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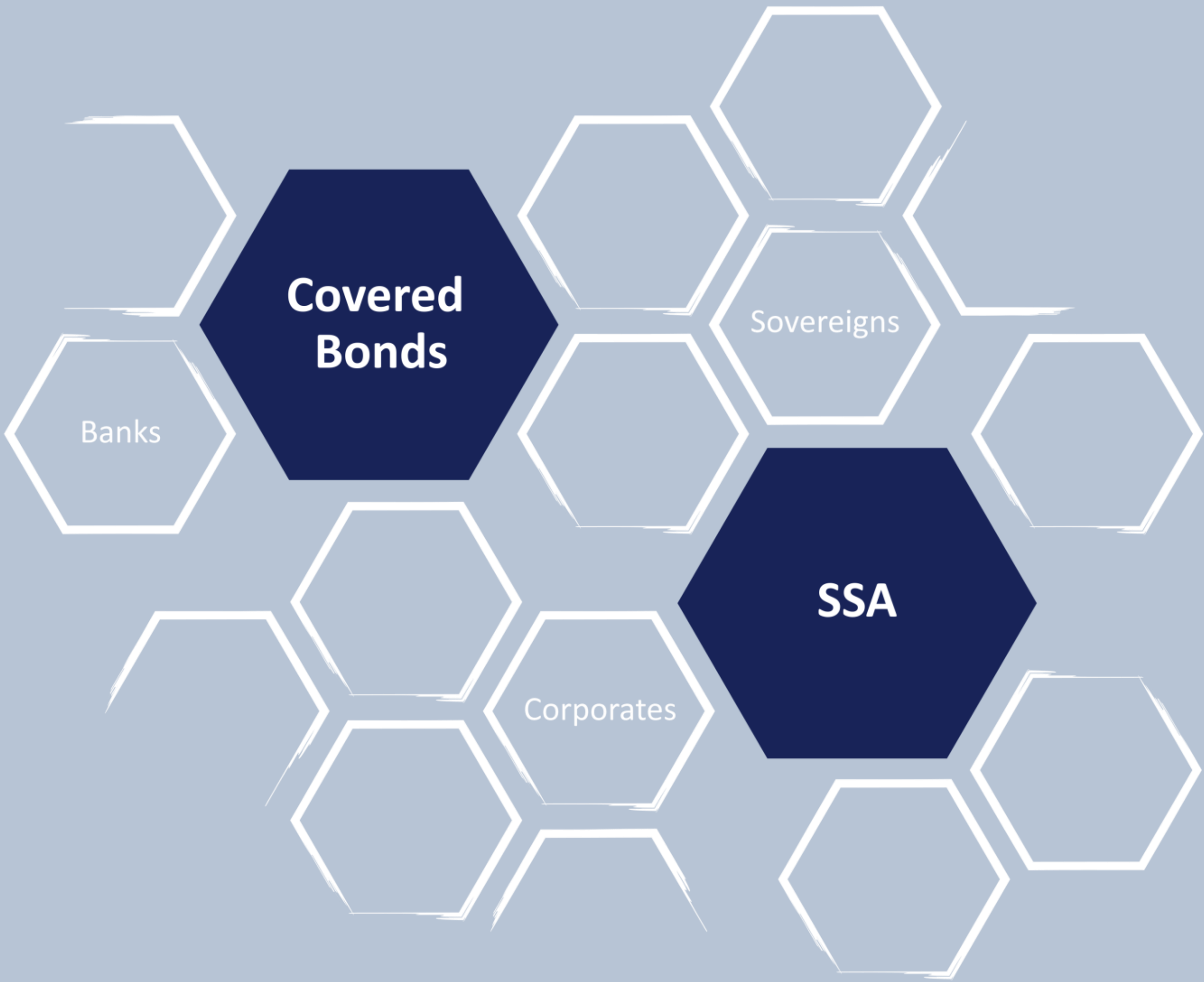

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

8 December 2021 ♦ 39/2021

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

Finanzgruppe

Agenda

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Market overview Covered Bonds

Author: Dr Frederik Kunze

Primary market: ING Bank sends another signal in 2021

For the past few weeks, we have been mentioning in our weekly publication that issuance activity for 2021 will now slowly start to tail off, albeit with the distinct possibility at the same time of the odd issuer making an appearance on the market before the end of the year. Now, another issuer from the Netherlands, namely ING Bank, has left its mark on the primary market by successfully placing a benchmark-size deal. An issuance volume of EUR 1.5bn was eventually determined for the soft bullet covered bond (term to maturity: 10y), which generated a final order book of EUR 2.4bn. Starting from the initial guidance of ms +5bp area, the deal tightened by four basis points over the course of the marketing phase to settle at ms +1bp. This issuer was last active on the market back in February 2019, when it placed a bond with a volume of EUR 2bn. The breakdown of the volume allocation for its current transaction saw 41% go to accounts based in the Benelux countries – followed by Germany and Austria (35%) and the Nordics (13%). In terms of investor type, 39% went to Central Bank/SSA, with Banks taking a share of 32%, followed by Funds at 20%. Even after this deal, we are sticking to our view that there could still be sporadic activity in the EUR benchmark segment before 2021 comes to a close.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
ING Bank NV	NL	01.12	XS2418730995	10.0y	1.50bn	ms +1bp	AAA / Aaa / AA	-

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

Moody's I: Covered Bond Outlook 2022

A few days ago, Moody's published its own outlook for the covered bond market in 2022. The rating agency expects increased issuance activity, which it believes will be triggered both by a high level of bonds falling due and a certain degree of retreat as far as monetary policy is concerned. At the same time, Moody's also mentions present and future negative influences arising from an unexpected deterioration of the pandemic situation and the economic environment – especially with regard to disruptions in supply chains, labour market shortages and inflation enduring longer than expected. In terms of a risk assessment, Moody's takes the view that the EU covered bond harmonisation project will generate a positive effect overall. However, the rating agency also points out the need for a certain degree of differentiation at jurisdiction level, while also continuing to assess asset quality as stable. For example, residential cover assets would be effectively shielded from falling house prices, while an improvement in the pandemic situation would help on the commercial side, despite the fact that setbacks in building valuations are to be expected here. Moody's expects stable ratings for 85% of issuers, with a negative outlook in place for just a single covered bond jurisdiction included in the rating agency's coverage (namely Turkey). The outlook for the Republic of Ireland is positive at present. In relation to the issuance trends in 2022, Moody's also addresses developments in the ESG segment in addition to the less important topics of retained issues and the high level of maturities that will need to be refinanced. Here, the ratings experts also address limiting factors and, in this context, not only mention the availability of suitable cover assets, but also the data requirements in the context of sustainable covered bond issuances.

Moody's II: Presentation of covered bond rating methodology

Over recent months, we have presented the rating approaches of both Fitch (cf. edition published on 15 September) and Scope (cf. edition published on 27 October). In today's edition, we will be taking a look at the rating approach of Moody's (cf. dedicated article on this subject included in this edition of our weekly publication), which ties in nicely with the release of the Moody's Outlook 2022. As is the case with the other rating agencies, Moody's likewise makes continual adjustments to the parameterisation of its approach in order to take sufficient account of market developments. In this context, Moody's recently communicated that it has made adjustments to the refinancing margins and timely payment indicators for APAC covered bonds. In terms of rationale for this move, Moody's makes reference in the corresponding press release to the resilience of economies and states, which was demonstrated over the course of the COVID-19 crisis. Additionally, the growth of some national covered bond markets as well as the regulatory measures – particularly in South Korea and Singapore – would have spoken in favour of the adjustment.

Estonia: Coop Pank applies for covered bond licence

As part of our weekly publication, we regularly focus on the harmonisation of the European covered bond market in addition to the developments reported from new and emerging jurisdictions. We would certainly include the Baltic states of Estonia, Latvia and Lithuania among the growth candidates here. However, we have also identified a certain dynamic in connection with covered bond legislation. In this context, the adjustments made to Estonian covered bond legislation, which is based on the European covered bond directive, were adopted in mid-November and have now been published in the country's journal of laws. Looking at the region's growth, the most recent announcement that Coop Pank has applied for a covered bond licence is also to be welcomed. Even if this step is unlikely to have any immediate implications for the EUR benchmark segment, the addition of new issuers from the Baltic region is a pleasing development. Including the EUR benchmark issuer Luminor and LHV Pank, which is active in the EUR sub-benchmark segment, the number of issuers from Estonia has now risen to three. Signs of growth from the Baltic region could even boost issuance activity on a more general basis, in particular because this trio of jurisdictions are keen to increase their own issuing potential through the creation of a pan-Baltic covered bond market.

Risk Assessment 2021: EBA recommends securing access to both covered bond market and investors

A few days ago, the European Banking Authority (EBA) presented its most recent Risk Assessment. In its December 2021 report, the EBA referenced improved asset quality, comfortable liquidity positions as well as the obvious progress made in connection with ESG risks on the part of commercial banks, among other aspects. The EBA also commented that capital ratios were on an upwards trajectory, a trend which can be attributed to retained profits, among other factors. Looking back, the EBA also addresses the extent to which alternative refinancing options (unsecured bonds, deposits and TLTRO III) have had a negative impact on the publicly issued covered bond volume. However, in our view, more important for the future would actually be the indication that covered bonds will again be given greater weight in banks' funding plans. In the EBA report, the observed trend of declining covered bond issuance activity is also covered in the concluding "Political Implications and Measures" section. Accordingly, the EBA points out that banks should move to secure access to the covered bond market and investors, reasoning that this approach would offer a reliable funding source in times of elevated market volatility.

Market overview SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

Beyond Bundeslaender: French regions in focus
In the past two issues of our weekly publication, we have devoted our attention to two French regions. As part of our systematic analysis of the Auvergne-Rhône-Alpes region (ARA) and the Pays de la Loire region (PDLL), we focused not only on their economic structure and political landscape but also on their capital market presence. We also looked at the impact of the Corona pandemic on the two regions.

Selected weekly publications from the last few months
In 2021, we launched the series "Beyond Bundeslaender" to shed light on different regions and held an online conference in a "spotlight format".

- Belgian regions
- Spanish regions
- Portuguese regions
- Greater Paris Area

Other publications from our coverage
Here, we are proud of our annual publication of the Issuer Guide series, which is affectionately referred to as the "Bible" by some institutional investors:

- German Laender 2021
- Covered Bonds 2021

Primary market
Due to absences, this section remains uncommented. Our weekly publication will return in the usual form again on 15 December and then again in the New Year.

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

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

Covered Bonds
The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations

Author: Dr Frederik Kunze

The interaction between the pandemic situation and ECB monetary policy: an issue that also impacts the covered bond market

We have already discussed the significance of (future) monetary policy framework conditions for the covered bond market in the context of our supply forecast for the EUR benchmark segment (see NORD/LB Covered Bond & SSA View dated 17 November) and referred to them accordingly in drafting our forecast for 2022. The new virus variant that has recently come to the fore has provided a striking demonstration of the unforeseen circumstances under which the course pursued by central banks around the world – in particular, the Fed, the Bank of England and the ECB – must be continuously adjusted. The debate about the adequate assessment of the current inflation situation is now accompanied by renewed uncertainties regarding the future course of the (emergency) pandemic situation. As a result, adjustments to the course pursued by central banks – by the ECB, in particular – could also entail significant new impetus for the covered bond market. We do not view a dramatic intensification of the pandemic emergency as the baseline scenario for our supply forecast for the covered bond market. But even without this escalation, the future course of the ECB – and by that we also mean specifically the decisions taken beyond the meeting on 16 December – will point the way for the covered bond segment. In the following, we intend to look briefly at the influence of the ECB and the Eurosystem on supply and demand and, in doing so, point to the significance of the next course-setting decisions taken by the ECB's Governing Council in addition to outlining upcoming events of relevance. After all, the tenth and therefore the last (for the moment) TLTRO III tender is pending this month.

