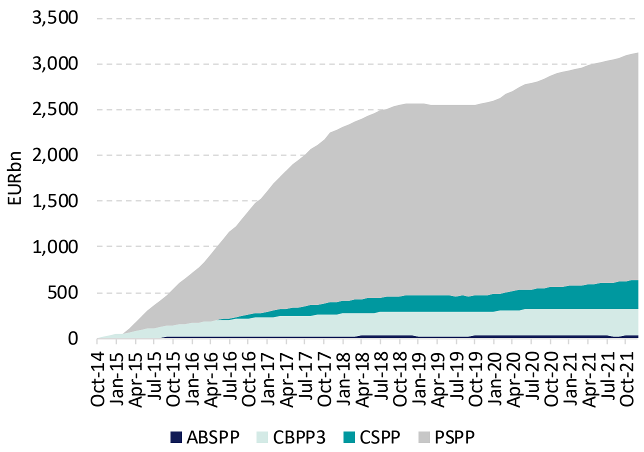
Monthly net purchases (in EURm)



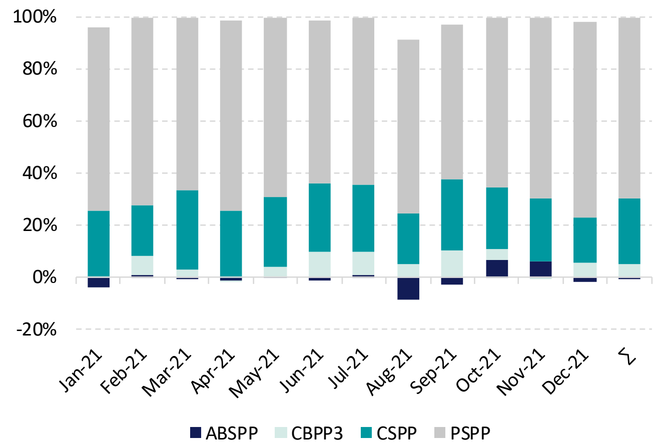
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
APP	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,199	16,669	239,911
PSPP	13,655	15,129	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,814	12,989	167,988
CSPP	4,924	4,064	6,929	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

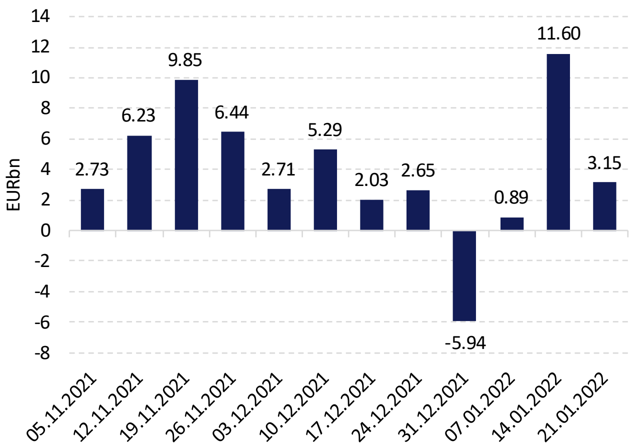
Portfolio development



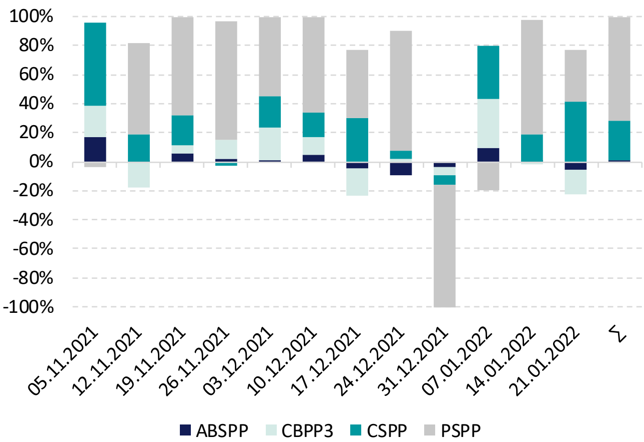
Distribution of monthly purchases



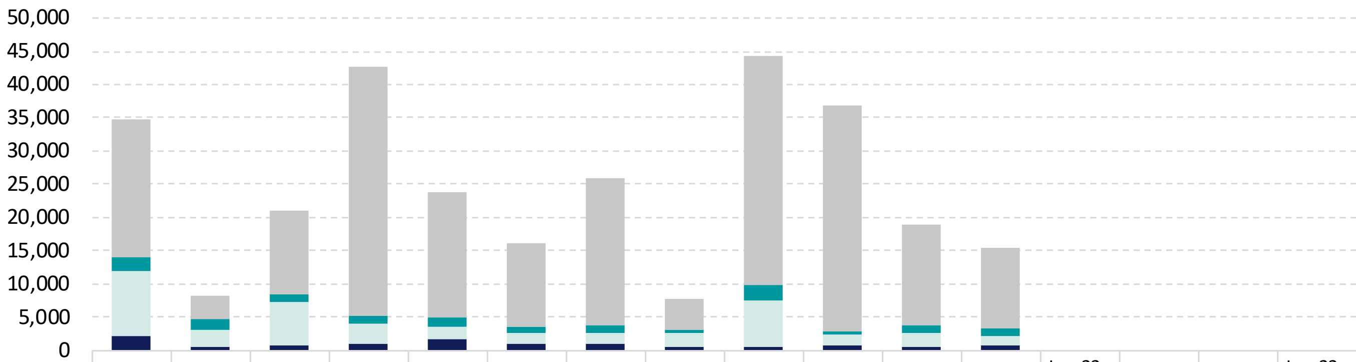
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

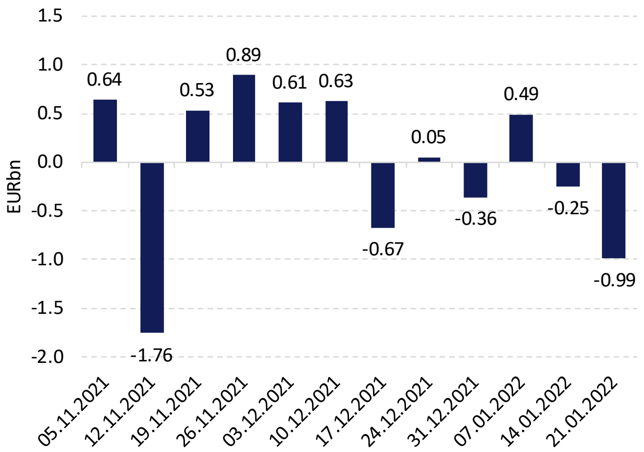


	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-22 - Dec-22	2020	2021	Jan-22 - Dec-22
APP	34,831	8,220	20,977	42,698	23,921	16,167	25,934	7,807	44,427	36,819	18,839	15,418	296,058	262,253	246,995	296,058
PSPP	20,906	3,625	12,603	37,533	18,999	12,638	22,198	4,841	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

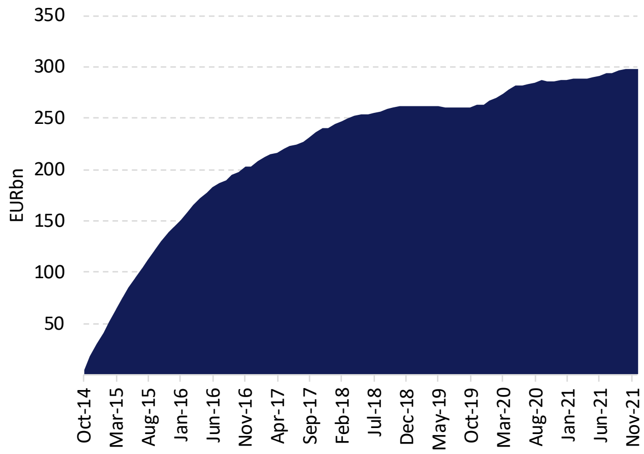
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

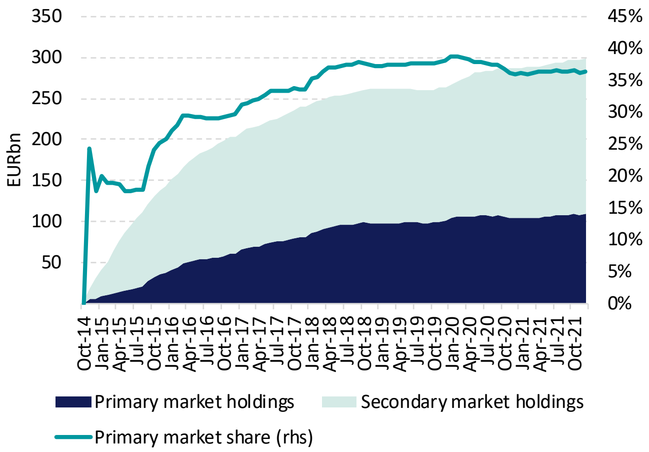
Weekly purchases



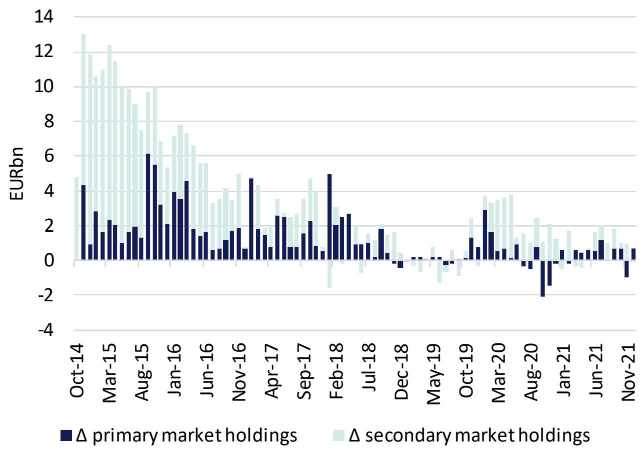
Development of CBPP3 volume



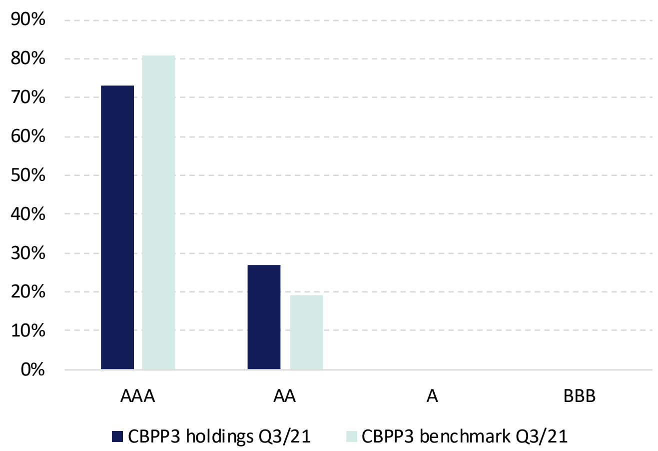
Primary and secondary market holdings



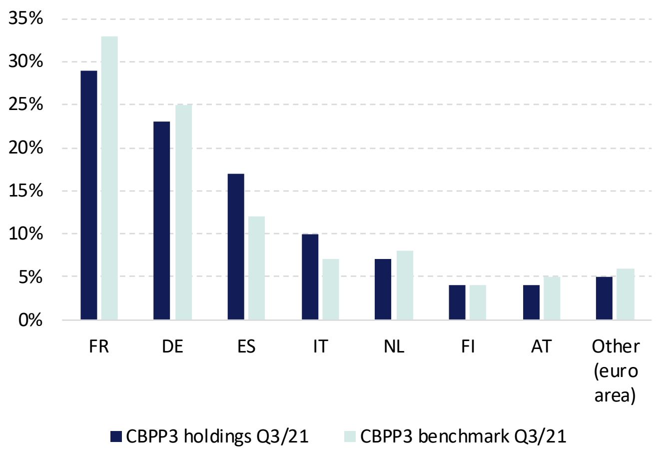
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



