Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

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Investment strategy recommendation and marketing communication

(see disclaimer on the last pages)

Agenda

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Market overview
Covered Bonds

Author: Henning Walten, CIIA

Nationwide Building Society kicks off UK activity for the year with record term

The covered bond market experienced higher levels of activity again, especially at the beginning of the current trading week, although the Canadian Imperial Bank of Commerce actually started things off last Thursday. The bank issued another EUR benchmark after a gap of about 13 months, with EUR 1.0bn changing hands for eight years at ms +5bp. More than half of the issuance volume went to investors from the DACH region. In terms of the type of investor, banks dominated (53%) proceedings, followed by funds (24%) and Central Banks/OIs (23%). With an order book of EUR 2.4bn, the deal was significantly oversubscribed and went to market with a negative issuance yield of -0.033%. On Monday, BayernLB then ended its absence from the EUR benchmark market, having completed its last deal in January 2019. The latest new issue initially went to market with a guidance of ms +1bp, but was ultimately issued five basis points tighter at ms -4bp. The EUR 500m deal with a ten-year maturity had a marginally positive yield (+0.055%). Here, too, demand (EUR 2.2bn) was well in excess of supply. Yesterday, two more institutions made an appearance. While this was Muenchener Hypothekenbank's second outing in 2021, Nationwide Building Society not only placed its first deal of the year, but also the first EUR benchmark from the UK in 2021. As in mid-January (18.8y), the Munich-based bank opted for a long maturity (15y) and placed EUR 500m with its investors. After guidance of ms +2bp area, the deal finally went to market at ms -3bp (issuance yield: +0.325%). With an order book of EUR 1.1bn, the deal was more than twice oversubscribed. In total, 91% of the bond remained in the domestic market of Germany, while a total of 44 investors were involved in the deal overall. With a term to maturity of 15 years, the share of insurance companies and pension funds (32%) was higher, although banks still constituted the most important investor group (37%). The remaining volume was split roughly 50:50 between central banks and asset managers/funds. Yesterday, Nationwide BS also approached its investor base with a EUR benchmark, having already been active with a GBP benchmark in 2021 (see paragraph below). Almost two years after its last EUR appearance, the institution placed the UK’s first EUR benchmark of the year. A record term to maturity of 20 years was also chosen, the likes of which the market has never seen before for EUR benchmarks from the UK. Nationwide BS is also responsible for the last three EUR benchmarks with terms in excess of 10 years from the UK, although these deals were brought to market in 2014, 2015 and 2017. With demand of EUR 2.3bn, the bond was 4.6 times oversubscribed. The issuance yield was over half a percent (+0.572%), in part due to the long maturity.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Nationwide BS	GB	27.04.	XS2338561348	20.0y	0.50bn	ms +10bp	AAA / - / AAA	-
MuenchenerHyp	DE	27.04.	DE000MHB28J5	15.0y	0.50bn	ms -3bp	- / Aaa / -	-
BayernLB	DE	26.04.	DE000BLB6JK8	10.0y	0.50bn	ms -4bp	- / Aaa / -	-
CIBC	CA	22.04.	XS2337335710	8.0y	1.00bn	ms +5bp	AAA / Aaa / -	-

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

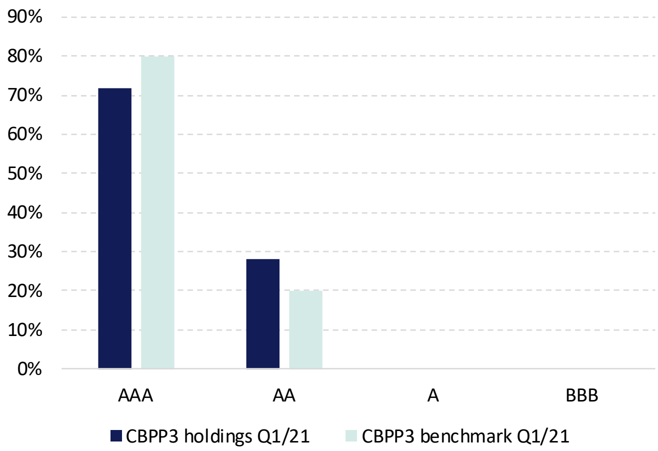
Aareal Bank places the third GBP benchmark in 2021; new deal from NATIXIS Pfandbrief-bank