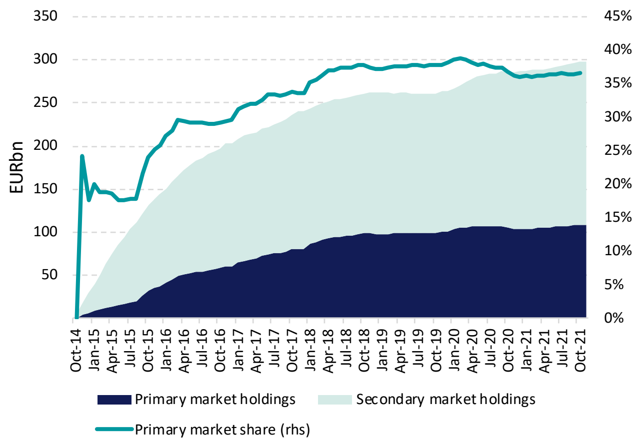
Covered bond market not only highjacked by CBPP3

However, before we dare to look into the future, it seems sensible in our opinion to look once more at the current situation on the covered bond market created by the Eurosystem – and by that we do not mean solely the EUR benchmark segment. With regard to demand, the CBPP3, which comes under the APP and has a current volume of almost EUR 300bn, is the dominant factor at present, whereas the covered bond purchases in the context of the PEPP can be more or less ignored. The CBPP3 definitely focuses on the EUR benchmark segment, although, given the investment criteria set, it could also, for example, purchase EMU covered bonds denominated in euro where the issue is smaller or is not publicly placed. Nevertheless, a focus on the CBPP3 would be too limited if we are looking at the dominance of the Eurosystem on the covered bond market. We have, for example, already drawn attention on several occasions to the substantial volumes of retained issues that are used as eligible collateral and are even purchased via the CBPP3 in part. Yet the acceptance of covered bonds in the context of the ECB collateral framework is not restricted by any means to retained issues. The covered bonds eligible for this purpose total EUR 1,644bn (Q3/2021) and also include bonds in other currencies.

Declining share of covered bonds outside the Eurosystem

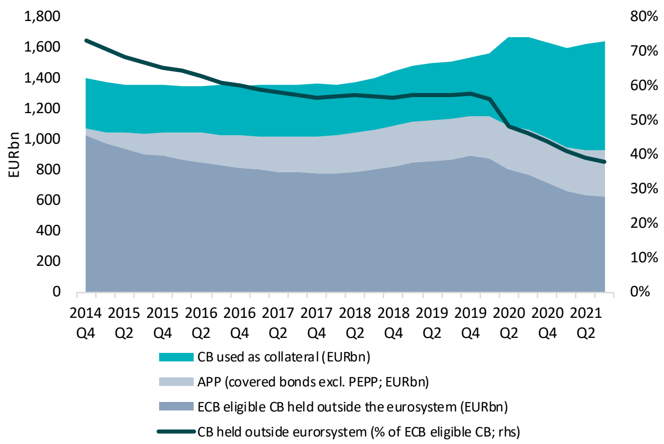
The covered bonds eligible for acceptance as ECB collateral are a perfectly suitable size to describe a universe that can be used as the starting point for reviewing the hypothesis that the dominance of the Eurosystem has increased still further in the wake of the coronavirus crisis. If, in particular, the volumes of the APP (CBPP2 and CBBP3: around EUR 300bn) as well as the covered bonds used as collateral at the ECB (use of collateral; EUR 717bn) are compared with this universe, this currently (Q3 2021) produces a far smaller share, at 38%, of the covered bonds "held outside the Eurosystem" than at the end of 2019 (58%). In our opinion, however, the chart prepared on the basis of a Moody's presentation (below right) not only shows a demand effect. Rather, we see the increase in the area of "CB used as collateral" as a direct consequence of an increase in the acceptance of collateral caused by the interaction of retained covered bonds and TLTRO III tenders. As a result, the Eurosystem has a distorting influence on the covered bond market from both perspectives (i.e. CBPP3 and ECB Collateral Framework).

ECB: CBPP3 volume



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

ECB shares on the covered bond market

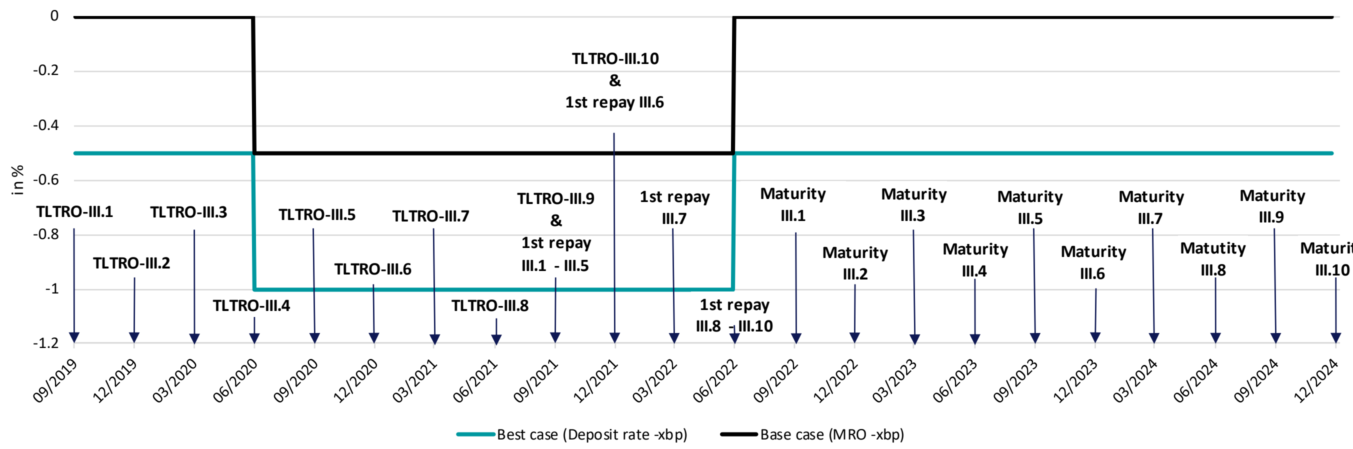


Source: ECB, NORD/LB Markets Strategy & Floor Research; Presentation based on Moody's

The final TLTRO tender (for now): allocation will be reported on 16 December

One distorting influence could gradually abate with the final (for the time being) TLTRO tender, allocation of which will be announced on 16 December (see ECB). Nevertheless, although it seems highly unlikely that a decision on the continuation of the targeted longer-term refinancing operations will be taken at the December meeting (the press conference will also be held on 16 December), we do not by any means believe this instrument is dead and buried – regardless of the outstanding transactions that in some cases will run until well into 2024. To date, commercial banks have raised funds amounting to EUR 2,287.3bn in total with the Eurosystem, of which they have so far voluntarily repaid a rather small share of 3.5% or EUR 81bn. The dates for allocations, voluntary repayments and maturities of tenders 1 to 10 are shown in the graphic below. It is also apparent that the potential best rate of -100bp (or deposit rate less 50bp) will only be granted until June 2022.

ECB: TLTRO III tender – an overview



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

What if: TLTRO IV

With regard to any continuation of the TLTRO tenders (such as in the form of a TLTRO IV), we would, in principle, assume that the relevant parameters or conditions depend on a number of factors. First and foremost, the course of the pandemic and inflation should be paramount; followed by or in line with financing conditions in the single currency area. We certainly see possible indications for a further series of TLTROs at present, although we consider the offer of extremely attractive conditions yet again from the perspective of the commercial banks as unjustified. In this respect, the distorting effect on issuers' issuance activities should be less marked than previously. Accordingly, the refinancing measures of the Eurosystem are likely to have more of a smoothing effect and have a significance for funding comparable with 2020 or 2021 for far fewer banks.

What if: more covered bonds are purchased under an adjusted APP

In a scenario where purchase volumes under the CBPP3 were increased as a result of the APP being increased (if the PEPP were to be terminated or paused, for example), this would theoretically add a key driver in supporting covered bond spreads. In actual fact, the spreads for EMU covered bonds are already at a very low level, meaning that marked narrowing is rather unlikely. As far as the increase in the CBPP3 is concerned, we would also assume that this would be gradual and do not see the ECB focusing on the covered bond market in any way. In this respect, it is also likely under this scenario that spreads can be expected to widen modestly up to the middle of 2022.

Conclusion

Although the Eurosystem does not focus directly on the covered bond market, the monetary policy parameters are of particular relevance for the EUR benchmark segment. Here, the policy-setting decisions are not likely to be made until 2022. We expect fewer distorting effects although the grip exerted on the market by the Eurosystem will not loosen immediately.

Covered Bonds
The Moody's rating approach

Author: Dr Frederik Kunze

Rating approach comprises multi-stage process

The Moody's rating approach comprises a multi-stage process which takes account of the regulatory preferential treatment of covered bonds in the context of the Bank Recovery and Resolution Directive (BRRD). This refers to the Counterparty Risk Assessment (CR Assessment), which takes into consideration the fact that banks in jurisdictions with resolution regimes (e.g. BRRD) maintain operational functions, even in the event of a default, and are able to meet further payment obligations under specific instruments, even though deposits and senior unsecured liabilities are experiencing losses (key word here: bail-in). The CR Assessment therefore describes the default probability of instruments for which a bail-in is less likely, such as covered bonds or certain derivatives. The CR Assessment can consequently end up higher than the SUR or deposit rating.

CR Assessment usually higher than senior unsecured or deposit rating

The CR Assessment level depends on the extent to which bail-in-able debt instruments are available and provide protection to other instruments against losses. The existence and structure of the applicable insolvency or resolution directives therefore play a key role. Potential support from the state or regulator is also taken into consideration.

Additional notch uplift for the EU, Norway and Switzerland

As covered bonds are fundamentally preferred instruments whose probability of default in the event of winding-up is lower than that of unsecured instruments, Moody's now typically uses the CR Assessment as the anchor point for determining the covered bond rating. For EU member states and Norway, the anchor point for legally based covered bonds can also be an additional notch higher than the CR Assessment, since in the case of an emergency the agency considers the intervention of state or the regulator to maintain the covered bond market to be likely given its long history and other characteristics. In the case of Switzerland, the anchor point can also be more than one notch higher than the CRA.

Assessing the creditworthiness of the issuer and value of the cover pool

Moody's therefore looks at both the creditworthiness of the issuer in the context of the covered bond anchor point as well as the value of the cover pool following the institution's default. To do this, the issuer's probability of default is derived from the CR Assessment and linked with the losses expected from the cover pool in the event of the issuer's insolvency. Here Moody's uses the payment streams from the cover assets (taking account of credit and market risks) available to repay the outstanding covered bonds. The future payment flows are determined for a variety of scenarios and the loss to the investor calculated for each scenario. The losses in the individual scenarios are weighted according to probability and added together to give the expected loss.

TPI as limiting factor

However, the rating corresponding with this expected loss can be limited by what is known as the Timely Payment Indicator (TPI) framework. The TPI shows the expected probability of the timely servicing of covered bondholders in the event of non-payment by the issuer. The TPI has six levels ranging from “very improbable” to “very high”. The more positive the TPI, the greater the possible gap between the covered bond anchor point and covered bond rating. The TPI of a covered bond programme is affected by a series of factors. These include qualitative aspects of the cover assets and the covered bond programme, as well as the legal basis and contractual structure of the programme. Additional aspects considered include the quality of regulation in a country, the state’s creditworthiness as well as the maturity and depth of a market. Together with the covered bond anchor point, the TPI determines the maximum rating achievable for the respective covered bond.

Decoupling from TPI possible

In its methodology, Moody’s also outlines the circumstances under which the covered bond rating can be decoupled from the TPI approach and therefore no longer be constrained by this indicator. The rating agency cites two reasons in particular for applying the TPI Framework; on the one hand, the refinancing risk that can result from a hard or soft bullet structure, and on the other, the risks that can arise for the cover pool from the functions of the issuer. One way to limit the refinancing risks would be to use pass-through or conditional pass-through structures.

Moody’s identifies various types of risk

When calculating the expected losses in the cover pool following issuer insolvency, Moody’s identifies various types of risk. Here the rating agency uses the collateral score as a yardstick for the credit quality in the cover pool. This indicator shows the loss as a percentage that would be expected following issuer insolvency as a result of credit defaults in the cover pool. The lower the collateral score, the higher the credit quality of the cover pool. Moody’s assesses the credit risks using separate models for the individual collateral types such as own home finance or public sector finance. Depending on the issuer rating and covered bond rating, haircuts of up to 50% are applied to the credit risks, thereby producing the collateral risk. One of the main reasons for applying this haircut is the support expected for the programme from the issuer.

Refinancing risk from differences in maturity profile

According to Moody's, a refinancing risk arises when there are differences in the maturity profiles of cover assets and covered bonds. To ensure creditors are paid in a timely manner, in some circumstances additional liquidity must be generated alongside the payment flows from the cover assets. This liquidity can come from the disposal of assets or interim financing. Depending on the refinancing margins involved, losses can arise that adversely affect the cover pool. The refinancing risk is modelled on the basis of three factors: (i) the portion of cover assets for which interim financing is required as a result of mismatched maturities; (ii) the average term of the refinancing requirement and (iii) the margin assumed. Other risks to be considered are interest rate and currency risks which result from mismatches between the assets in the cover pool and the outstanding covered bonds.