Distribution of CBPP3 by country of risk

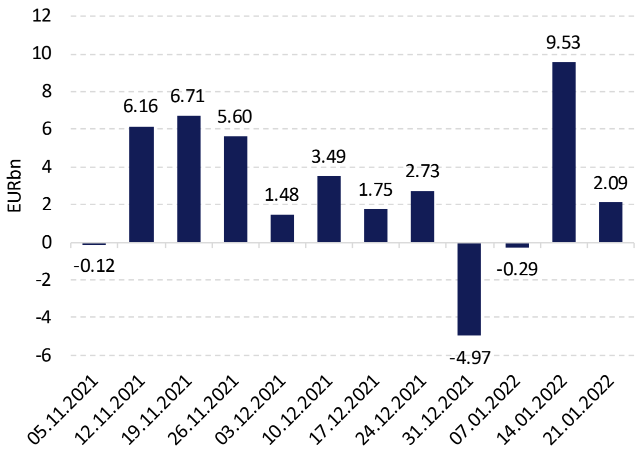


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

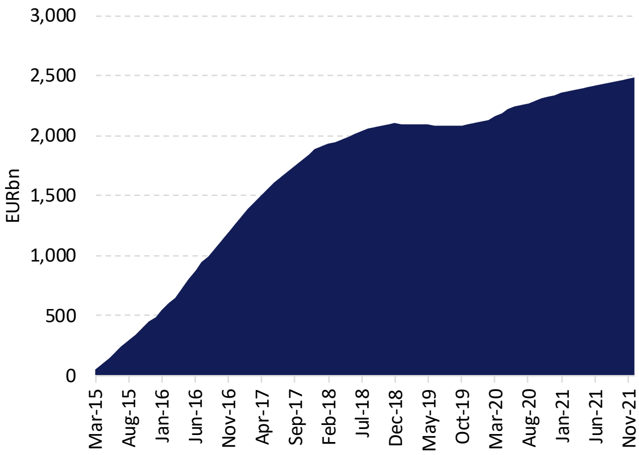
NORD/LB

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



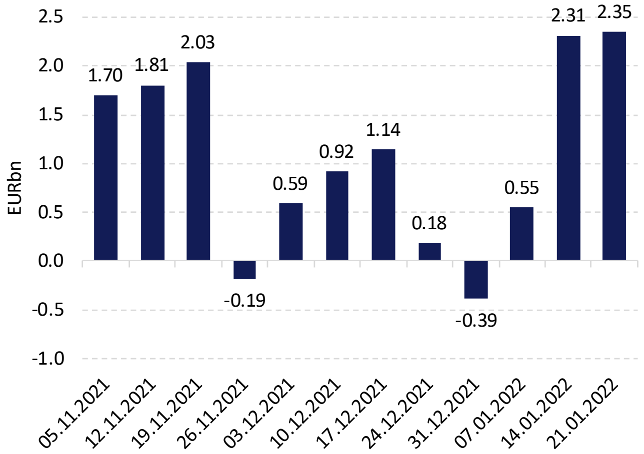
Overall distribution of PSPP buying at month-end

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**

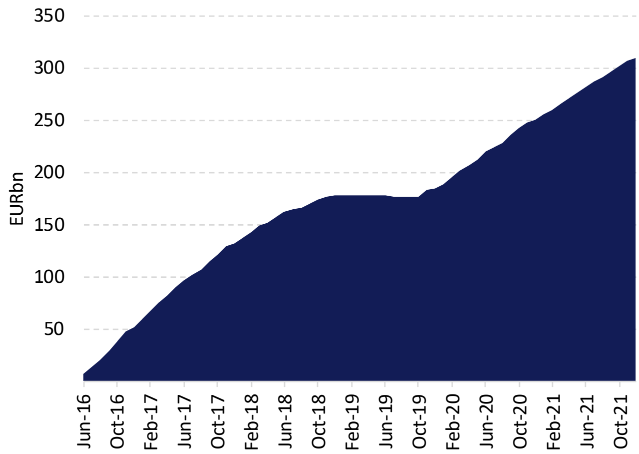
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

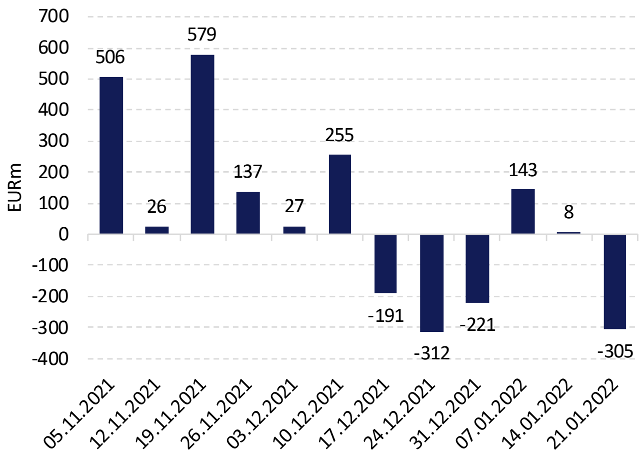


Development of CSPP volume

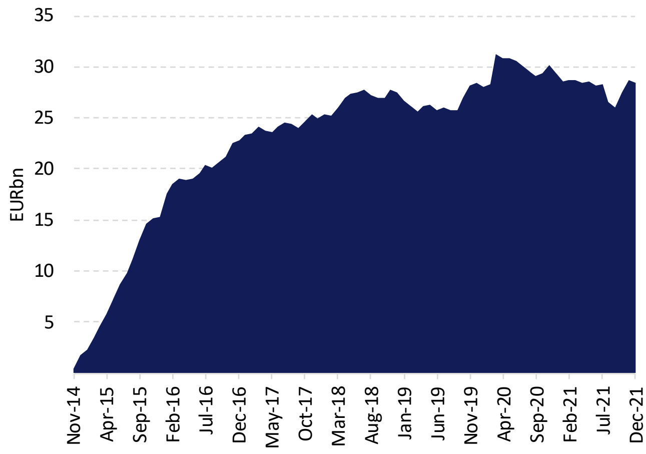


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



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

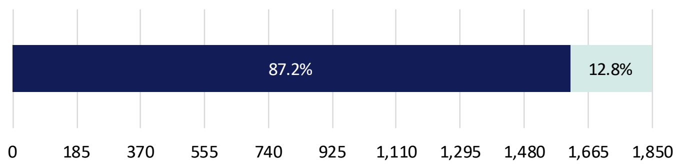
NORD/LB

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

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

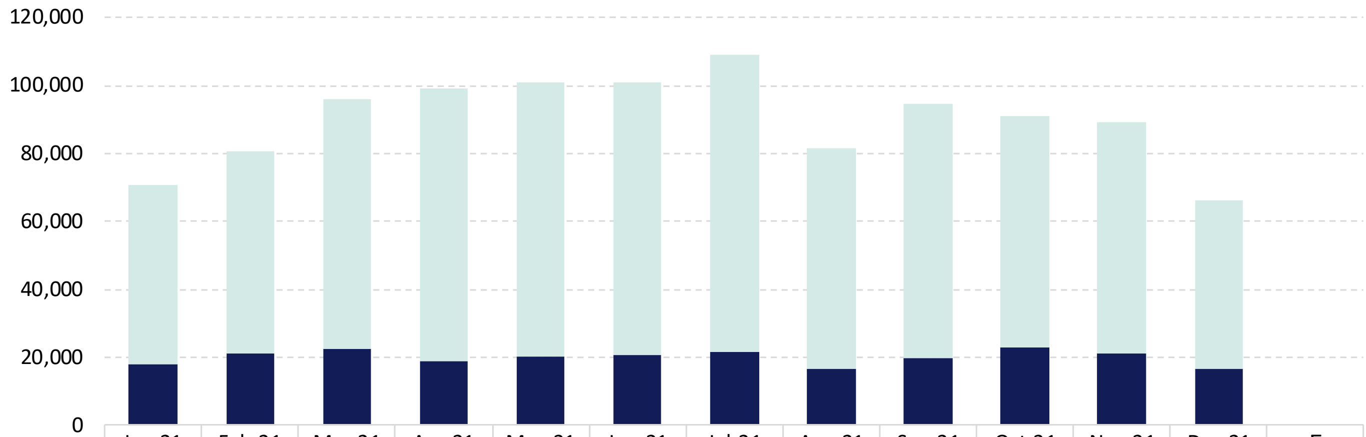
Volume already invested (in EURbn)



Estimated portfolio development

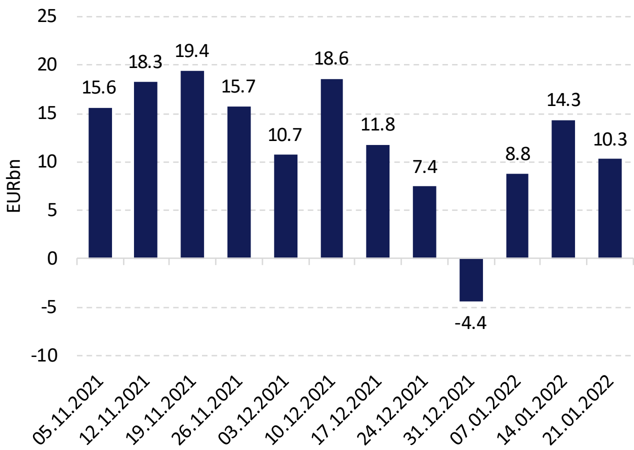
Assumed pace of purchases	Weekly net purchase volume	PEPP limit hit in ...
Average weekly net purchase volume so far	EUR 17.0bn	14 weeks (29.04.2022)