In addition to the primary market deals in the EUR benchmark segment, signs of life were also recorded from two other submarkets last week. Aareal Bank placed the third GBP benchmark of the year last Thursday. The four-year bond (ISIN: XS2337339977) in the amount of GBP 500m with a variable interest rate follows deals by Deutsche Pfandbrief-bank (20 April) and Nationwide Building Society (16 February), which were also SONIA-based. It was priced at SONIA +31bp. At the end of the previous week, there was also movement in the market for EUR sub-benchmarks. NATIXIS Pfandbriefbank mandated for a EUR 250m deal with a ten-year maturity. First investor meetings have been held and we expect pricing to be determined today, Wednesday. The German subsidiary of France's NATIXIS, which in turn is part of the BPCE Group, was last active in the EUR sub-benchmark segment in November 2019 and is expected to issue the sixth EUR sub-benchmark of the current year, increasing the issuance volume in this submarket to EUR 1.7bn.

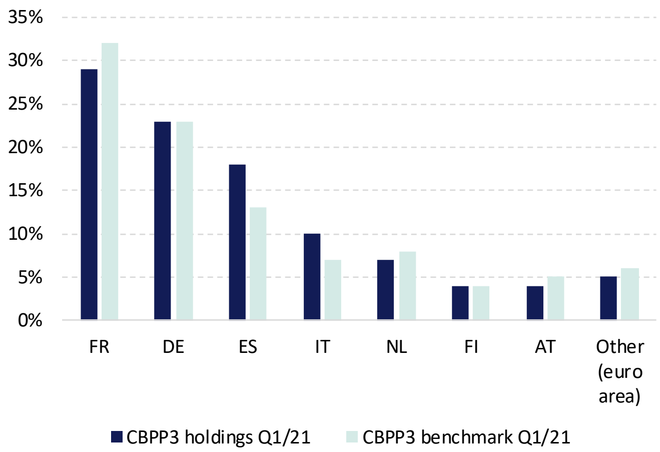
ECB publishes update on CBPP3 structure

As is customary after the end of the first and third quarters, the ECB has updated its only insight into the portfolio structure of the CBPP3. According to this, the share of AAA bonds has risen by two percentage points to 72% compared with the third quarter of 2020, while the share of AA deals has fallen by a corresponding two percentage points. Its own bench-mark, for which the determination criteria are not known to us, is however 80% for AAA bonds. In terms of the geographical distribution of the securities held in the CBPP3, there were also only minor changes to the structure. The FR share rose from 27% to 29%, while German Pfandbriefe account for 23%, one percentage point more than six months ago. In contrast, the shares of deals from Italy and Spain declined, falling by an aggregated value of three percentage points. Overall, the CBPP3 has a high level of stability with regard to both the credit ratings and the origin of the bonds purchased. As usual, further information on the CBPP3 can be found in our ECB Tracker.

CBPP3 structure by ratings



CBPP3 structure by jurisdiction



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

Market overview
SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

Review of last Thursday's ECB meeting

Recent market events led the European Central Bank to metaphorically kick back with a coffee as the central bankers opted for a wait-and-see approach. Unsurprisingly, the interest rates for the main refinancing operations (0.00%), deposit facility (-0.50%) and marginal lending facility (0.25%) remained unchanged. The ECB also made no changes to the total volume and expected end of the Pandemic Emergency Purchase Programme (March 2022) and the APP parameters. In addition, Christine Lagarde, President of the European Central Bank, confirmed the first measurable successes following the acceleration of PEPP bond purchases during the current quarter compared to the first months of this year. However, she asked for patience and pointed to monthly data rather than volatile weekly data. Calmness and patience are not the most inappropriate qualities here, but the interpretative prerogative lies with the observer and not the ECB. Questions in connection with tapering could also be interpreted in the same way, despite the fact that the acceleration of purchases has only just begun. By temporarily speeding up the pace of PEPP purchases the ECB is putting its words into action. In our opinion, frontloading and exploiting the high level of flexibility of the PEPP are not an adjustment of the basic strategy. No, the ECB continues to stay well within its set guidelines. We have been calling this “the breathing of the programmes” since 2015. Accordingly, there is no rush to reinvest the maturities. Enough material will still be issued due to the pandemic. The ECB also remains willing to adapt all instruments if necessary. This explicitly includes a further expansion of the PEPP. The ECB is still not pursuing explicit yield targets or yield curve control. With its crisis measures the ECB will continue to support a sustainable recovery from the crisis and prevent any unwelcome tightening of financing conditions with its set of instruments. Our Chief Economist takes the view that the ECB is looking beyond the inflation increase seen in 2021, which is largely temporary and caused by distortions as well as special effects.