Interest rate and currency risks produce market risk

To determine the interest rate and currency risks in the wake of issuer insolvency, Moody's uses standardised assumptions on the volatility of the interest rates and exchange rates. The refinancing risk along with the interest rate and currency risks together produce the market risk. Adding the market risks and the collateral risk together produces the cover pool losses as the sum of all risk components. In Moody's approach, the cover pool losses together with the overcollateralisation level (OC) and issuer's probability of default (probability of anchor event) give the expected loss. The expected loss ultimately determines the covered bond rating. For existing ratings, the lowest OC at which the respective target rating is still achieved is calculated for the respective covered bonds as part of the monitoring process. The final outcome of the rating analysis is the lower of the results produced by the expected loss analysis and TPI analysis.

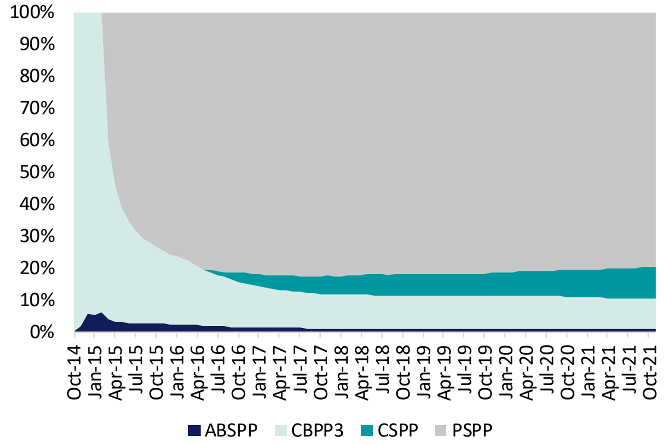
NORD/LB

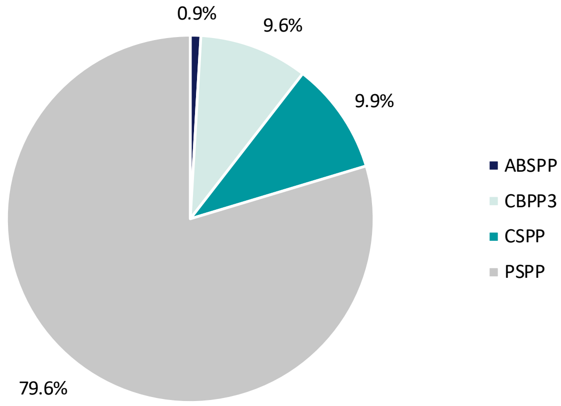
ECB tracker

Asset Purchase Programme (APP)

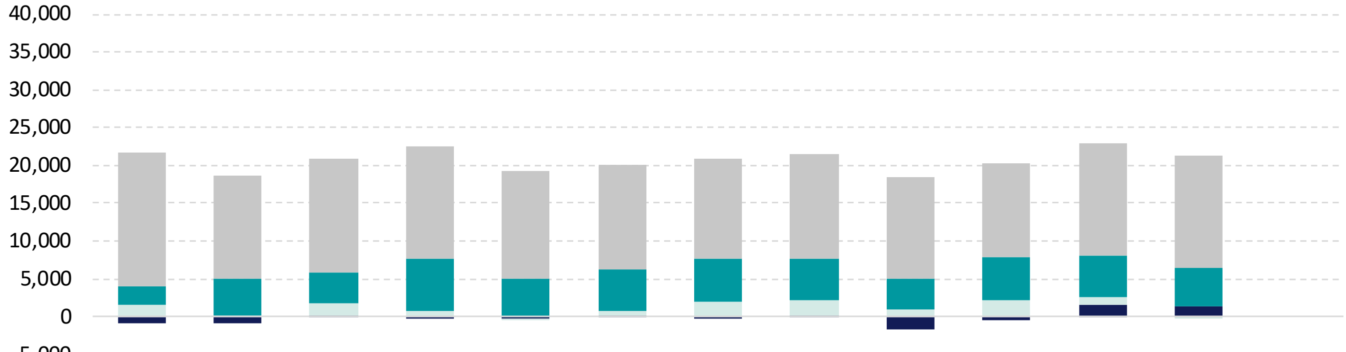
	ABSPP	CBPP3	CSPP	PSPP	APP
Oct-21	27,502	297,598	301,885	2,464,316	3,091,301
Nov-21	28,786	297,586	307,026	2,479,090	3,112,488
Δ	+1,284	-12	+5,142	+14,774	+21,188

Portfolio structure





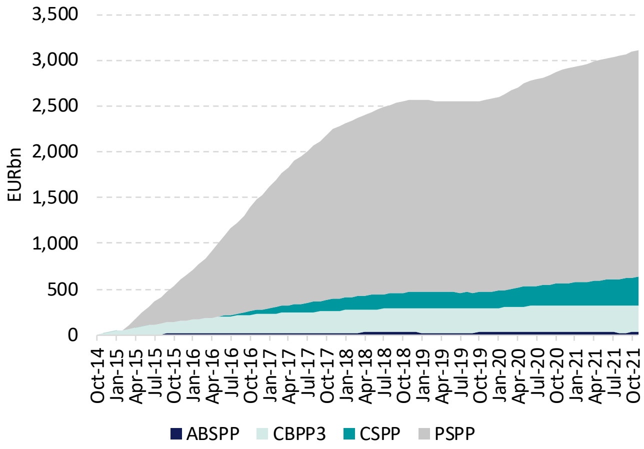
Monthly net purchases (in EURm)



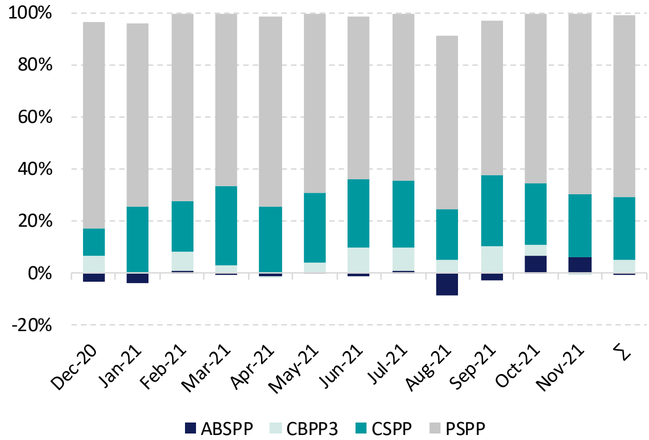
	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	∑
APP	20,929	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,188	244,160
PSPP	17,822	13,655	15,129	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,774	172,781
CSPP	2,378	4,924	4,064	6,929	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	59,957
CBPP3	1,529	74	1,539	684	-5	686	2,037	2,011	999	2,184	1,008	-12	12,734
ABSPP	-800	-807	183	-7	-278	88	-319	141	-1,749	-538	1,490	1,284	-1,312

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

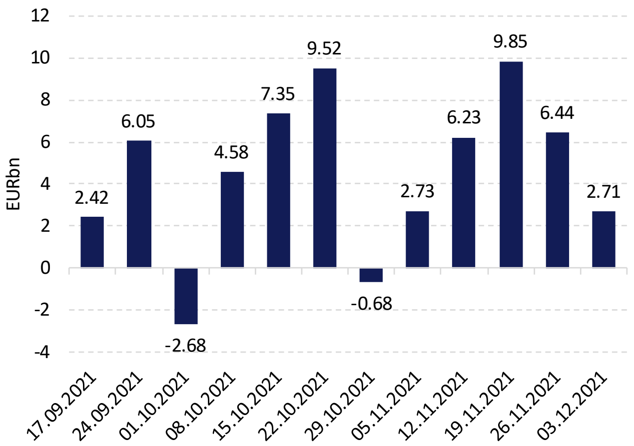
Portfolio development



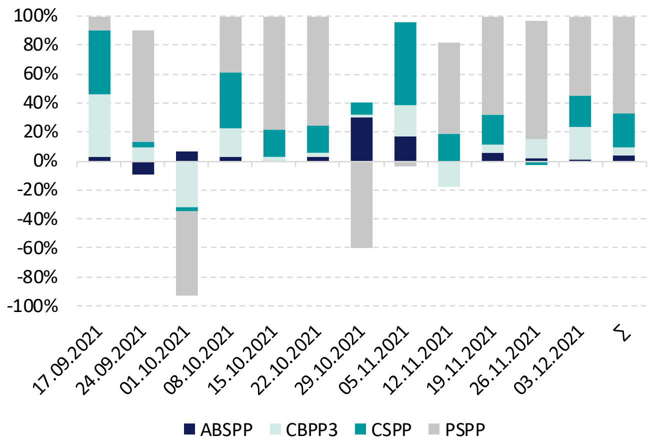
Distribution of monthly purchases



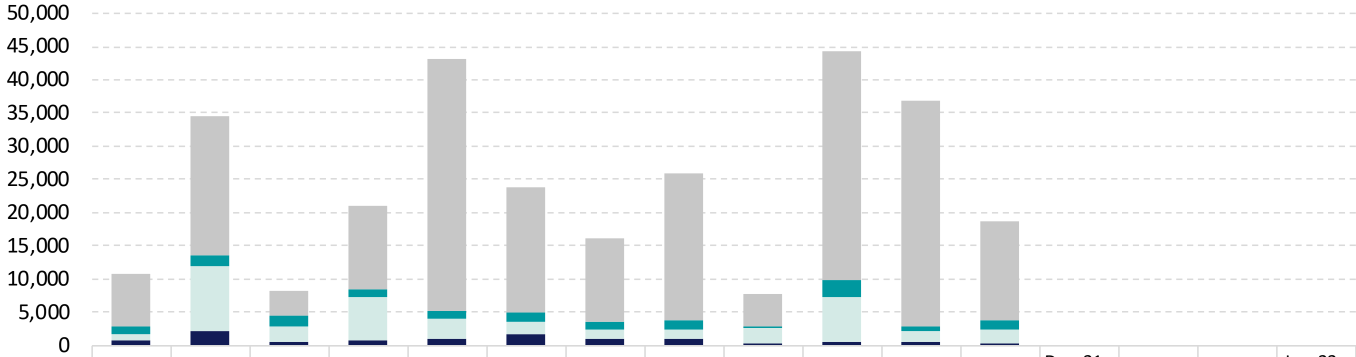
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

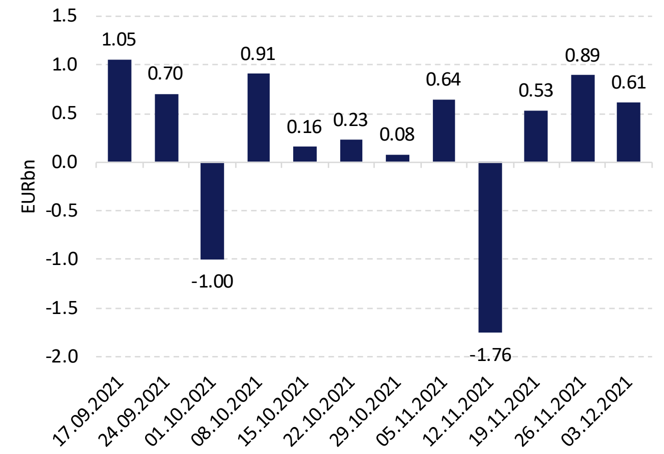


	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-21 - Nov-22	2020	2021	Jan-22 - Nov-22
APP	10,665	34,550	8,171	21,026	43,162	23,879	16,202	25,844	7,731	44,354	36,770	18,751	291,105	262,253	246,877	280,440
PSPP	7,811	20,906	3,625	12,603	38,018	18,999	12,714	22,158	4,841	34,554	34,003	14,945	225,177	201,482	188,494	217,366
CSPP	1,208	1,768	1,590	1,220	1,125	1,341	1,017	1,198	280	2,426	588	1,332	15,093	18,267	17,056	13,885
CBPP3	937	9,800	2,524	6,419	3,018	1,866	1,560	1,613	2,227	6,866	1,611	2,150	40,591	33,236	30,143	39,654
ABSPP	709	2,076	432	784	1,001	1,673	911	875	383	508	568	324	10,244	9,268	11,184	9,535

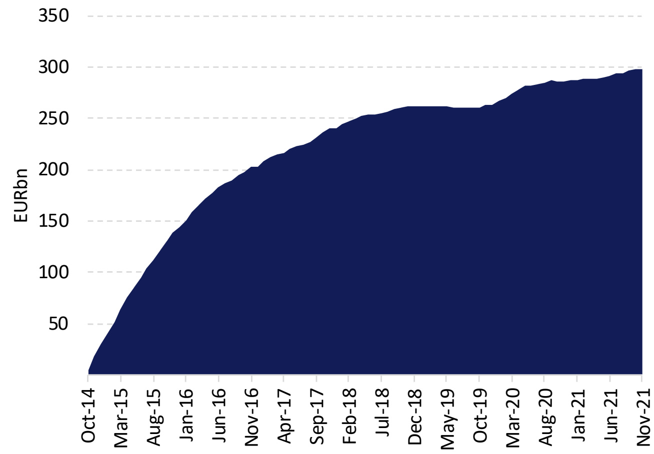
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