Monthly net purchases (in EURm)

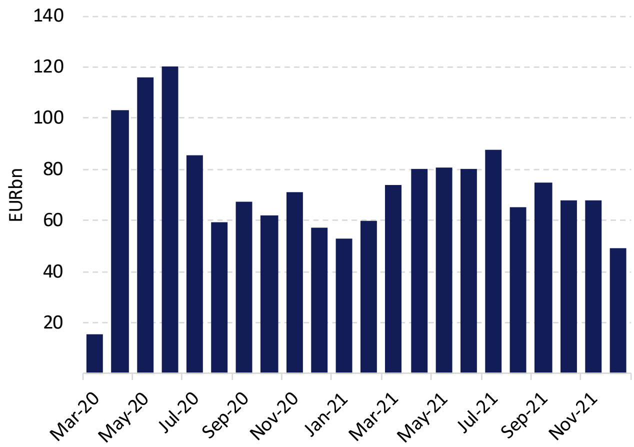


	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
∑	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,244	66,044	1,080,31
PEPP	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	840,400
APP	17,846	20,915	22,561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

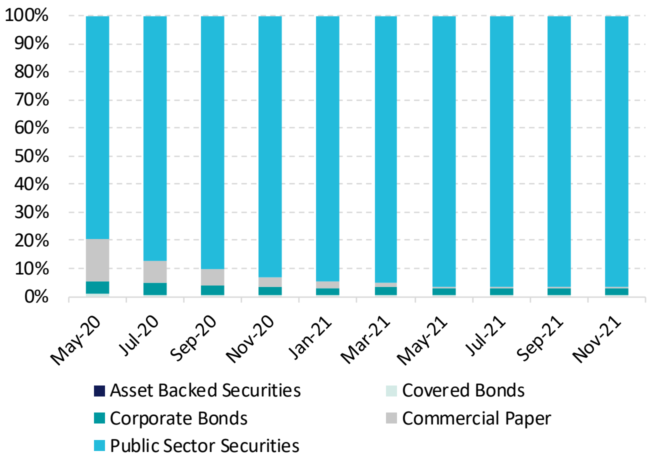


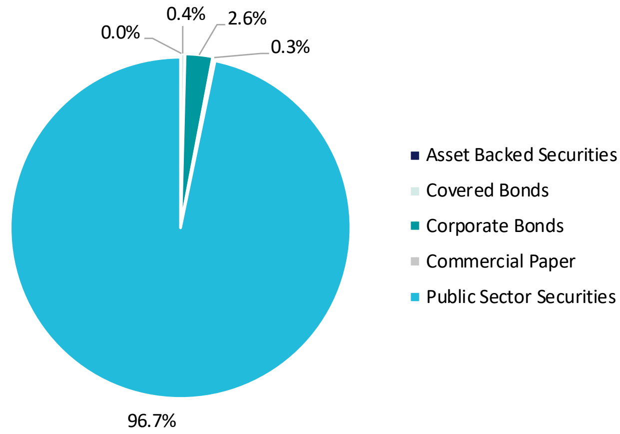
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

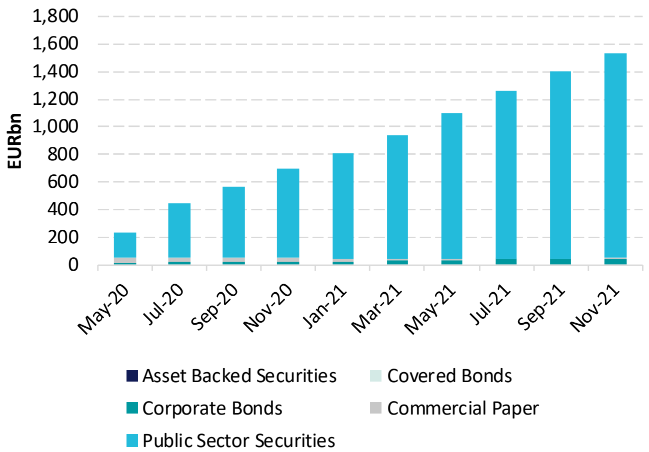
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Sep-21	0	6,079	37,139	3,314	1,353,076	1,399,609
Nov-21	0	6,079	39,871	4,032	1,485,567	1,535,549
Δ	0	0	+2,732	+717	+132,491	+135,940

Portfolio structure

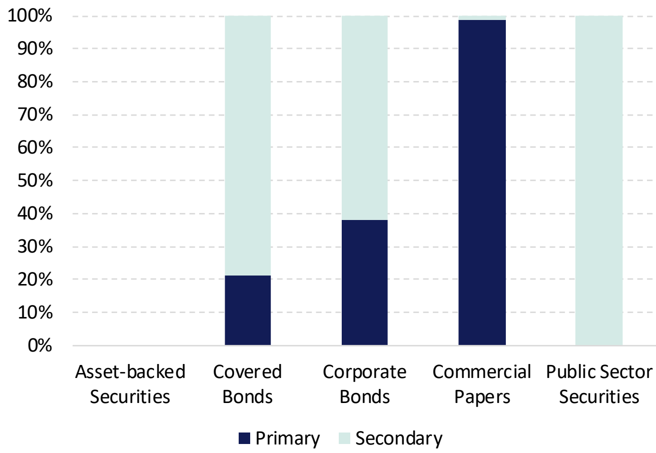




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

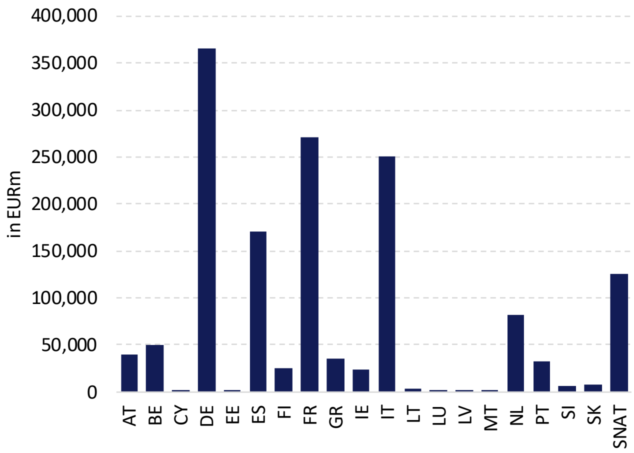
Nov-21	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,781	15,101	24,770	3,989	43
Share	0.0%	0.0%	21.4%	78.7%	37.9%	62.1%	98.9%	1.1%

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

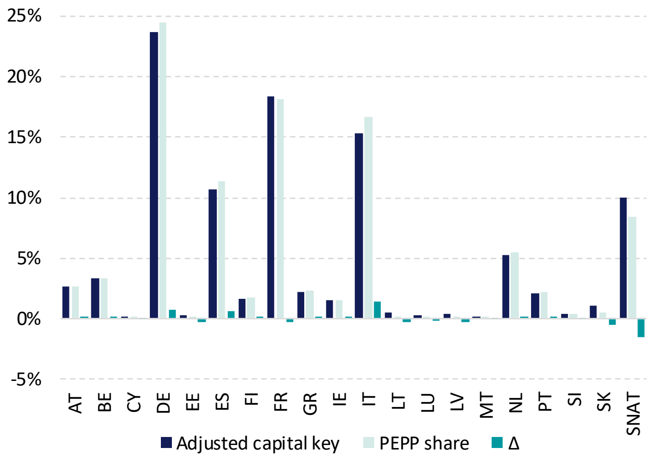
Breakdown of public sector securities under the PEPP

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

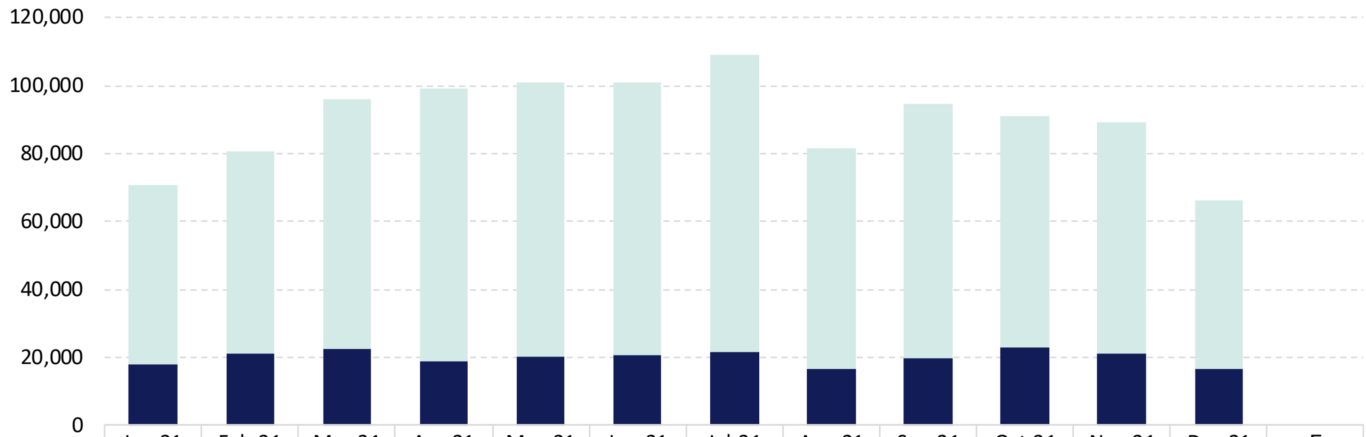
NORD/LB

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

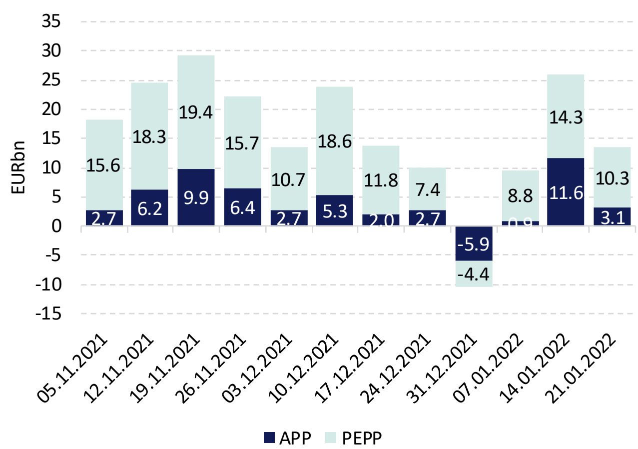
	APP	PEPP	APP & PEPP
Nov-21	3,112,499	1,548,190	4,660,689
Dec-21	3,123,456	1,597,565	4,721,021
Δ	+16,669	+49,375	+66,044