Initial indications for June meeting already available

According to the news agency Bloomberg, the ECB expects a difficult June meeting. The stumbling block is said to be differing views about economic optimism and due caution. Some members would be willing to argue that the pandemic emergency purchase programme (PEPP) should be scaled back from Q3 onwards, as the economy is likely to recover strongly from the pandemic in the second half of the year. So far, all sides have been able to happily live with the ECB President's statements commented on above. This applies both to the hawks, who are calling for bond purchases under the PEPP programme to be scaled back swiftly (internal and external), and the doves, who want to maintain the present course for a good while yet. We consider 10 June premature, although any controversial discussion is welcome. Further meeting dates are scheduled for 22 July and 9 September. Since the APP and PEPP are likely to see a natural curtailment of purchasing activity over the summer months anyway, there is no need for a superficial discussion or decision on curtailment in our view.

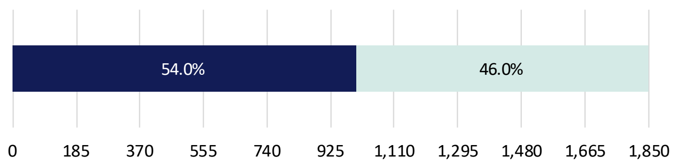
PEPP weekly values

Even though Christine Lagarde explicitly asked us to only look at monthly values, we always show the weekly purchase volume in our annex as well. We see this as a good guide, but do not focus too much on the commentary, as we are well aware of the volatility of the data. In the week ending 23 April, the ECB mainly purchased government bonds and sub-sovereign securities, but also corporate bonds and other securities with a net volume of EUR 22.2bn. This is the highest weekly volume since the end of June 2020 and an increase of more than one third compared with the previous week.

Volume of the purchase programme (EUR m)

	PEPP
Feb 2021	870,126
March 21	943,647
Δ	+73,521

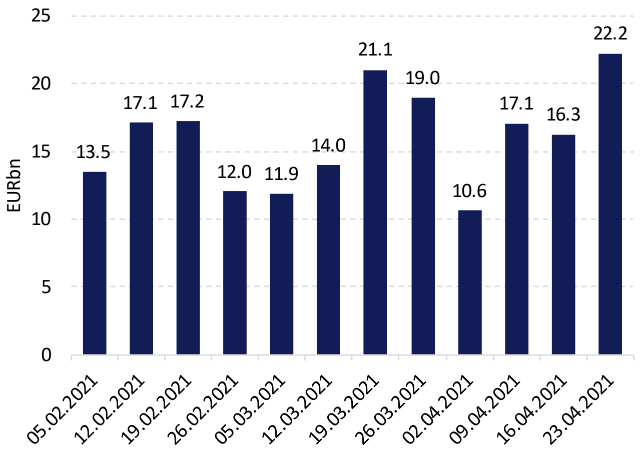
Volume already invested (EUR bn)



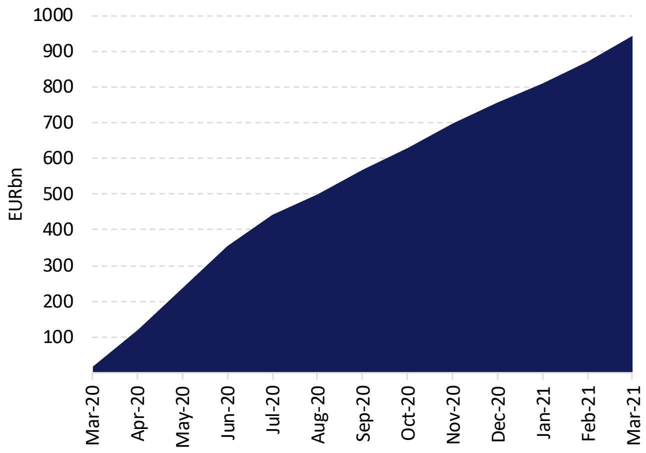
Estimated portfolio development

Assumed future purchase pace	Weekly net purchase volume	PEPP Limit hit in...
Average net weekly purchase volume so far	EUR 17.8bn	48 weeks (25 March 2022)

Weekly PEPP purchase volume



Trend in PEPP volume



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

Bank of Canada sees tapering as necessary

Away from the mainstream, things are happening that should be highlighted. The Bank of Canada has been under some pressure to reduce asset purchases as the central bank now already owns 42% of outstanding government bonds (GoC) – a higher percentage than other central banks. The governor said 50% would have worrying consequences for the market. With this in mind, tapering of CAD 1bn to CAD 3bn per week was now needed. GoC bonds make up the largest part of the central bank balance sheet, accounting for more than 70%, up from 55% back in January. Given the size of Canada's bond market and the Canadian economy, this means that the Bank of Canada (has) administered a significant stimulus.