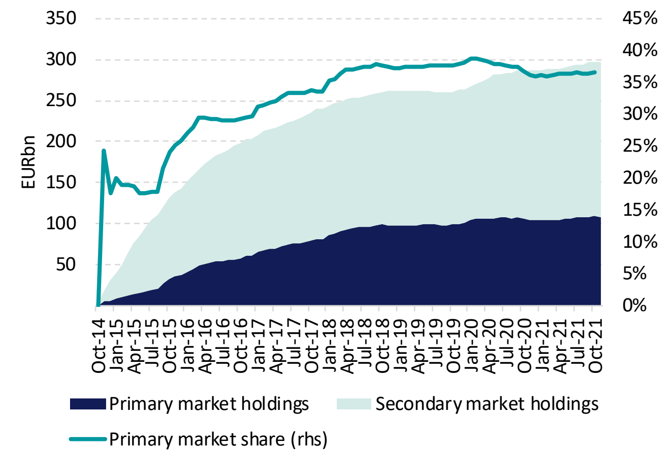
Weekly purchases



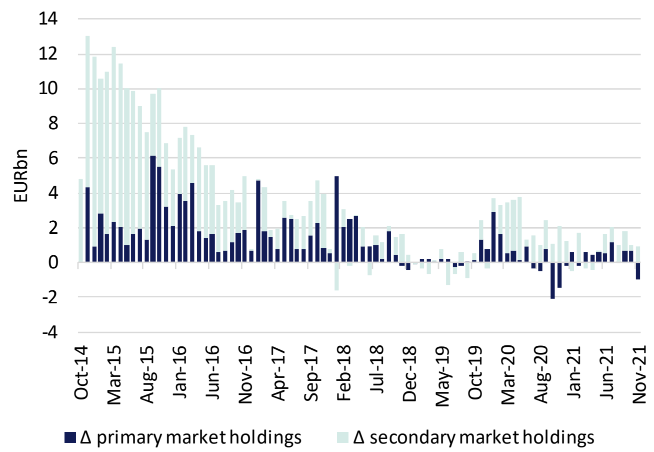
Development of CBPP3 volume



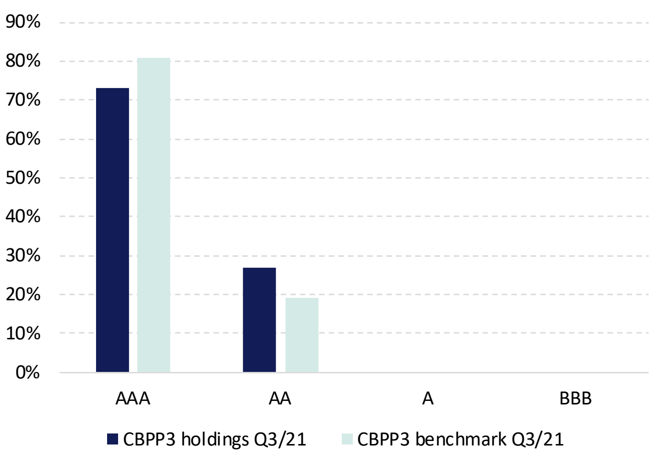
Primary and secondary market holdings



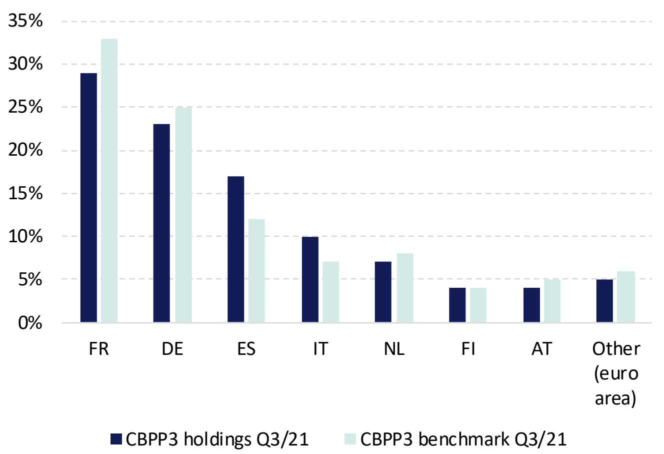
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



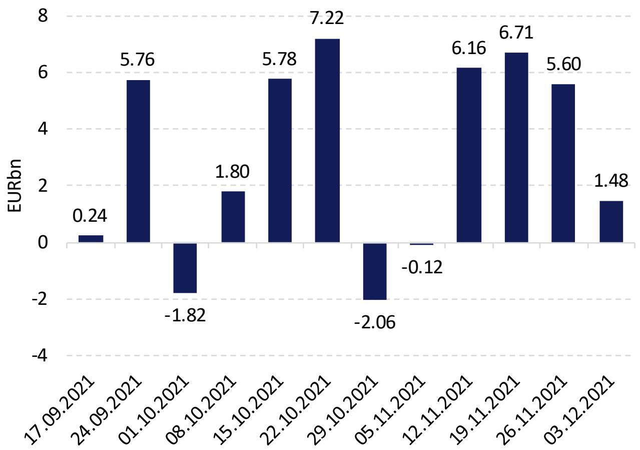
Distribution of CBPP3 by country of risk



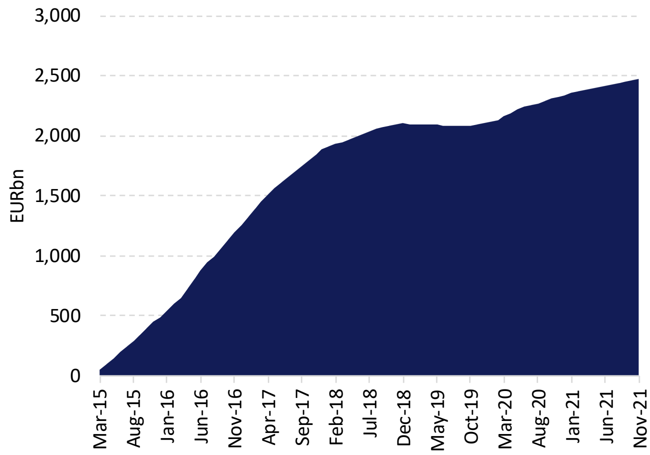
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



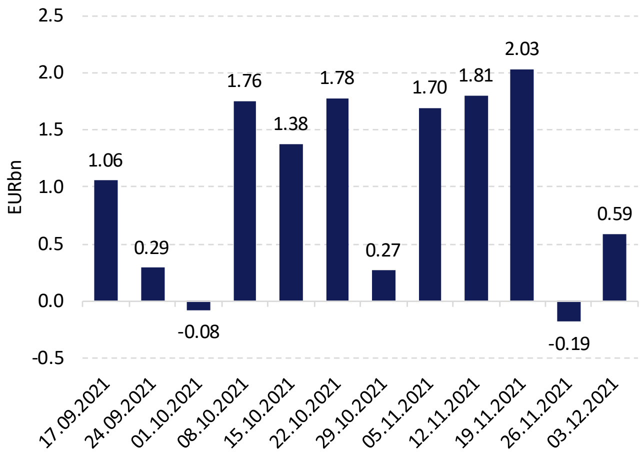
Overall distribution of PSPP buying at month-end

Jurisdiction	Adjusted distribution key[1]	Purchases (EURm)	Expected purchases (EURm)[2]	Difference (EURm)	Avg. time to maturity[3] (in years)	Market average[3] (in years)[3]	Difference (in years)
AT	2.7%	71,973	70,715	1,258	7.5	7.6	-0.1
BE	3.4%	90,539	88,022	2,517	8.0	10.2	-2.2
CY	0.2%	4,093	5,199	-1,106	9.9	8.8	1.1
DE	24.3%	632,164	636,901	-4,737	6.6	7.6	-1.0
EE	0.3%	408	6,806	-6,398	9.2	7.5	1.7
ES	11.0%	303,516	288,102	15,414	8.0	8.4	-0.4
FI	1.7%	40,616	44,379	-3,763	6.9	7.7	-0.8
FR	18.8%	512,340	493,457	18,883	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	40,771	40,913	-142	8.5	10.1	-1.6
IT	15.7%	429,794	410,447	19,347	7.1	7.9	-0.8
LT	0.5%	5,422	13,983	-8,561	10.2	10.6	-0.4
LU	0.3%	3,815	7,959	-4,144	5.6	7.2	-1.7
LV	0.4%	3,281	9,414	-6,133	11.3	10.4	0.9
MT	0.1%	1,311	2,534	-1,223	9.5	9.2	0.3
NL	5.4%	125,899	141,590	-15,691	7.7	9.0	-1.4
PT	2.2%	50,457	56,547	-6,090	7.0	7.2	-0.2
SI	0.4%	10,233	11,633	-1,400	9.9	10.2	-0.3
SK	1.1%	16,912	27,669	-10,757	8.2	8.3	-0.1
SNAT	10.0%	274,533	261,808	12,725	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,618,077**	**2,618,077**	**0**	**7.3**	**8.2**	**-0.9**

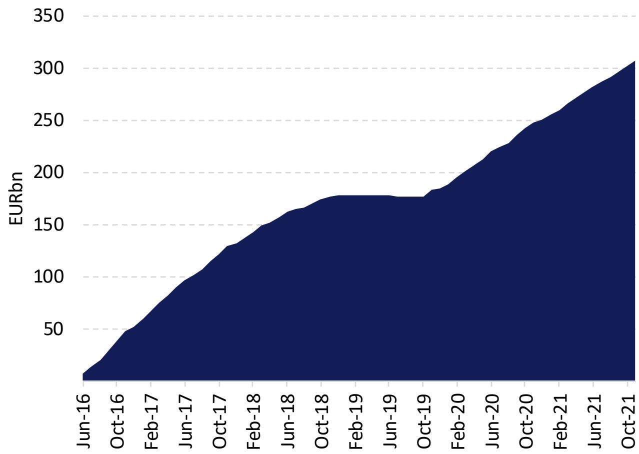
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

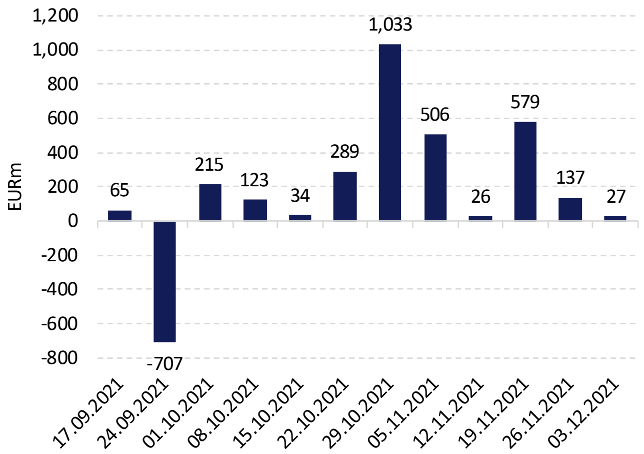


Development of CSPP volume

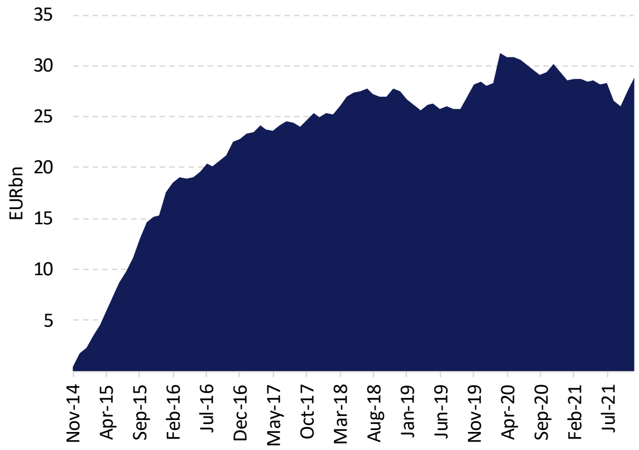


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



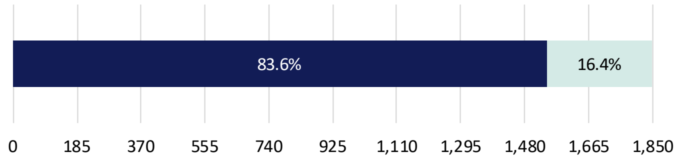
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Oct-21	1,480,146
Nov-21	1,548,231
Δ	+68,085