Monthly net purchases (in EURm)

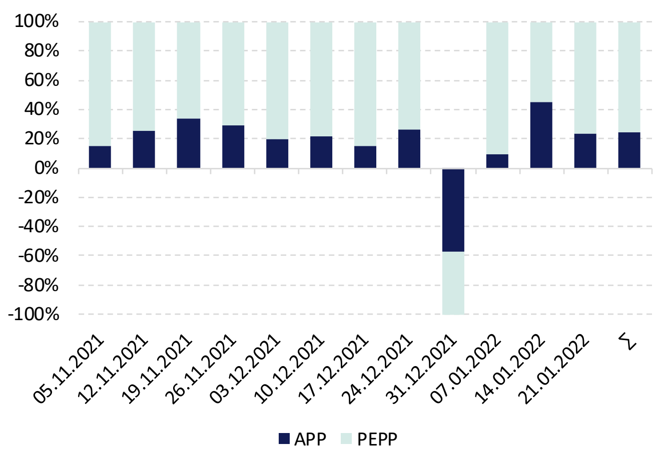


	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	∑
∑	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,244	66,044	1,080,31
PEPP	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	840,400
APP	17,846	20,915	22,561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

Weekly purchases



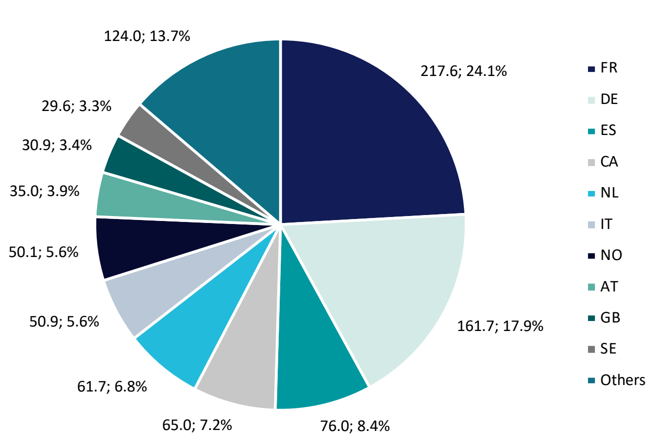
Distribution of weekly purchases



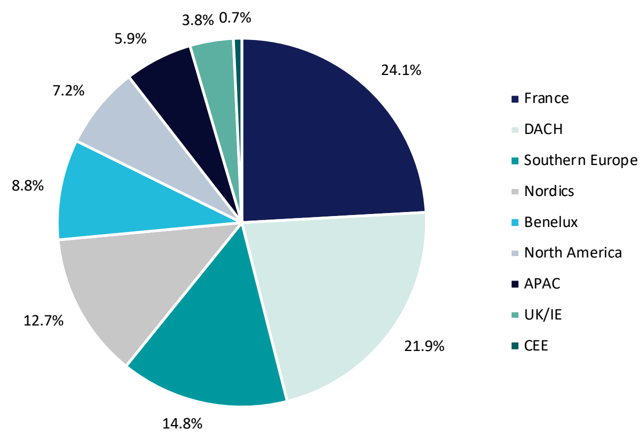
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



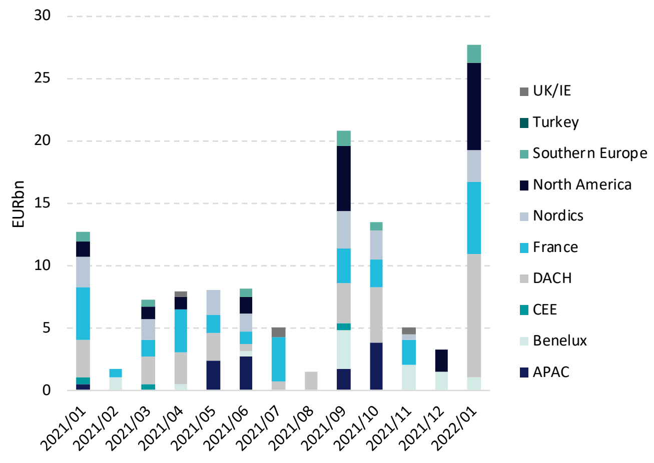
EUR benchmark volume by region (in EURbn)



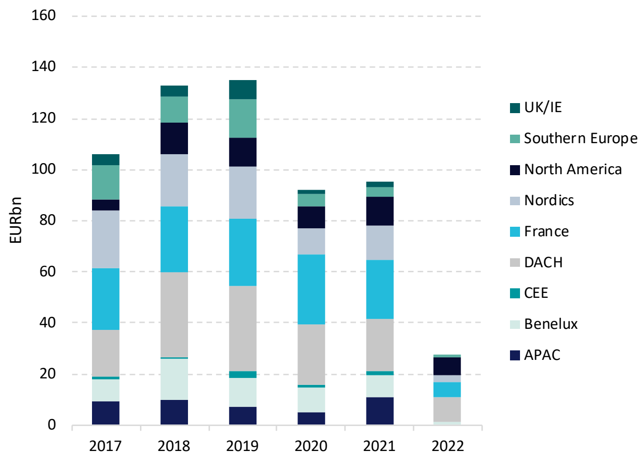
Top-10 jurisdictions

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	217.6	209	11	0.93	10.2	5.7	0.83
2	DE	161.7	238	16	0.62	8.4	4.6	0.41
3	ES	76.0	61	4	1.14	11.8	3.8	1.81
4	CA	65.0	54	0	1.17	6.1	3.4	0.21
5	NL	61.7	64	0	0.91	11.7	7.8	0.71
6	IT	50.9	60	1	0.82	9.3	4.4	1.29
7	NO	50.1	58	9	0.86	7.4	4.1	0.38
8	AT	35.0	64	2	0.54	9.9	6.3	0.57
9	GB	30.9	37	1	0.86	8.5	3.5	0.91
10	SE	29.6	36	0	0.82	7.6	3.4	0.41

EUR benchmark issue volume by month



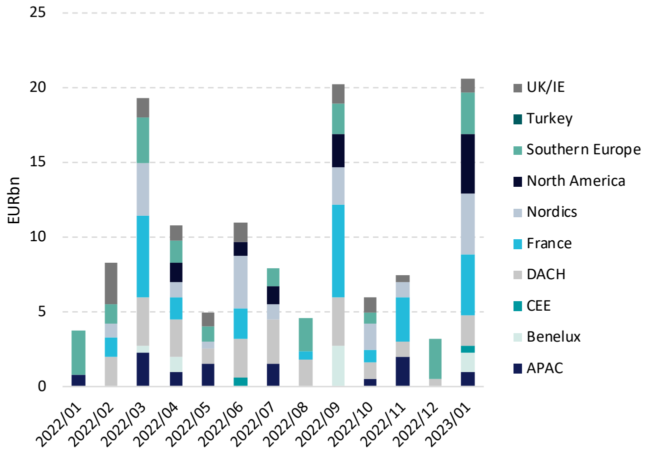
EUR benchmark issue volume by year



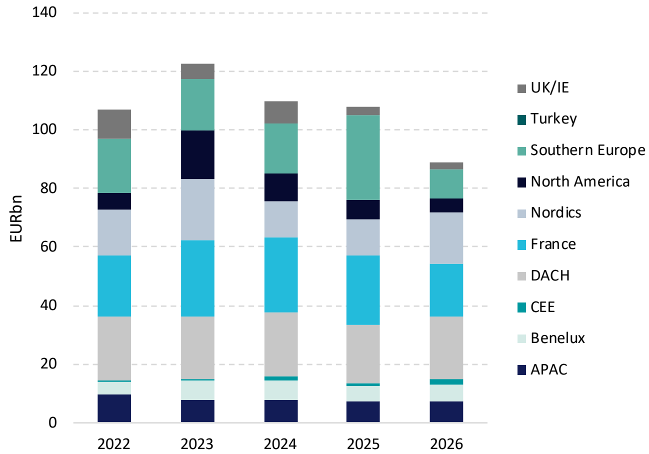
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

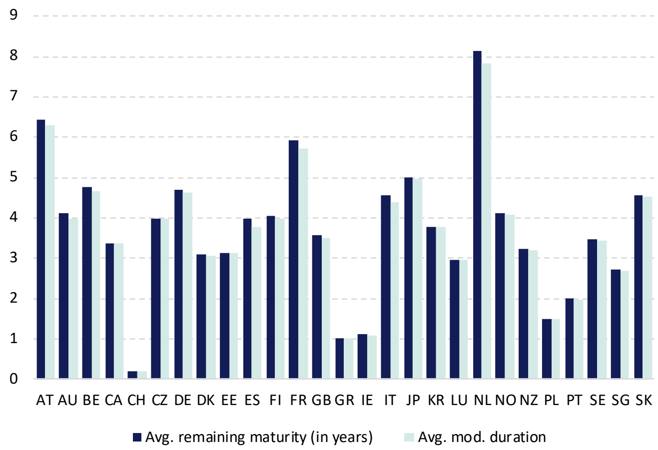
EUR benchmark maturities by month



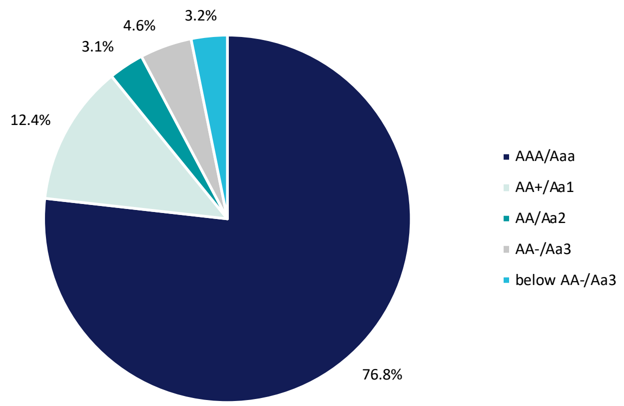
EUR benchmark maturities by year



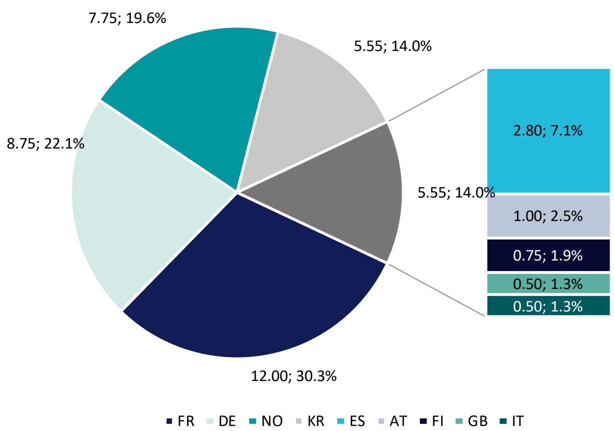
Modified duration and time to maturity by country