Next Generation EU: Germany expecting volume of EUR 28bn

According to media reports, the German government expects Germany to be awarded roughly EUR 28bn of the EUR 809bn from the European Union's coronavirus recovery fund. According to a government representative, the cabinet has approved the reconstruction plan presented by Finance Minister Olaf Scholz. Around 90% of the planned expenditure was for climate protection and digitalisation. The EU targets would thus be clearly exceeded. Scholz presented the details in a joint press conference with France's Finance Minister Bruno Le Maire. Since the investment backlog in Germany in regard to climate protection and digitalisation is much larger than just EUR 28bn, we are somewhat at a loss as to why future issues have been put on the backburner.

German government earns EUR 2bn in Q1 through bond issues

Before we turn to the original primary market for SSA bonds, let us take a brief look at the consequences of negative interest rates for the German federal government. The issuance of bonds and other capital market instruments to finance the budget, including special funds, generated around EUR 2bn in revenue. This is according to a letter made available to the news agency Reuters from Parliamentary State Secretary at the Federal Ministry of Finance Sarah Ryglewski in response to a question from Fabio De Masi of the Left Party, a member of the Bundestag. The Finance Agency, which is responsible for the federal government's debt management, amassed an issuance volume of EUR 59.7bn in the first quarter. The average issue yield amounted to -0.54%. Nevertheless, the auctions were oversubscribed. The average bid-to-cover ratio was 1.5x. To combat the pandemic, the federal government plans to issue a total of EUR 471bn in the current year. At present, the planned record debt is currently being accompanied by yet another record. Interest expenditure last year fell to EUR 6.4bn – the lowest level in decades. Also, because of the slight rise in interest rates, the federal government is increasing the item for expected interest expenditure by EUR 4.5bn to EUR 10.3bn in its supplementary budget for this year.

Primary market

New bonds in the SSA segment were surprisingly thin on the ground this week: For our table, we could only highlight the ESM deal. As planned, the Luxembourg-based organisation raised EUR 2bn per quarter. Consequently, the ESM is not expected to crop up again until July, i.e. in the third quarter. The books were over EUR 12bn (WNG had originally been advised), with the result that the deal could ultimately be priced at ms -10bp after guidance of ms -8bp. This was followed by a tap from KfW. A total of EUR 1bn (top-up of 09/2030) came to ms -11.5bp. Otherwise, the market is waiting for Bpifrance's inaugural green deal (ticker: OSEOFI). Investor calls on the new Green Bond Framework will take place from 26 to 28 April. There is a seven-year deal in the pipeline here. The new EUR bond from Quebec in Canada is already somewhat closer to the market. The syndicate has been mandated, and we expect the ten-year transaction to go through today (Wednesday 28.04). The inaugural digital bond from the EIB on an Ethereum basis was unexpectedly quick and mainly exciting. Some investors had left their offices already yesterday afternoon when a deal worth EUR 100m for two years was announced. The syndicate has also been mandated for this transaction. Pricing had already been fixed by around midnight yesterday (ms -12bp; not listed).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
ESM	SNAT	26.04.	EU000A1Z99P9	10.4y	2.00bn	ms -10bp	AAA / Aa1 / AAA	-