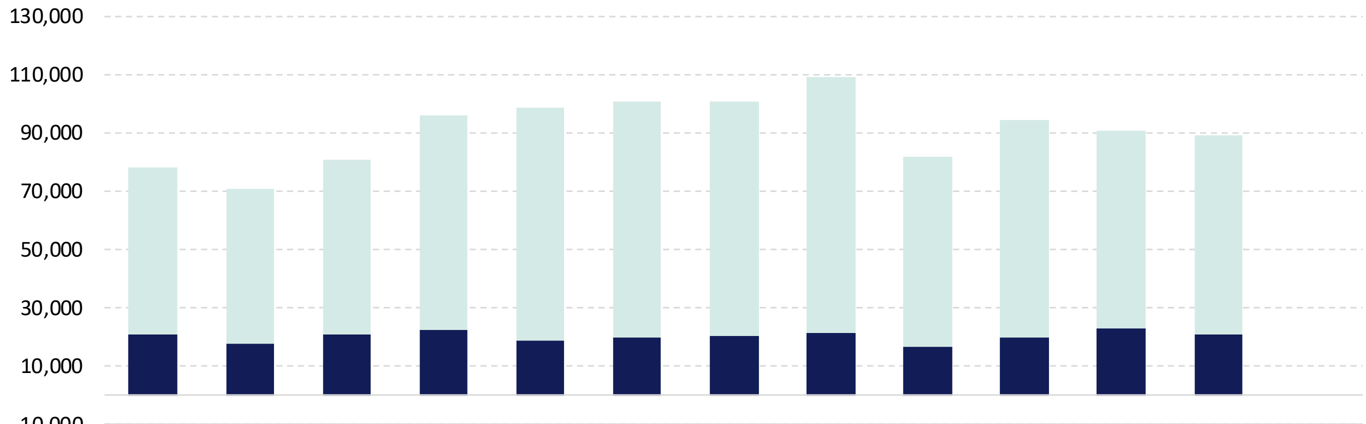
Volume already invested (in EURbn)



Estimated portfolio development

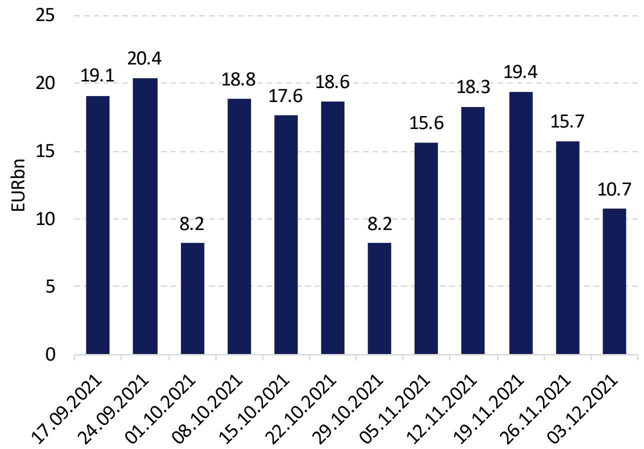
Assumed pace of purchases	Weekly net purchase volume	PEPP limit hit in ...
Average weekly net purchase volume so far	EUR 17.6bn	17 weeks (01.04.2022)

Monthly net purchases (in EURm)

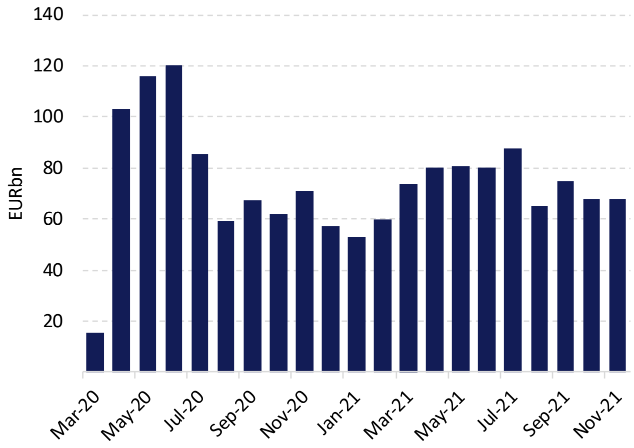


	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	∑
∑	78,092	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,273	1,092,38
PEPP	57,163	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,085	848,228
APP	20,929	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,188	244,160

Weekly purchases



Development of PEPP volume

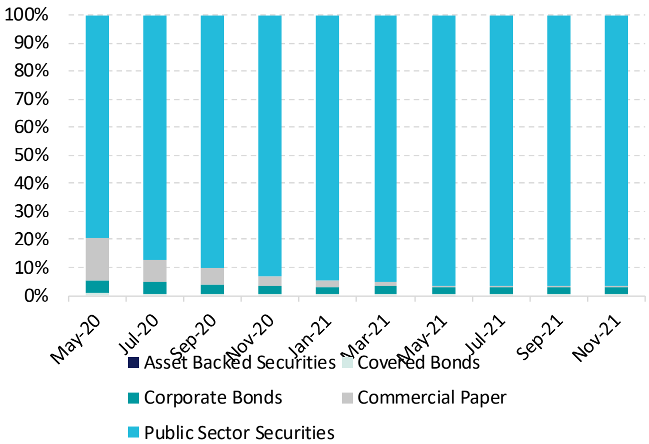


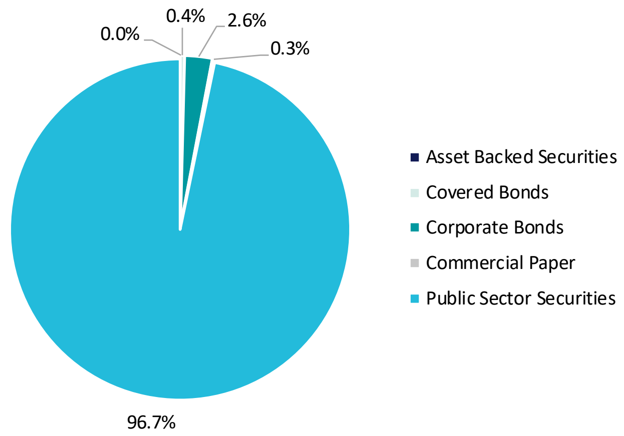
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

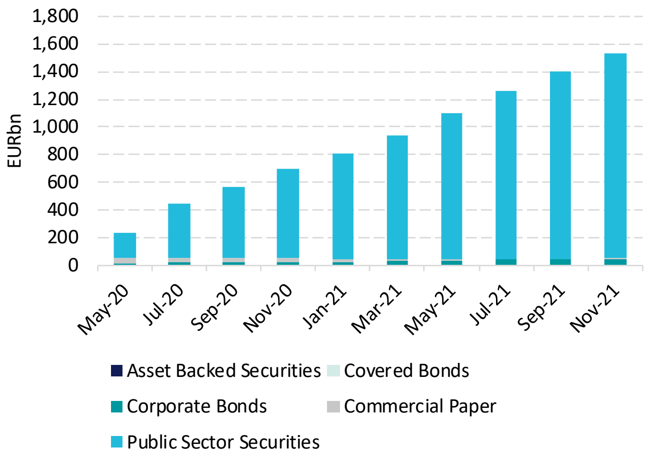
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Sep-21	0	6,079	37,139	3,314	1,353,076	1,399,609
Nov-21	0	6,079	39,871	4,032	1,485,567	1,535,549
Δ	0	0	+2,732	+717	+132,491	+135,940

Portfolio structure

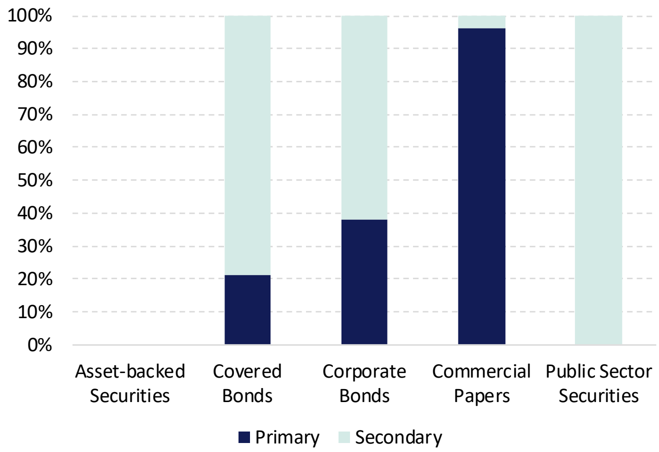




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

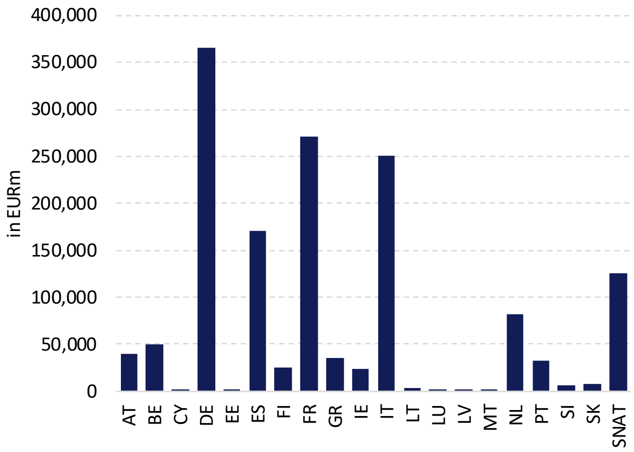
Sep-21	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,781	14,113	23,026	3,191	123
Share	0.0%	0.0%	21.4%	78.7%	38.0%	62.0%	96.3%	3.7%

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

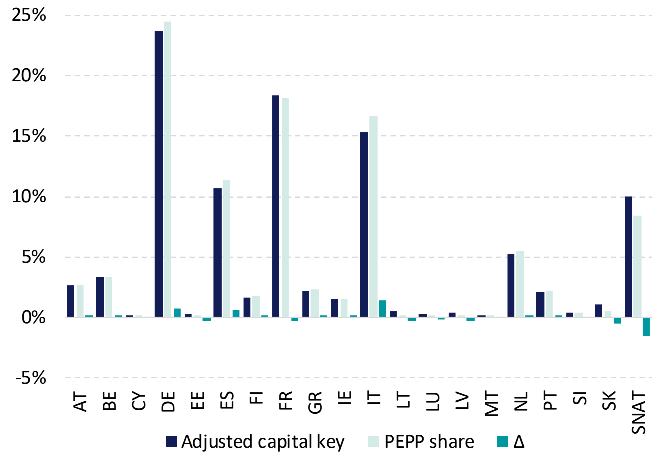
Breakdown of public sector securities under the PEPP

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



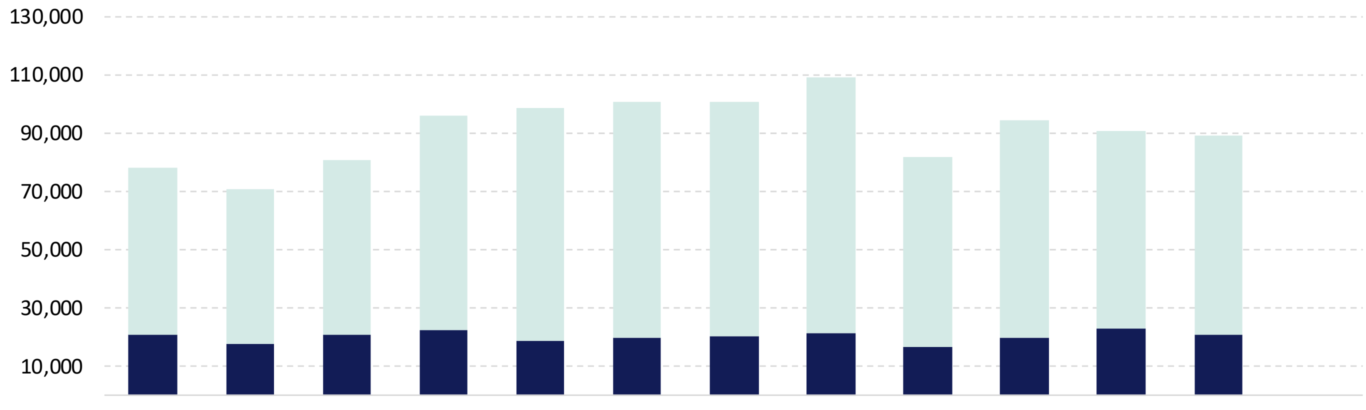
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

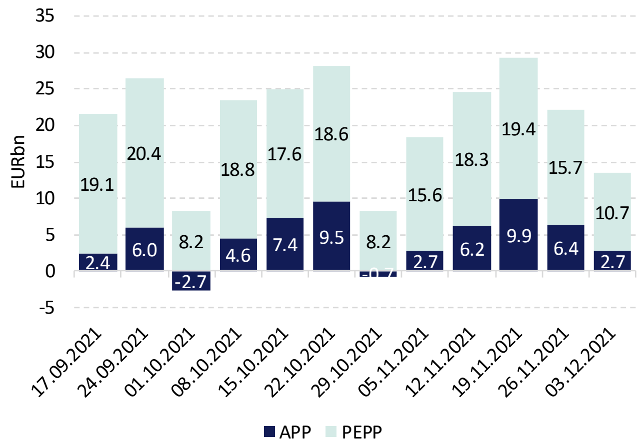
	APP	PEPP	APP & PEPP
Oct-21	3,091,301	1,480,146	4,571,447
Nov-21	3,112,488	1,548,231	4,660,719
Δ	+21,188	+68,085	+89,273