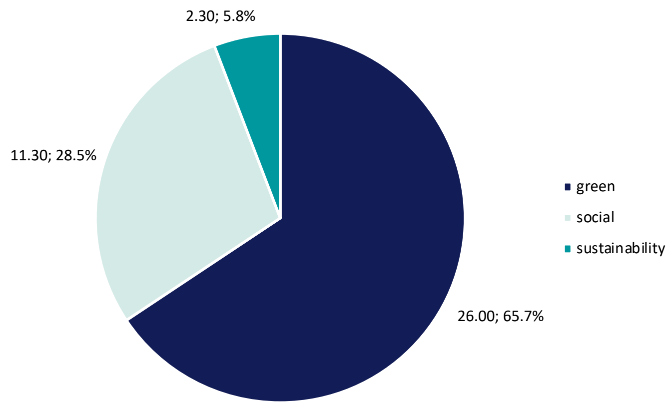
Rating distribution (volume weighted)



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

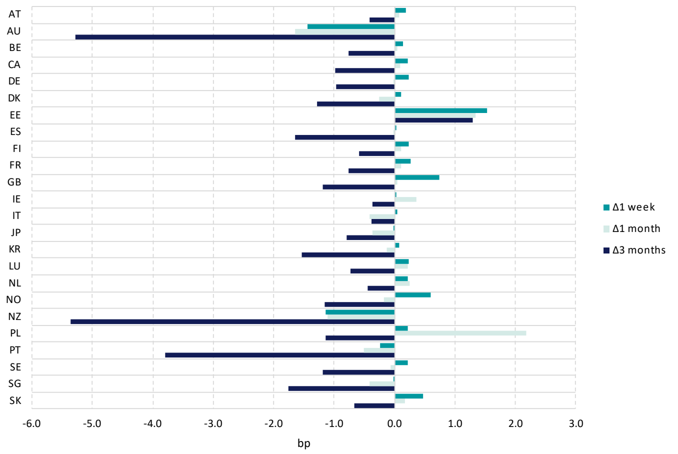


EUR benchmark volume (ESG) by type (in EURbn)

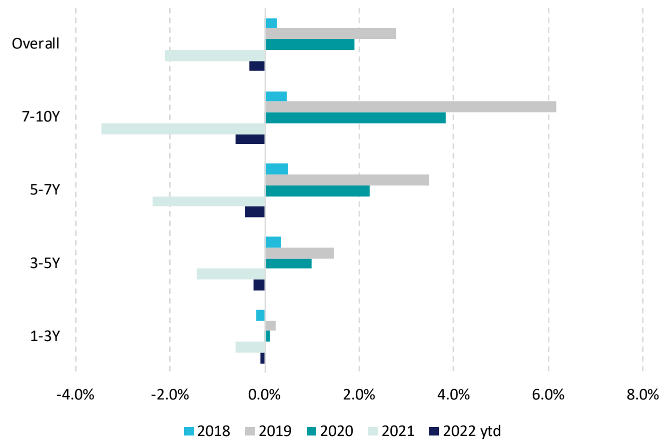


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread development by country

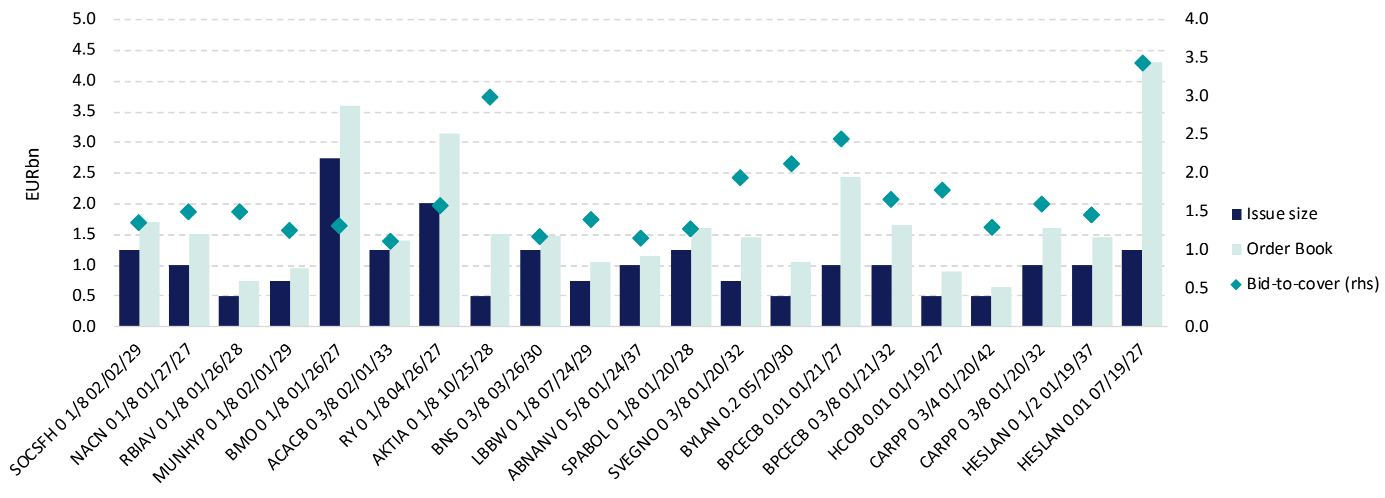


Covered bond performance (Total return)



Spread development (last 15 issues)

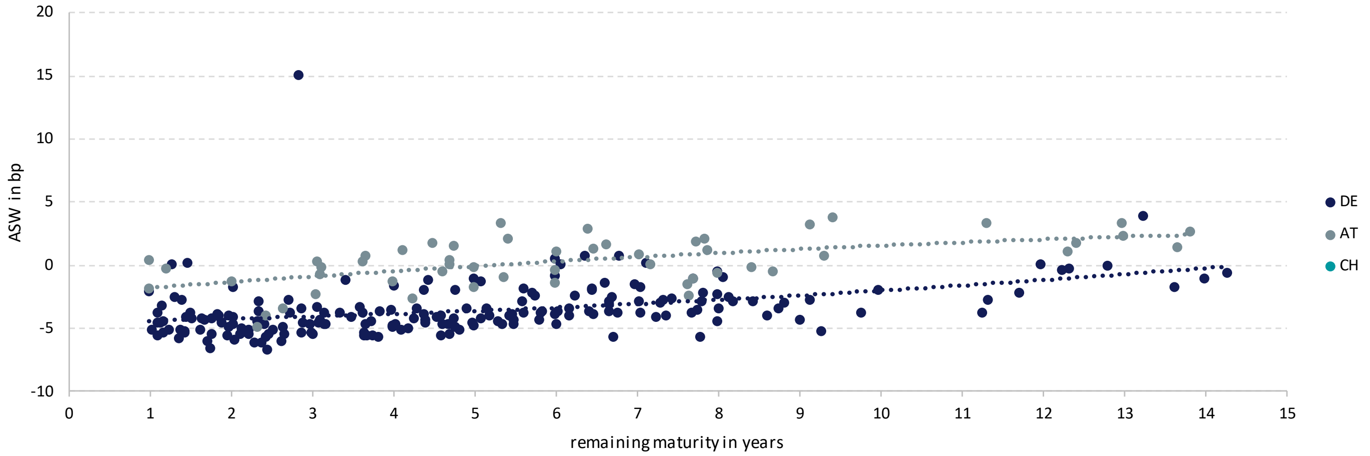
Order books (last 15 issues)



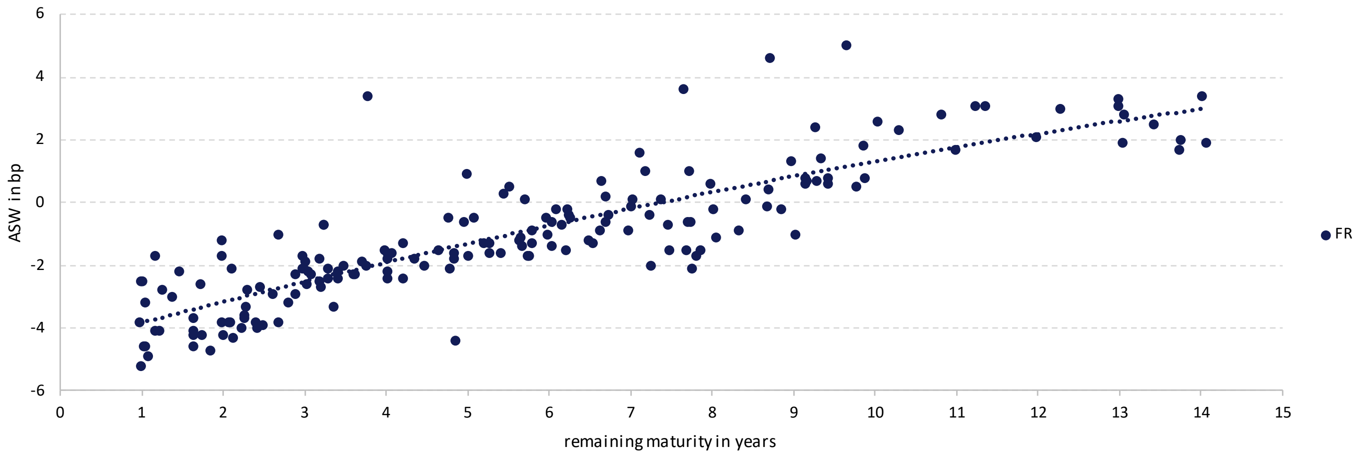
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