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

Covered Bonds
EU Taxonomy meets the market for sustainable covered bonds

Authors: Dr Frederik Kunze // Henning Walten, CIIA

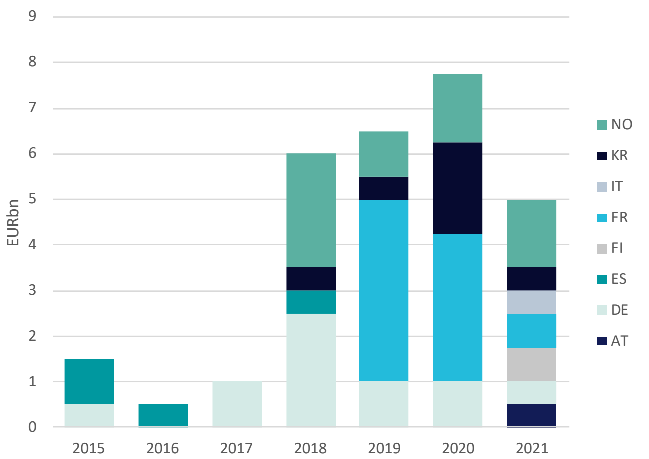
Green covered bonds and the EU taxonomy

Last week, within our weekly publication, we referred briefly to the package of measures to connect finance with sustainability drawn up by the European Commission. For the sub-segment of green covered bond issues in particular, the focus in this context is on the implications for cover assets considered green, which is justified not least by the fact that the bond segment and the taxonomy are linked via the EU Green Bond Standards. We would like to take the published requirements for green bonds and real estate as an opportunity to provide an up-to-date overview of the market for ESG covered bonds and, in doing so, look at the resultant interdependencies for issuers and investors.

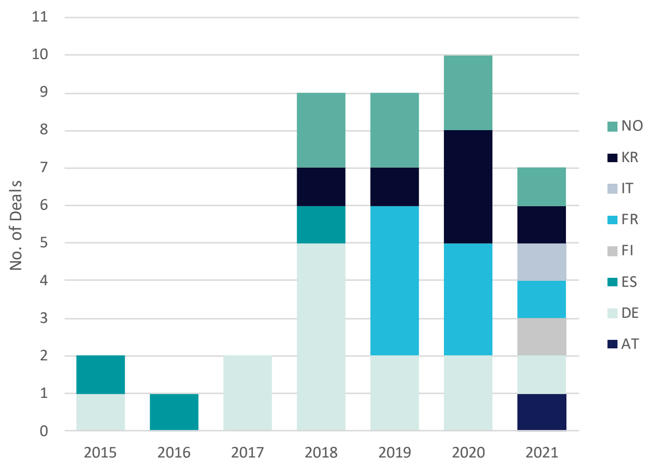
ESG covered bonds on the market since 2015

The sustainable covered bonds segment was utilised for the first time in April 2015 by Germany's Berlin Hyp, which placed a green mortgage Pfandbrief. In the same year, Kutxabank from Spain approached its investors with a social covered bond. The third EUR benchmark transaction in ESG format followed in 2016, which also introduced the third possible category for the ESG segment on the market for covered bonds: the sustainability covered bond. The issuer was another Spanish bank, namely Caja Rural de Navarra. While 2017 can confidently be described as a mixed year as far as EUR benchmarks in sustainable format are concerned, the market really gathered momentum for the first time in 2018. More issuers and jurisdictions led to new deals totalling EUR 6.0bn by the end of the year. Since then, the market for EUR benchmarks has grown continuously with regard to the ESG volume issued. The year 2020 in particular showed that despite declining issuance volumes in the EUR benchmark segment, the ESG sub-segment continues to grow and become increasingly significant.

ESG: issuance history EUR benchmarks (volume)



ESG: issuance history EUR benchmarks (deals)