Monthly net purchases (in EURm)

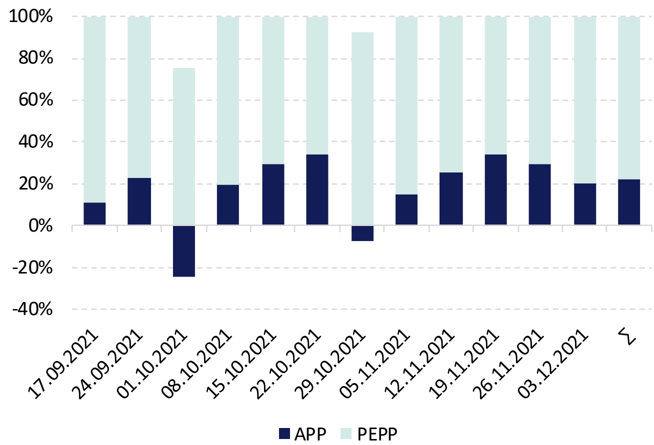


	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	∑
∑	78,092	70,892	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,273	1,092,38
PEPP	57,163	53,046	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,085	848,228
APP	20,929	17,846	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,188	244,160

Weekly purchases



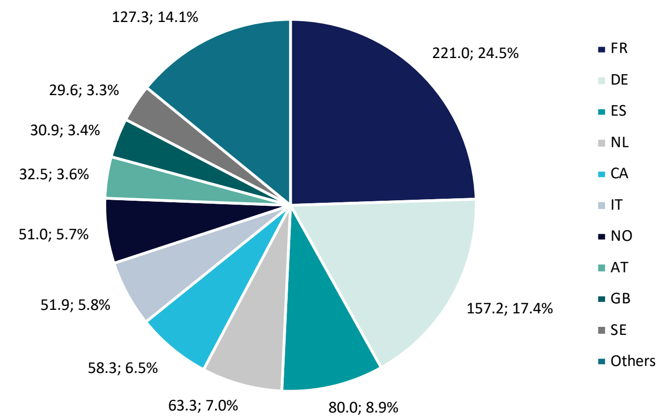
Distribution of weekly purchases



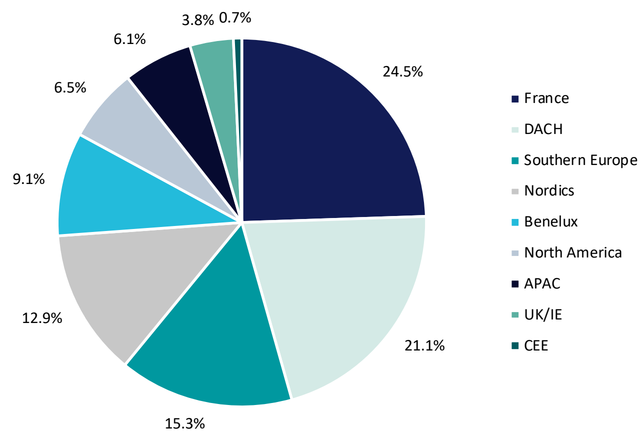
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



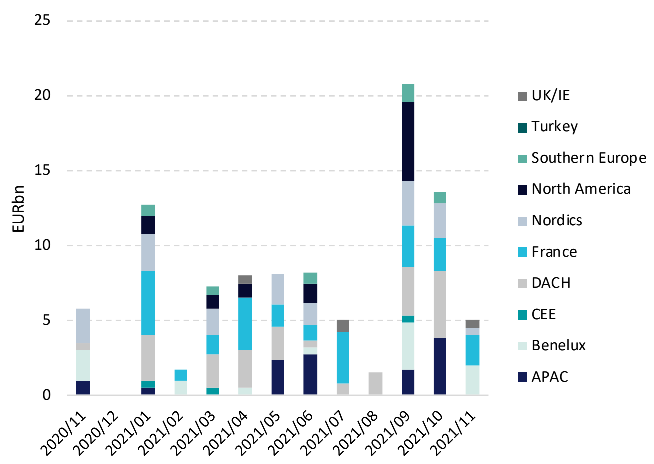
EUR benchmark volume by region (in EURbn)



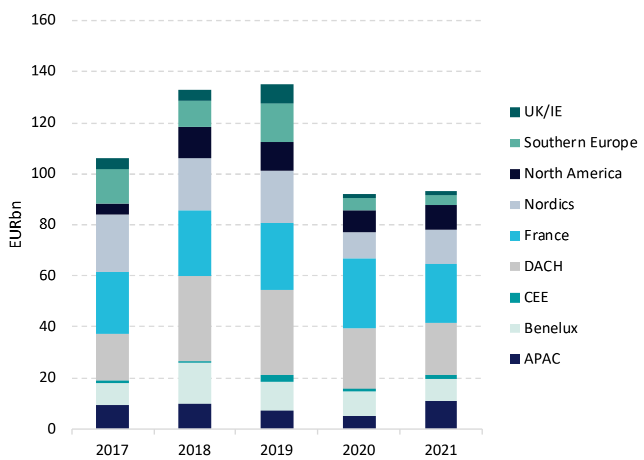
Top-10 jurisdictions

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	221.0	210	11	0.94	10.1	5.5	0.94
2	DE	157.2	232	16	0.61	8.4	4.6	0.42
3	ES	80.0	65	4	1.13	11.6	3.7	1.80
4	NL	63.3	65	0	0.92	11.6	7.6	0.79
5	CA	58.3	51	0	1.11	6.1	3.1	0.22
6	IT	51.9	61	1	0.82	9.0	4.0	1.30
7	NO	51.0	58	9	0.88	7.3	4.0	0.37
8	AT	32.5	60	2	0.54	9.9	6.2	0.60
9	GB	30.9	37	1	0.86	8.5	3.6	0.91
10	SE	29.6	36	0	0.82	7.6	3.6	0.41

EUR benchmark issue volume by month

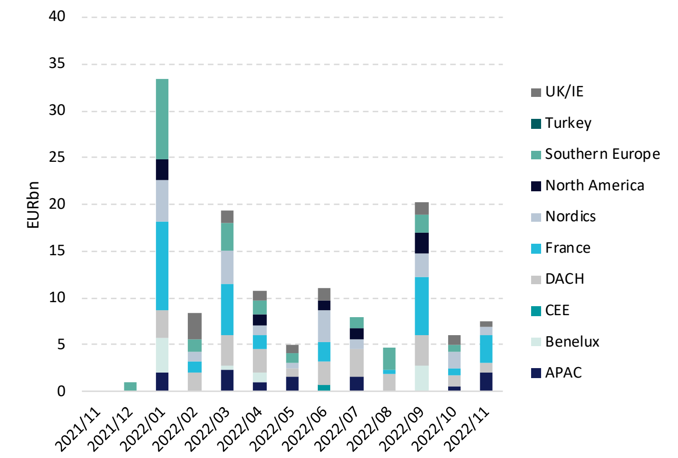


EUR benchmark issue volume by year

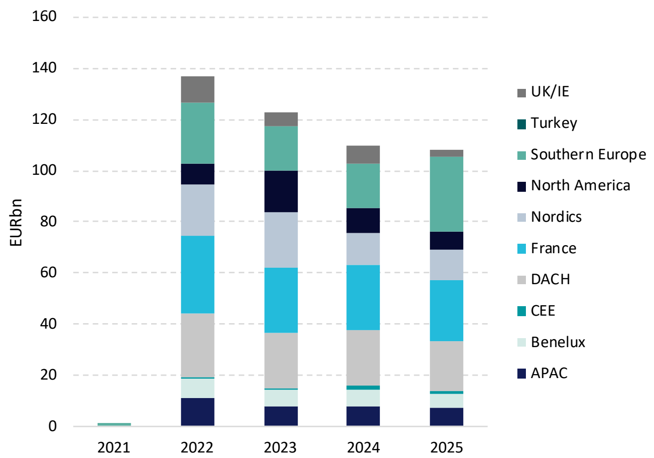


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

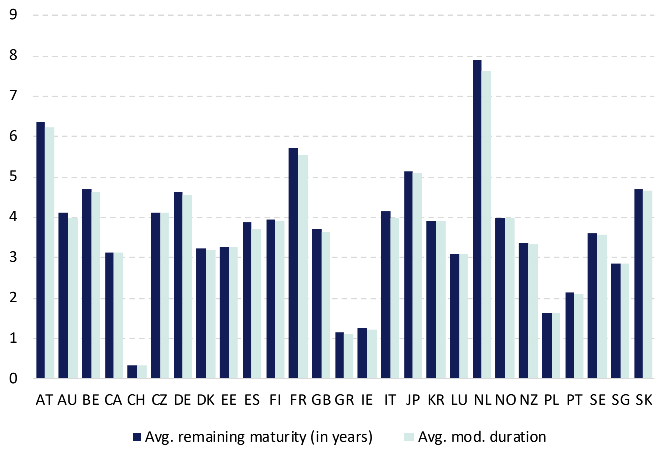
EUR benchmark maturities by month



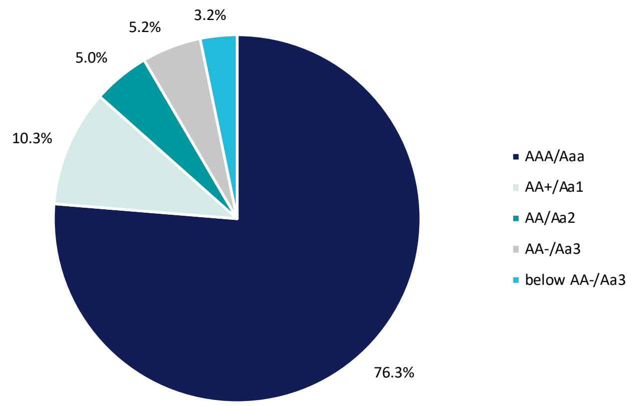
EUR benchmark maturities by year



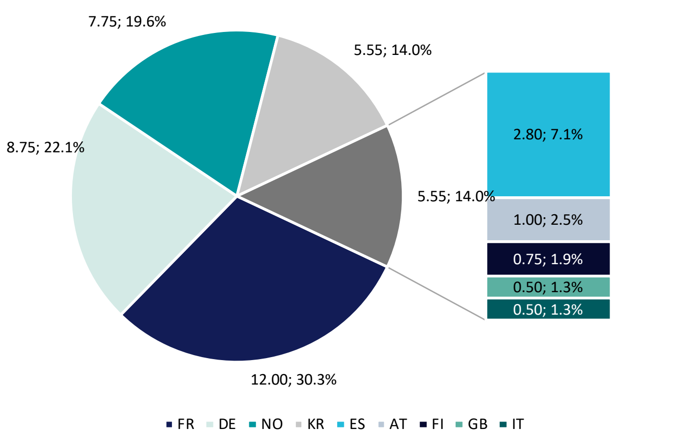
Modified duration and time to maturity by country



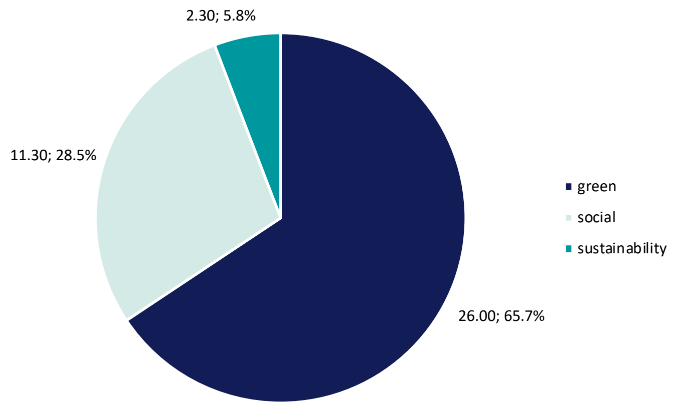
Rating distribution (volume weighted)