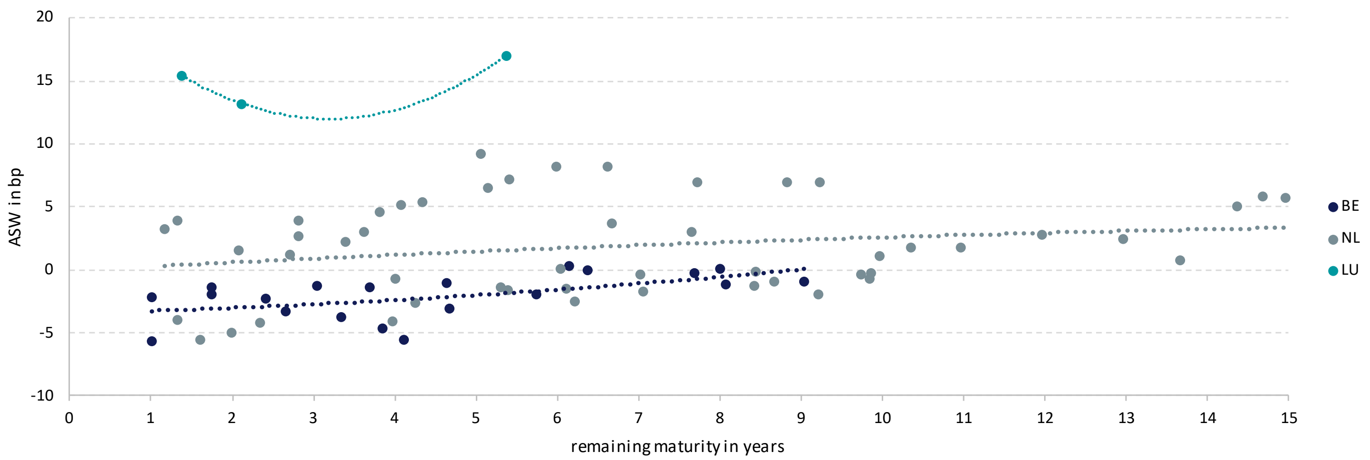
DACH



France

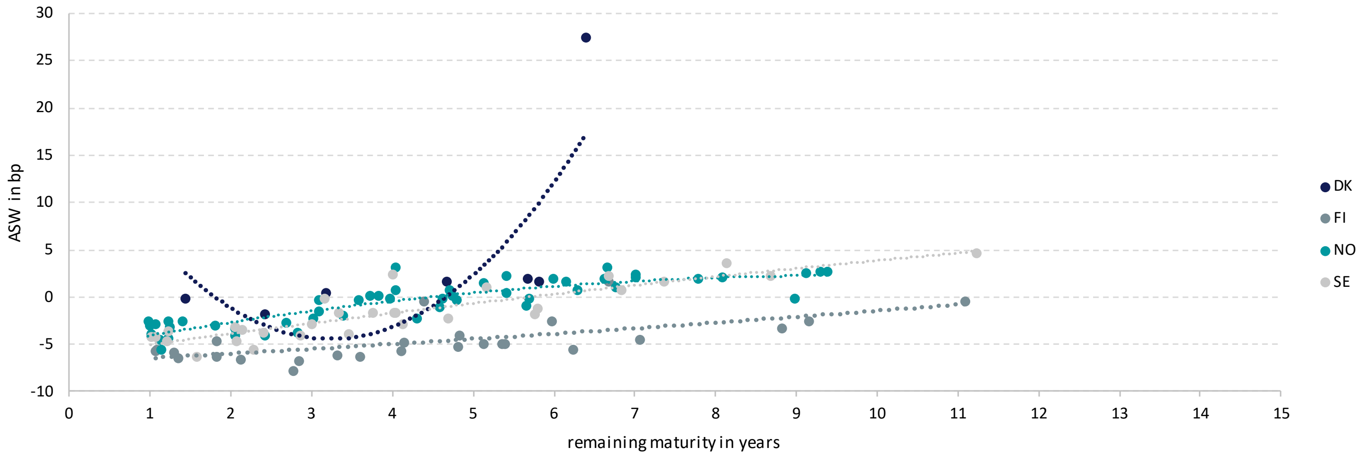


Benelux

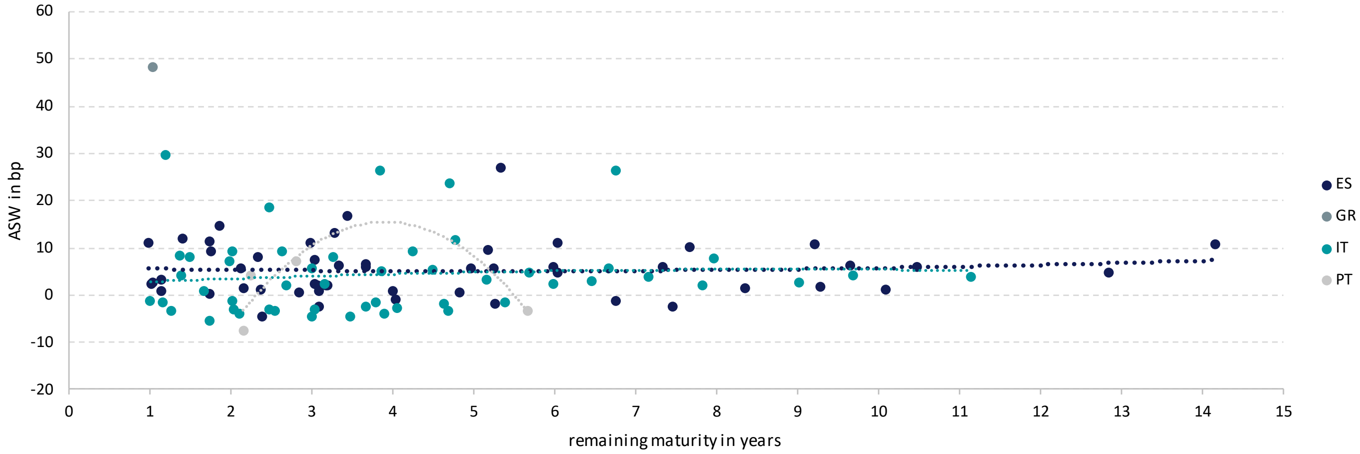


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

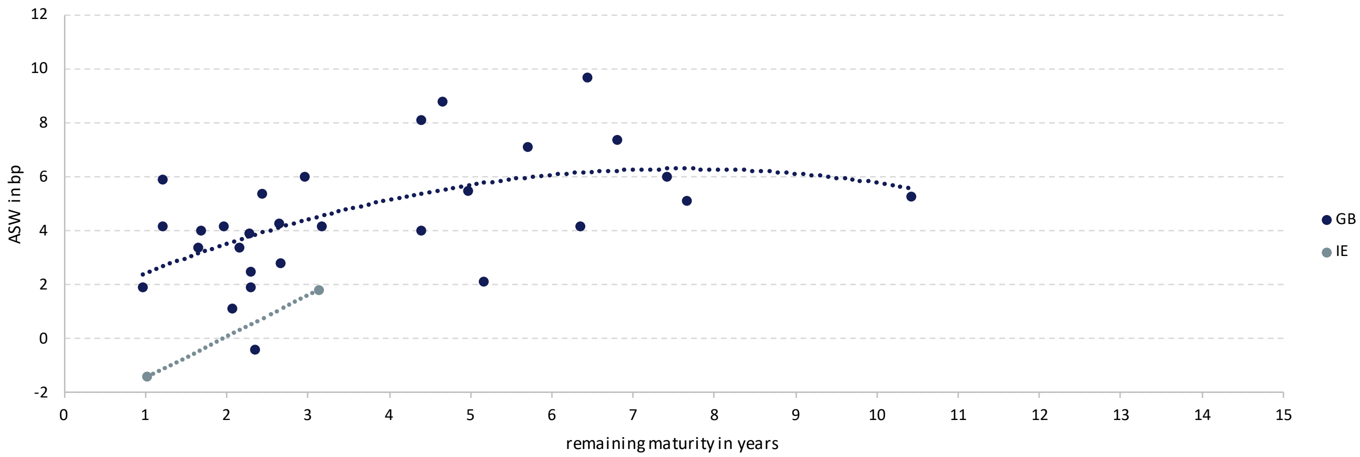
Nordics



Southern Europe

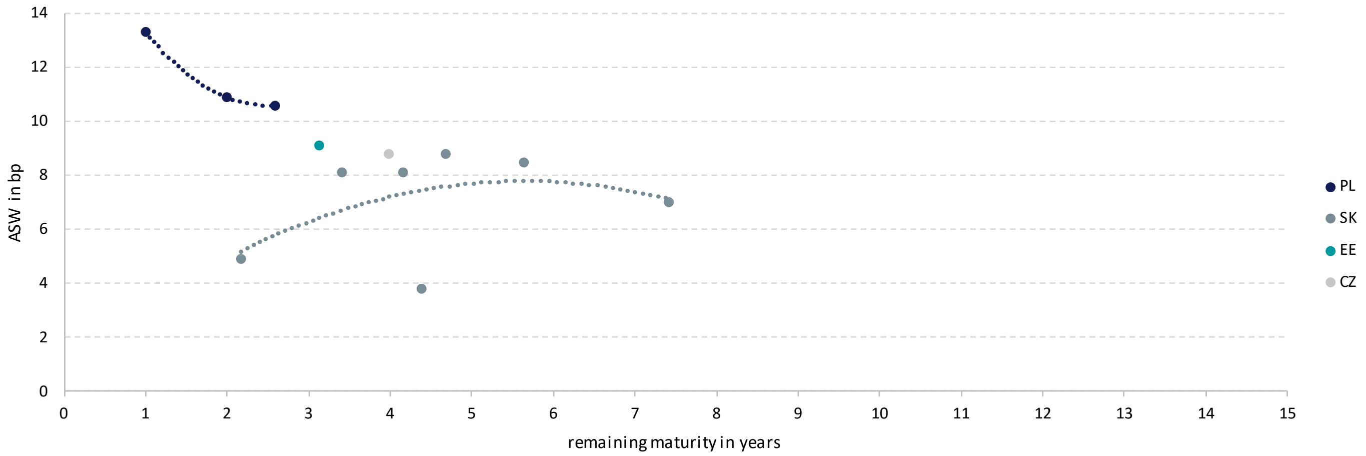


UK/IE

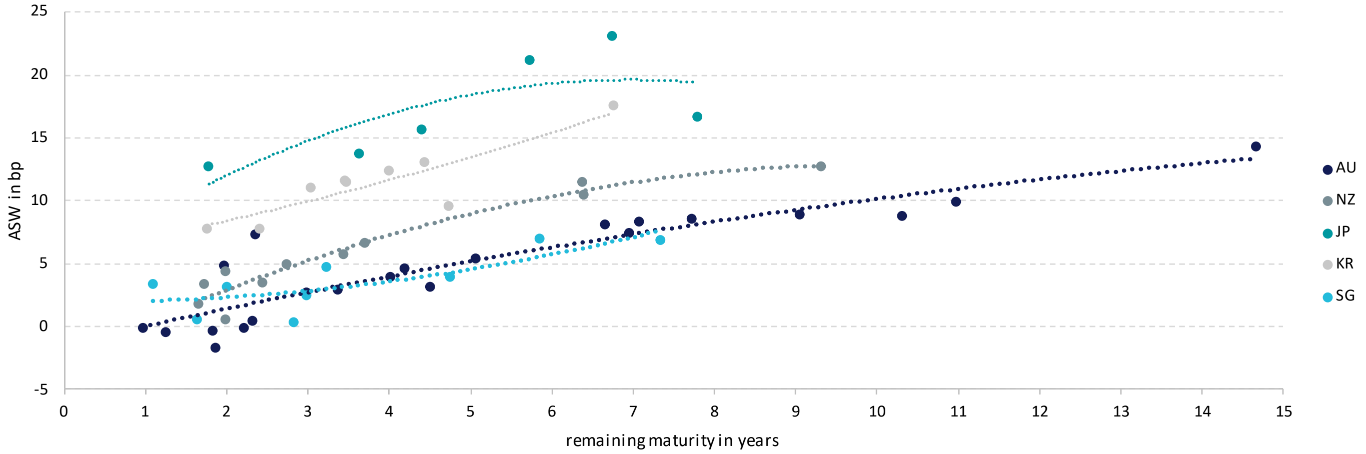


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

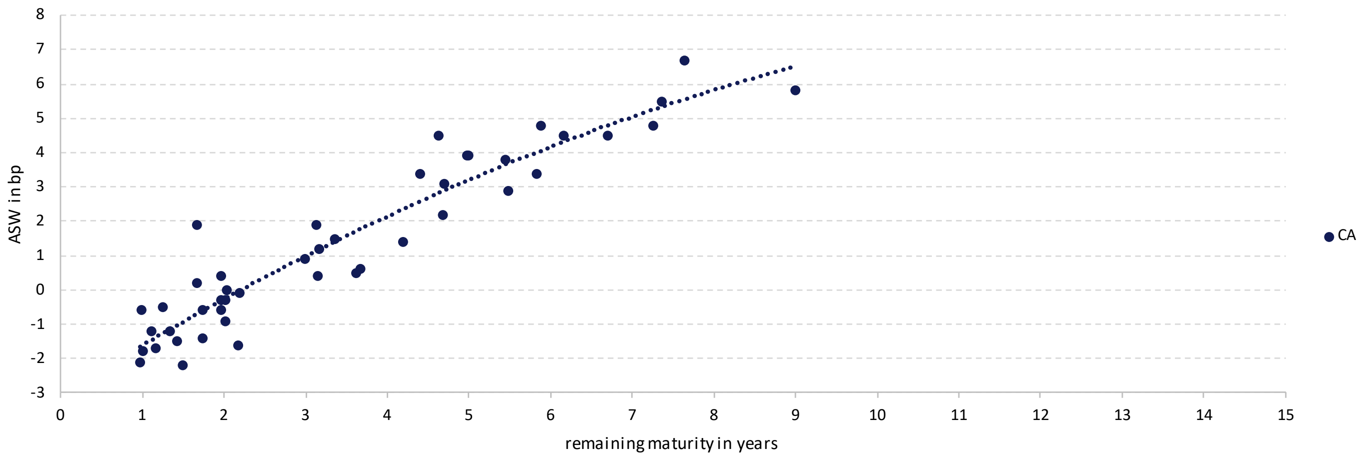
CEE



APAC



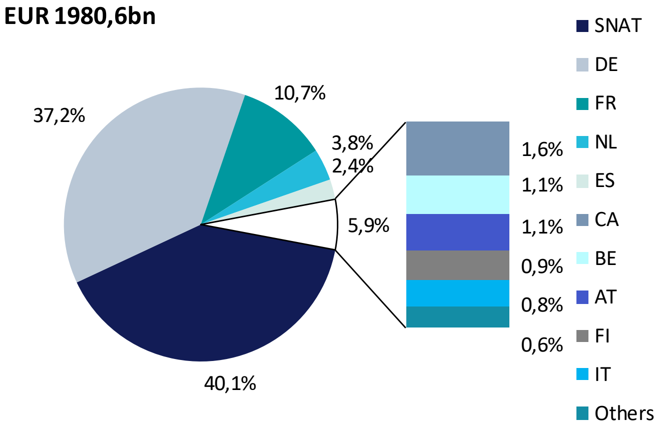
North America



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

Charts & Figures
SSA/Public Issuers