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

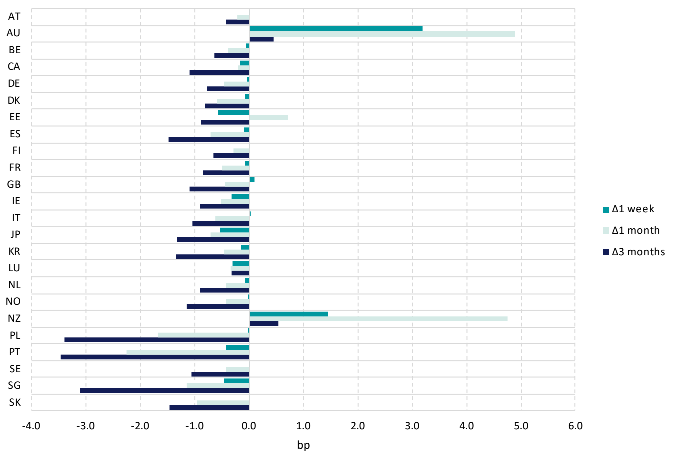


EUR benchmark volume (ESG) by type (in EURbn)

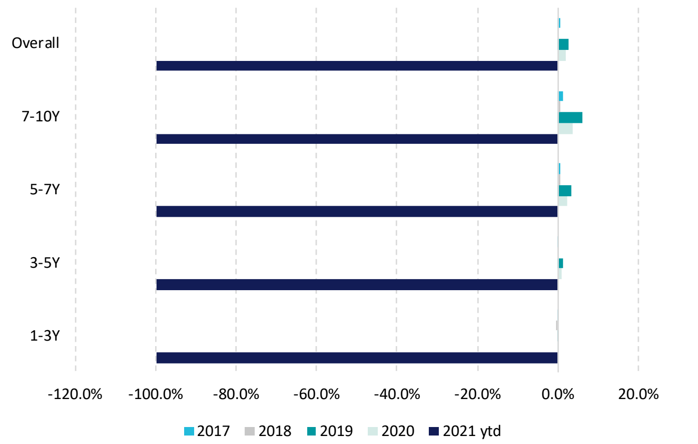


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

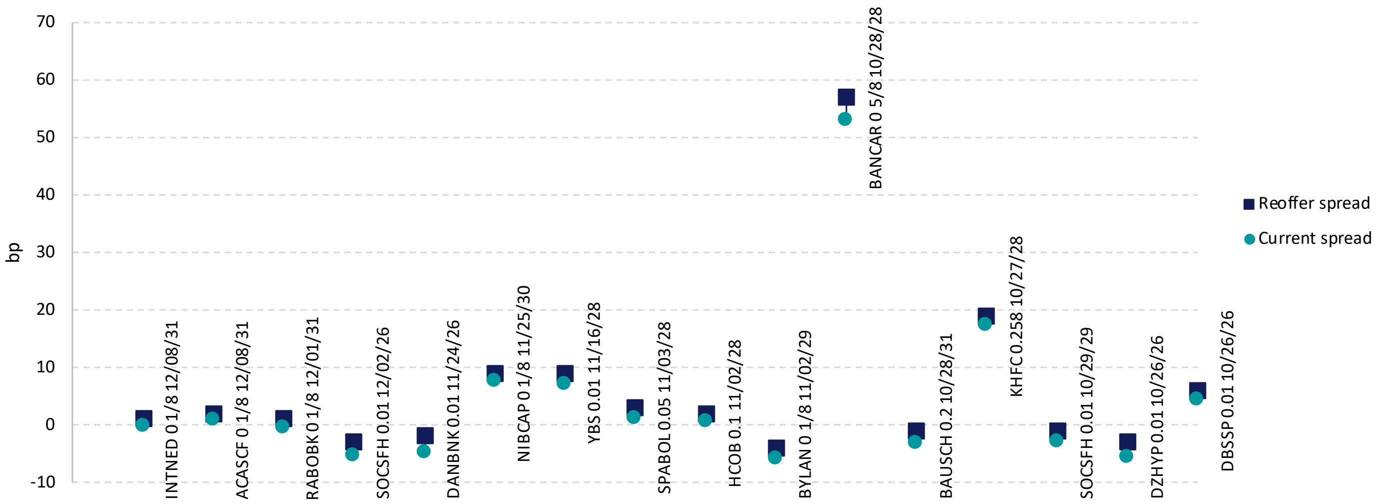
Spread development by country



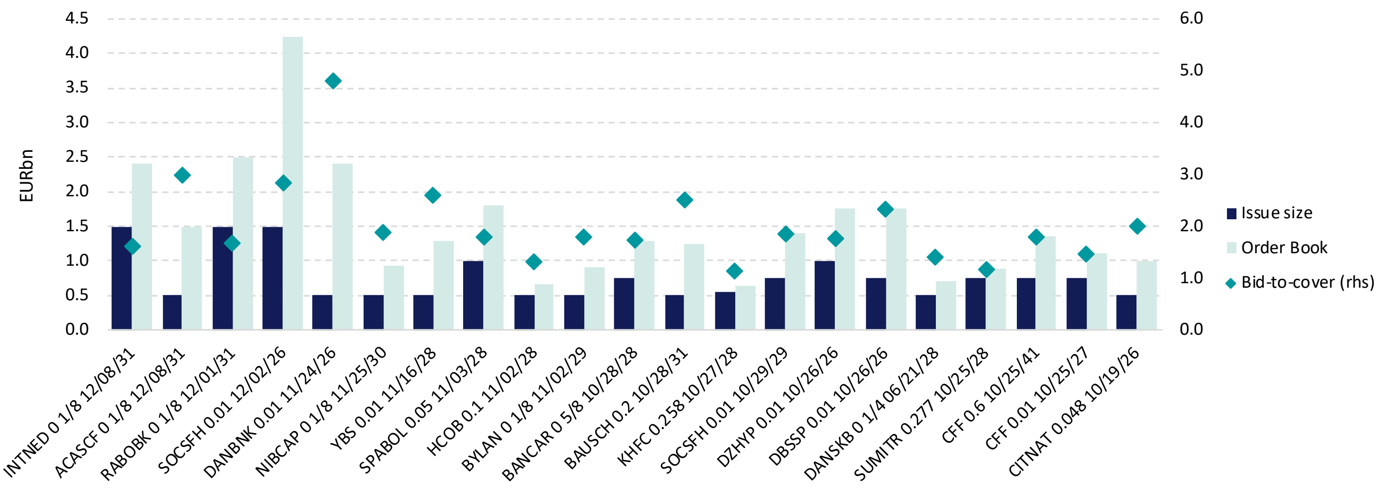
Covered bond performance (Total return)



Spread development (last 15 issues)



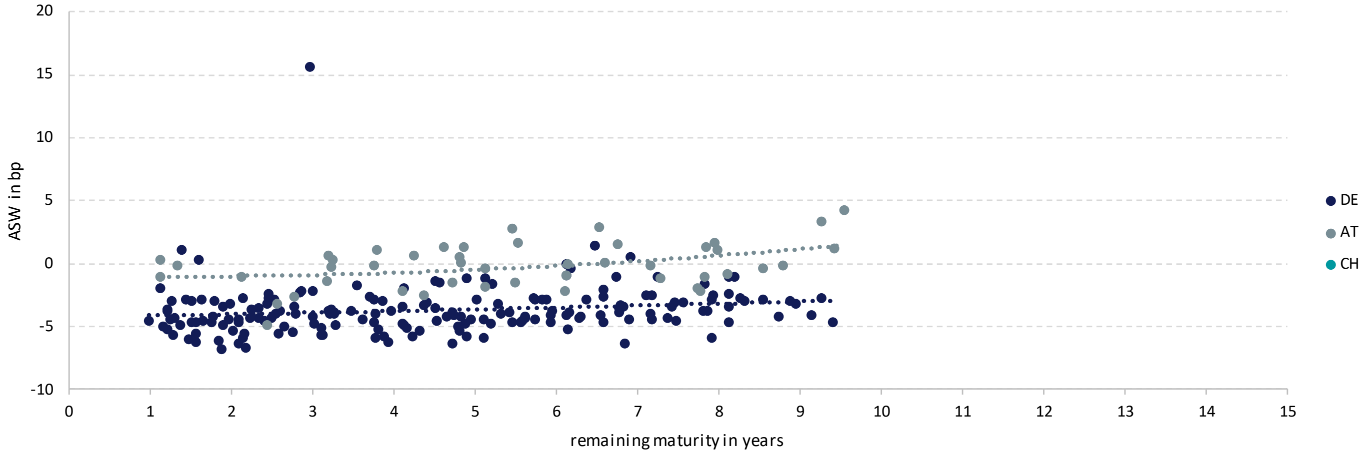
Order books (last 15 issues)



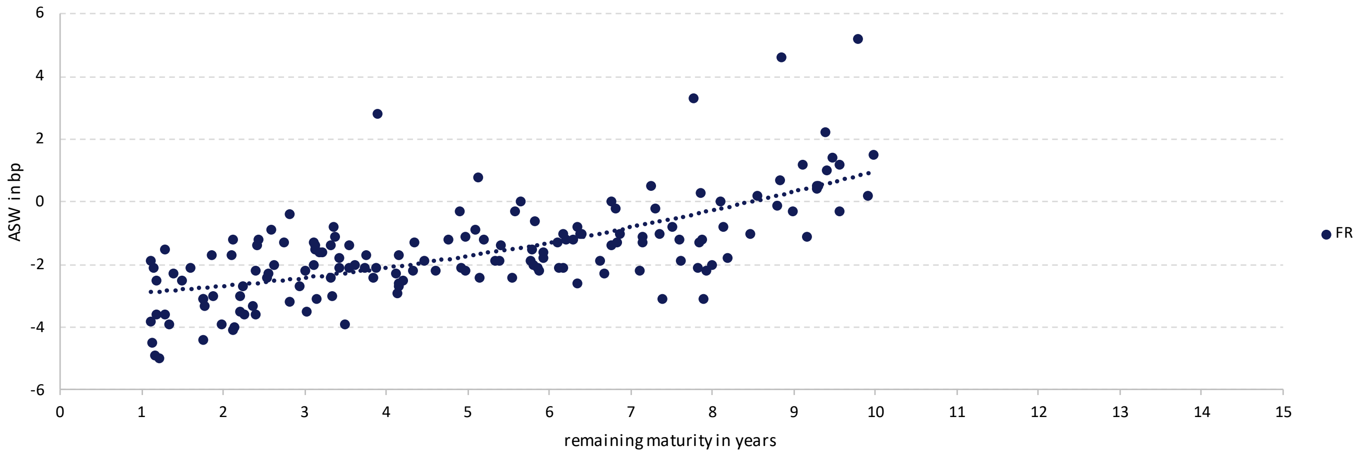
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

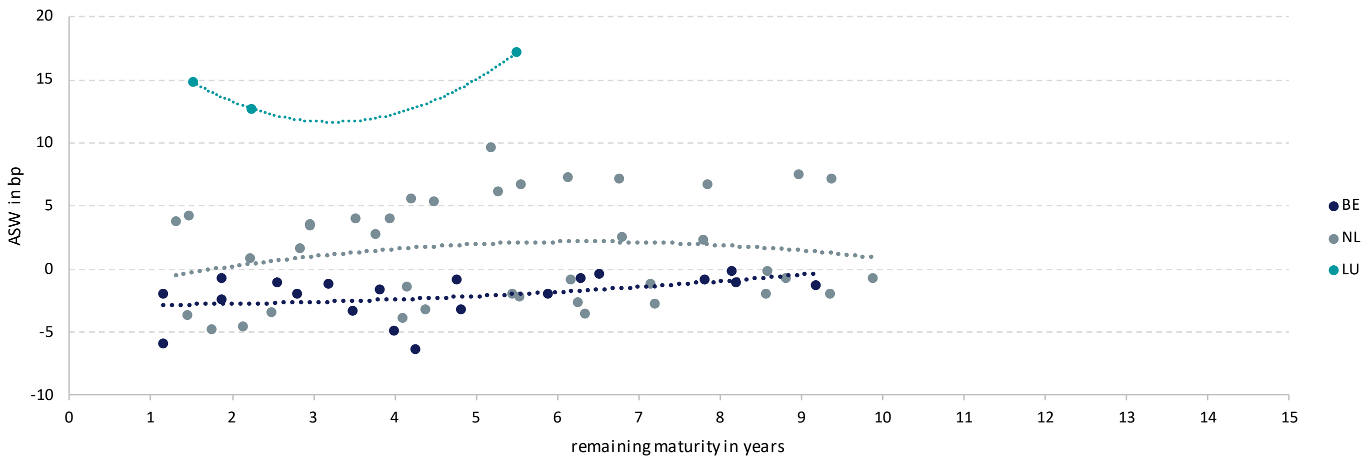
DACH



France



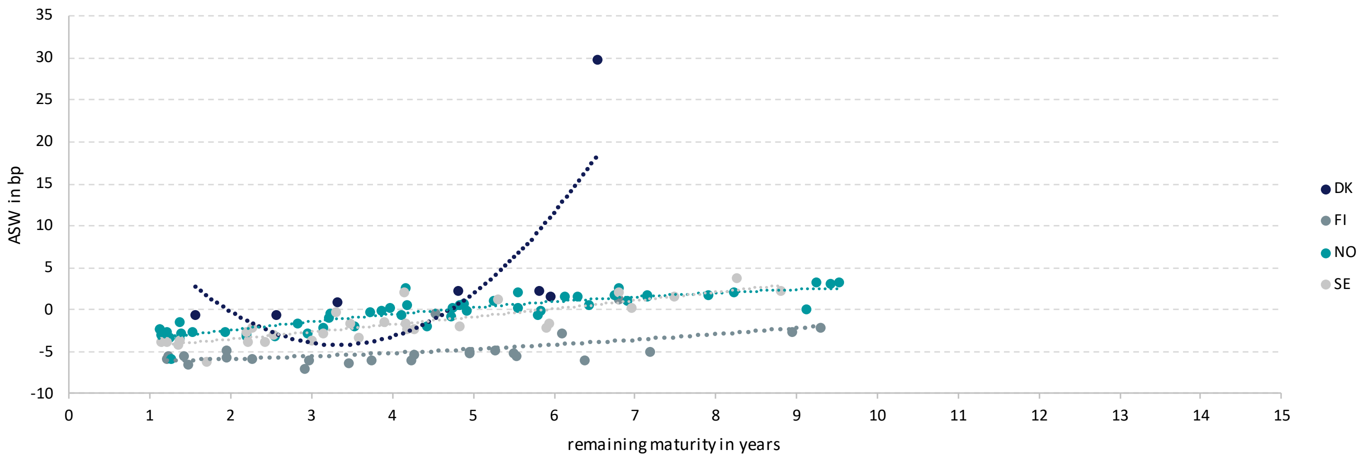
Benelux



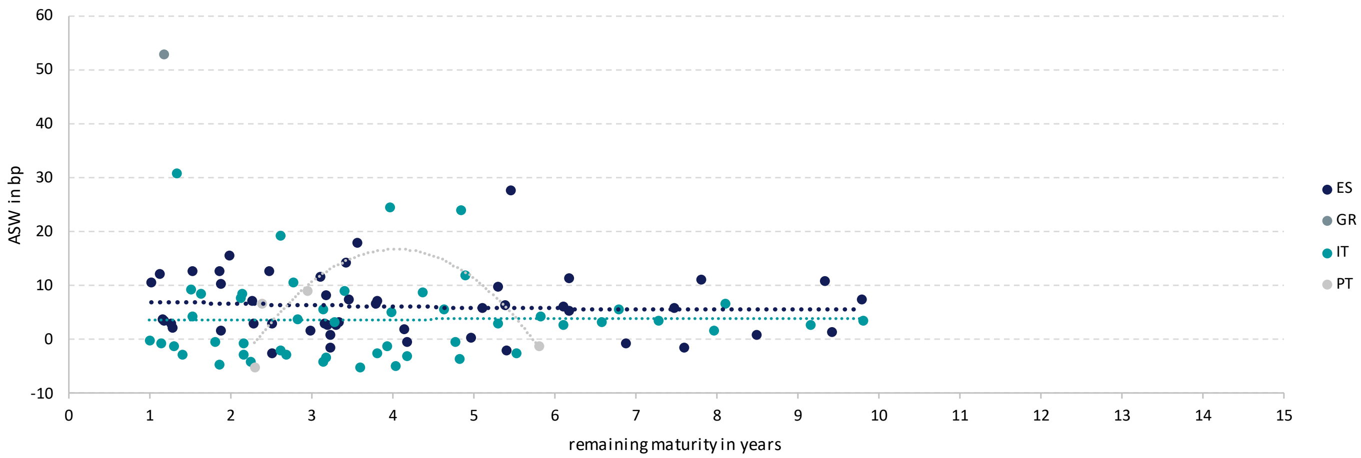
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

NORD/LB

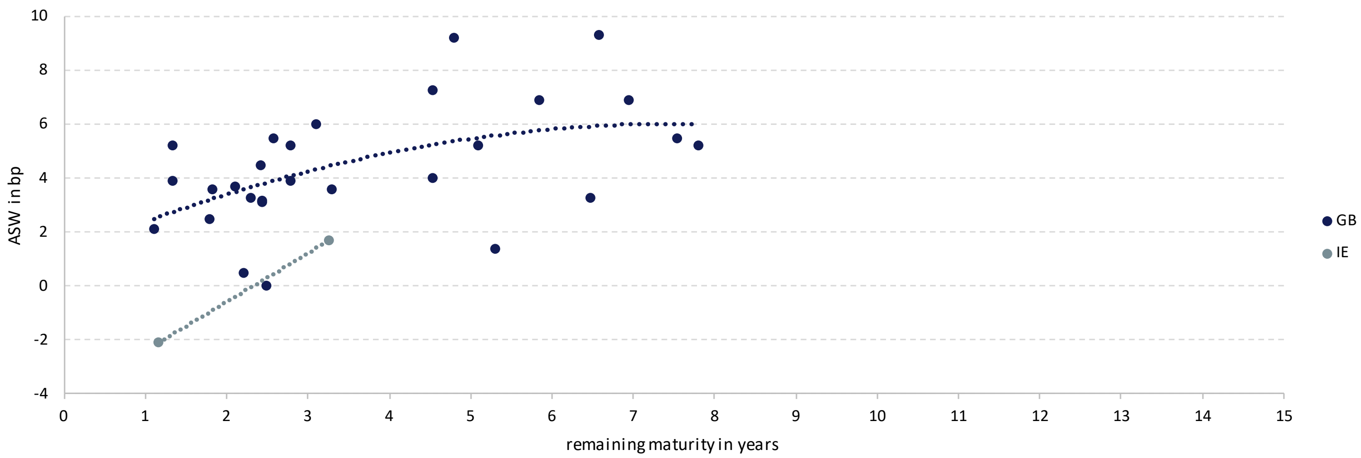
Nordics



Southern Europe

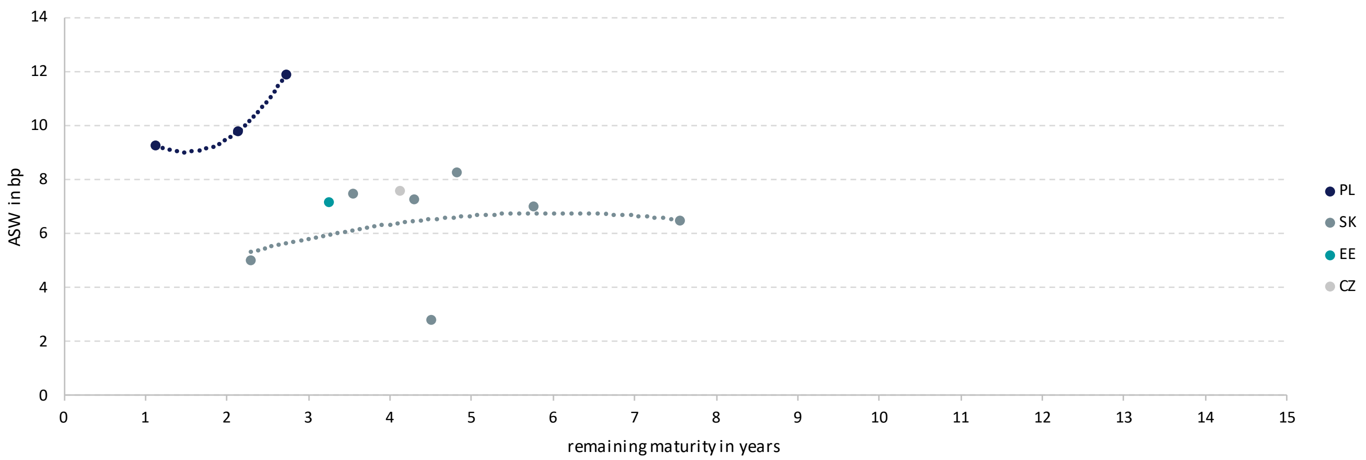


UK/IE

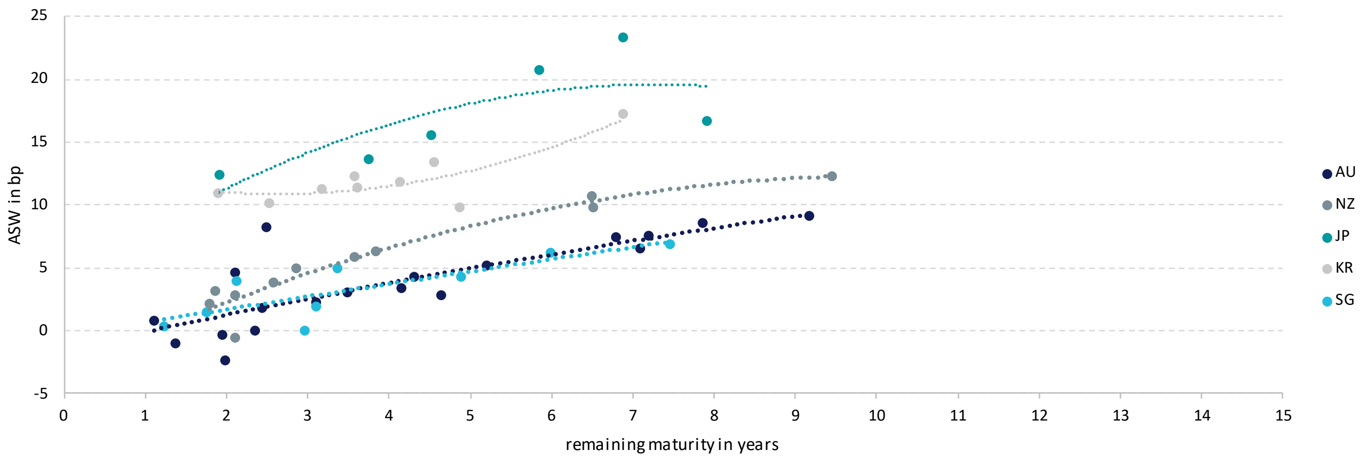


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

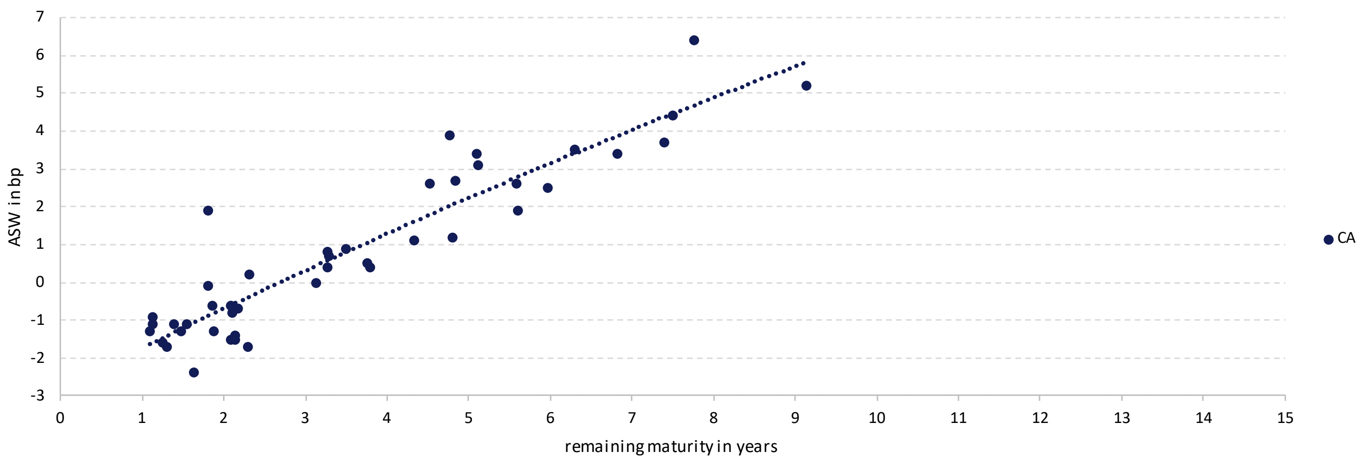
CEE



APAC



North America



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

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
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
25/2021 ♦ 14 July	▪ New ECB strategy – communication remains the be-all and end-all ▪ ECB preview: the first meeting under the "new" regime
24/2021 ♦ 07 July	▪ Covered Bonds: Review of H1 and outlook for H2 2021 ▪ Half-time report 2021 – how will the SSA segment fare in the second half?
23/2021 ♦ 30 June	▪ Return of the Australian covered bond market: National Australia Bank issues first EUR benchmark since 201)

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 – Supranationals & Agencies 2019

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – German Bundeslaender 2021

Issuer Guide – Down Under 2019

Fixed Income:

ESG update

Analysis of ESG reporting

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

ECB launches corona pandemic emergency

ECB responds to corona risks

Appendix
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