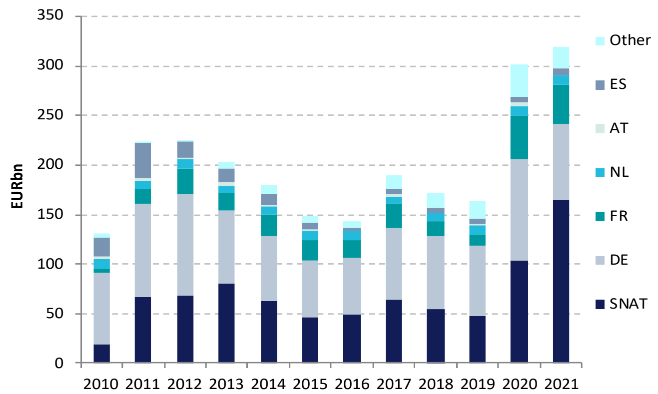
Outstanding volume (bmk)



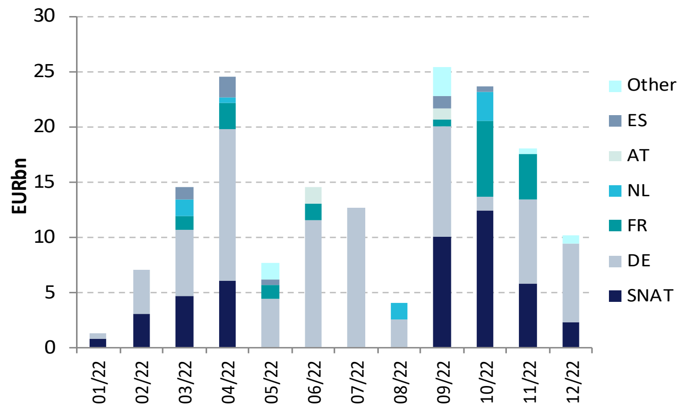
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	794,0	195	4,1	8,6
DE	736,6	570	1,3	6,9
FR	211,5	147	1,4	5,7
NL	74,3	69	1,1	6,7
ES	46,8	59	0,8	5,0
CA	30,7	21	1,5	5,5
BE	21,7	25	0,9	13,7
AT	21,2	23	0,9	4,9
FI	17,0	21	0,8	6,2
IT	15,0	19	0,8	5,5

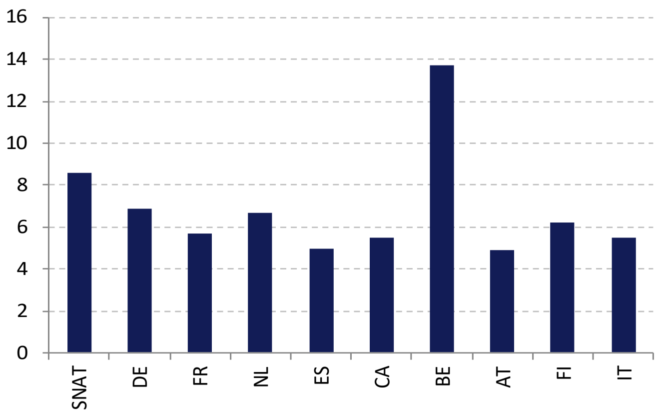
Issue volume by year (bmk)



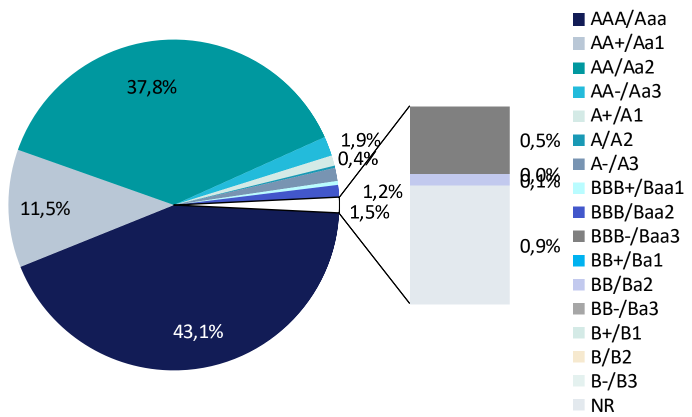
Maturities next 12 months (bmk)



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



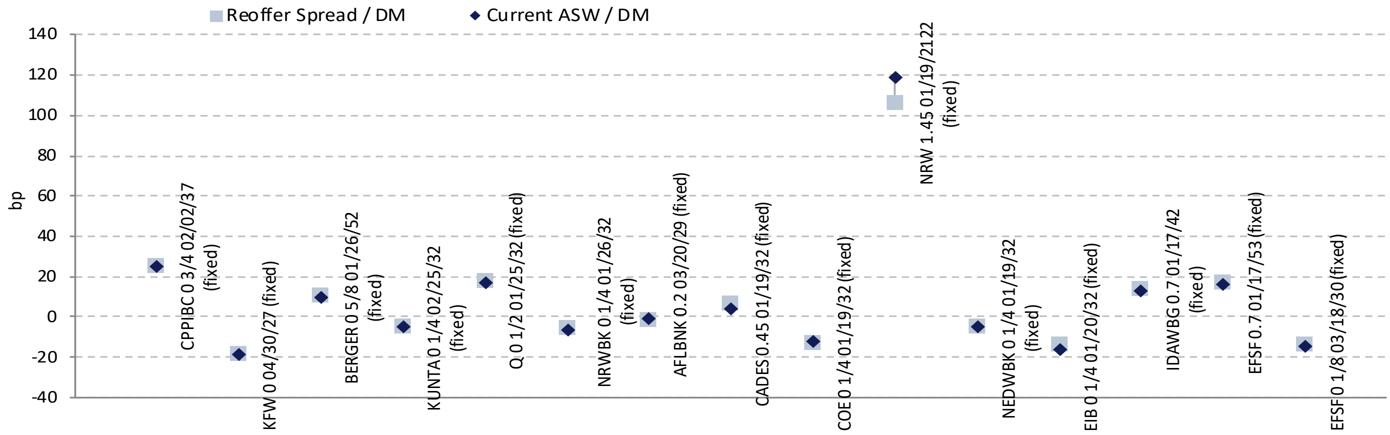
Rating distribution (vol. weighted)



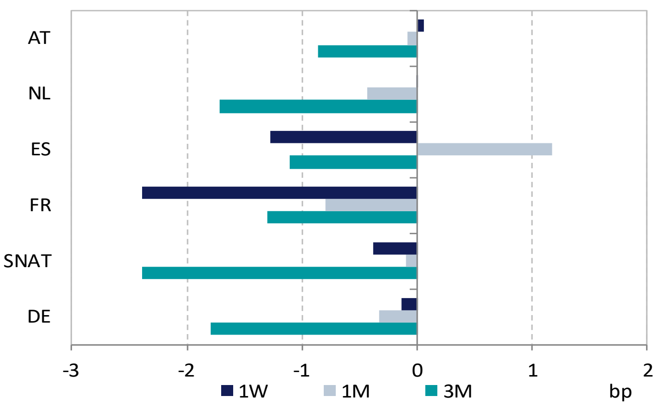
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

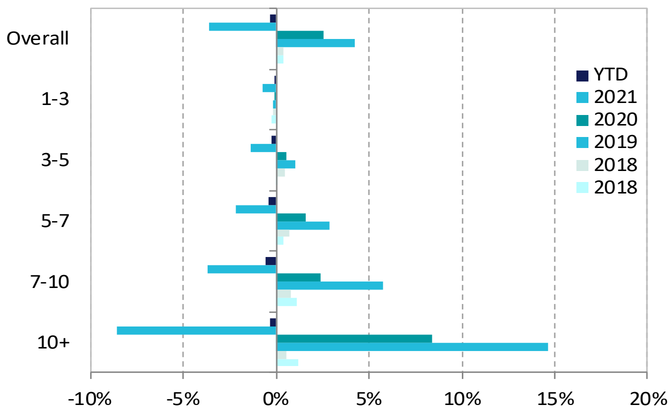
Spread development (last 15 issues)



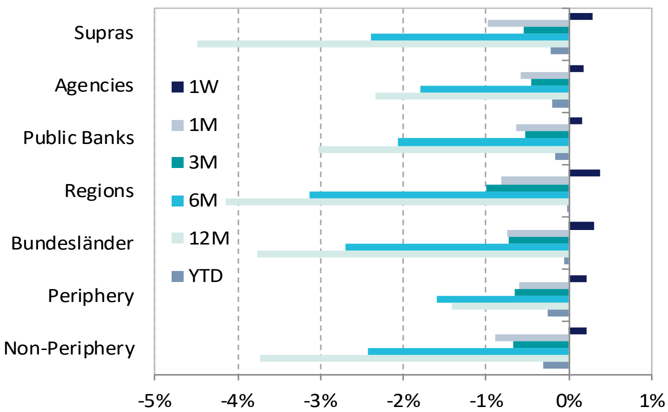
Spread development by country



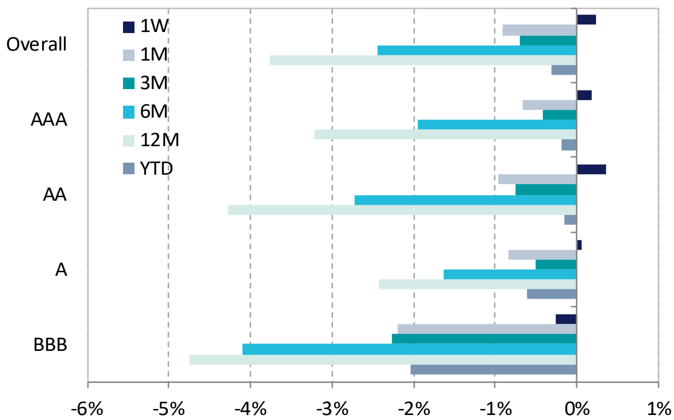
Performance (total return)



Performance (total return) by regions

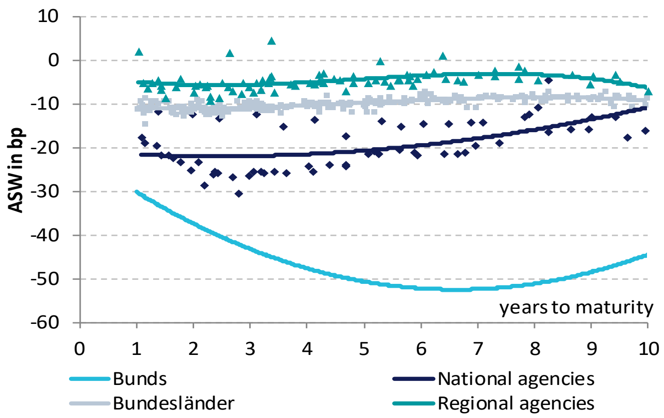


Performance (total return) by rating

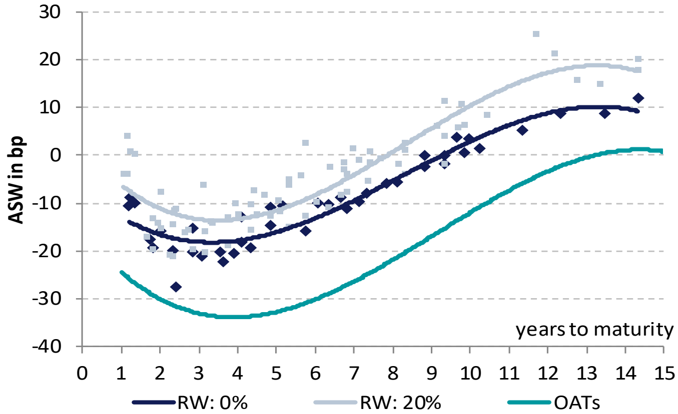


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

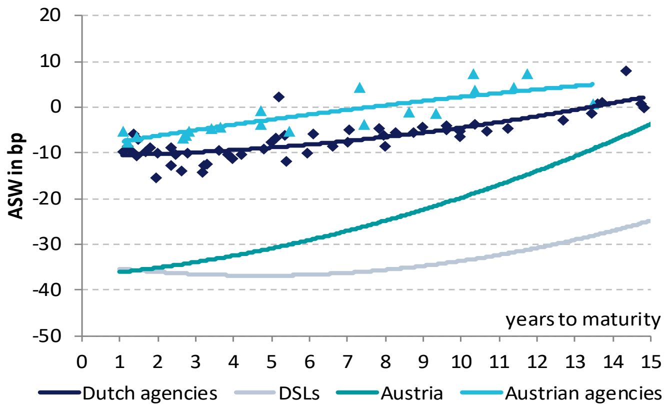
Germany (by segments)



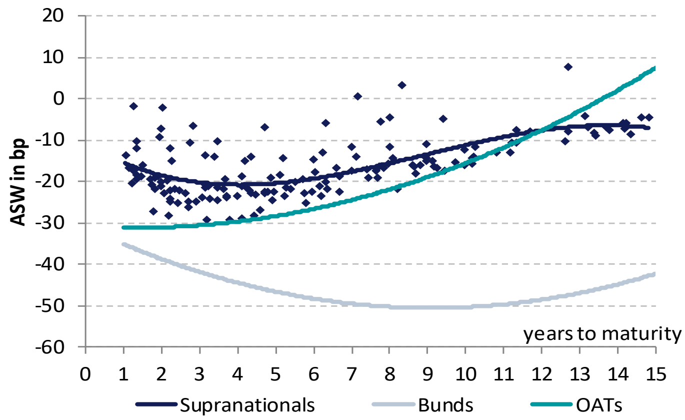
France (by risk weight)



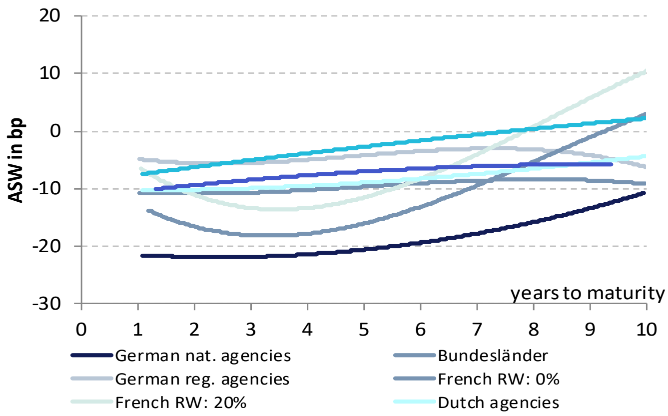
Netherlands & Austria



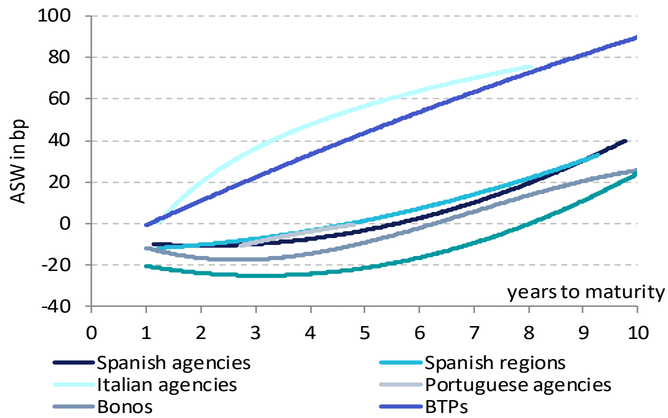
Supranationals



Core



Periphery



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

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Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
02/2022 ♦ 19 January	▪ Spotlight on the EUR benchmark segment: a look at the covered bond markets in Belgium and the Netherlands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody's covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record
40/2021 ♦ 15 December	▪ ECB preview: End of PEPP, booster for APP?! ▪ Our view of the covered bond market in 2022 ▪ SSA Outlook 2022: Public sector caught between ECB & COVID
39/2021 ♦ 08 December	▪ The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations ▪ The Moody's rating approach
38/2021 ♦ 01 December	▪ United Kingdom: Spotlight on the EUR benchmark segment ▪ Beyond Bundeslaender: Region Pays de la Loire (PDLL)
37/2021 ♦ 24 November	▪ Benchmark deals outside the euro: momentum has returned! ▪ Transparency regulations under Section 28 of the Pfandbriefgesetz (PfandBG - German Pfandbrief Act) Q3 2021 ▪ Beyond Bundeslaender: Auvergne-Rhône-Alpes Region (ARA)
36/2021 ♦ 17 November	▪ Primary market forecast 2022: time for a comeback? ▪ Development of the German property market ▪ Beyond Bundeslaender: Spotlight on Belgian regions
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!

NORD/LB: Markets Strategy & Floor Research

NORD/LB: Covered Bond Research

NORD/LB: SSA/Public Issuer Research

Bloomberg: RESP NRDR <GO>

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

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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

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

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Additional information
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None

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Breakdown of recommendations (12 months)

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Issuer / security	Date	Recommendation	Bond type	Cause