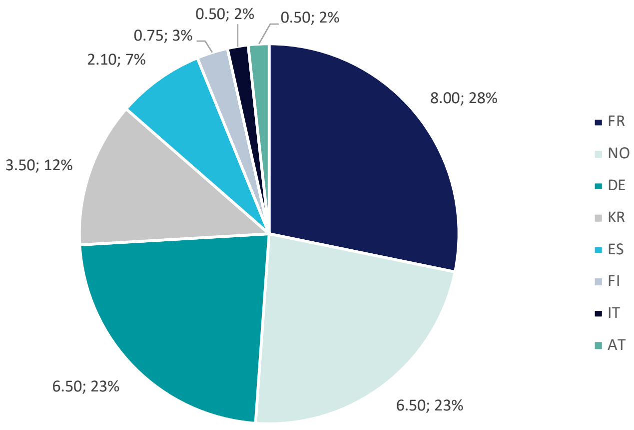


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

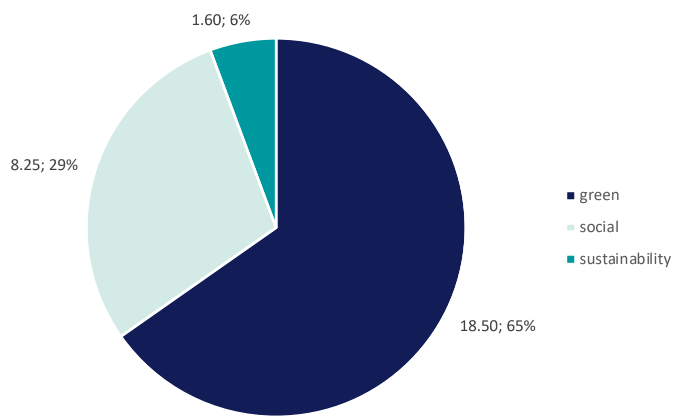
2021: new countries, new issuers

The first few months of the current year underline this development. Accordingly, EUR benchmarks in ESG format have already been placed from seven jurisdictions and the issuance volume has already reached 65% of the previous year's volume. With Hypo Tirol Bank from Austria (social), Credit Agricole Italia (green) and OP Mortgage Bank from Finland (green), the market not only registered three new issuers in the ESG segment in Q1 2021 but at the same time three new jurisdictions from which EUR benchmarks in ESG format were placed. The group of first-time ESG issues was joined by South Korea's KEB Hana Bank, which issued its first EUR benchmark as a social covered bond. Overall, we would not be surprised if, despite the December forecasts of a falling market in 2021, the ESG segment were also to post a new issuance record in 2021.

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



EUR benchmark volume (ESG) by format (in EUR bn)



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

40 issues, 22 issuers, 8 countries: green bonds dominate

The market for EUR-denominated benchmark bonds in ESG format currently comprises 40 deals in total. While French banks have placed the largest volume on the market, at EUR 8.0bn (8 deals), German banks dominate in terms of the number of deals (13 bonds worth EUR 6.5bn). In contrast, Norwegian issuers have also placed EUR 6.5bn to date but spread across only seven benchmarks. Overall, issuers from Austria, Germany, Spain, Finland, France, Italy, South Korea and Norway have issued EUR benchmarks in ESG format in the past, although this market currently consists of eight jurisdictions. With regard to the three forms of ESG bonds, green covered bonds clearly predominate, which is not surprising given the numerous mortgage covered bond programmes. A total of 65% of the ESG volume (EUR 18.5bn) or 25 deals are attributable to green issues. The category social covered bonds accounts for 29% or EUR 8.25bn (12 deals). While green covered bonds, with the exception of an issue by CAFFIL, were issued solely as mortgage covered bonds, there are several bonds among social issues, which are collateralized by both mortgage assets (8 deals) and also public sector receivables (4 deals). In contrast, the three bonds in the sustainability bond format are a rarity and were only used by two issuers (Caja Rural de Navarra (ES) and Kookmin Bank (KR)).

EUR benchmark issuers with outstanding ESG bonds

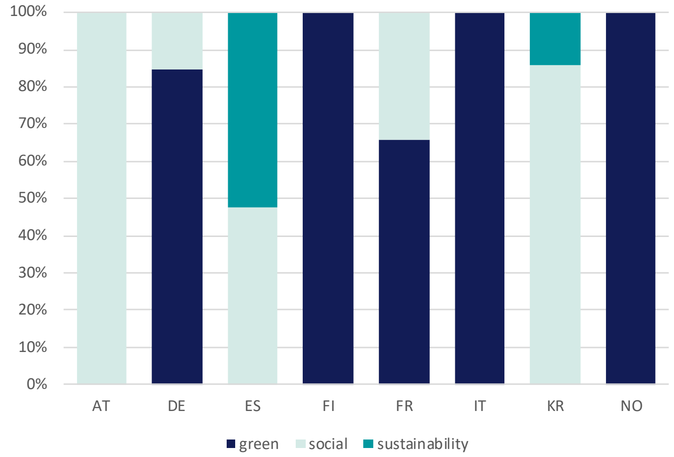
Issuer	Country	Green (Volume / No. of Bonds)	Social (Volume / No. of Bonds)	Sustainability (Volume / No. of Bonds)	Total (Volume / No. of Bonds)
Hypo Tirol Bank	AT	-	0.50bn / 1	-	0.50bn / 1
Berlin Hyp	DE	3.50bn / 7	-	-	3.50bn / 7
Deutsche Hypo	DE	1.00bn / 2	-	-	1.00bn / 2
DKB	DE	-	1.00bn / 2	-	1.00bn / 2
MuenchenerHyp	DE	0.50bn / 1	-	-	0.50bn / 1
LBBW	DE	0.50bn / 1	-	-	0.50bn / 1
Caja Rural de Navarra	ES	-	-	1.10bn / 2	1.10bn / 2
Kutxabank	ES	-	1.00bn / 1	-	1.00bn / 1
OP Mortgage Bank	FI	0.75bn / 1	-	-	0.75bn / 1
CAFFIL	FR	0.75bn / 1	2.75bn / 3	-	3.50bn / 4
Societe Generale SFH	FR	2.00bn / 2	-	-	2.00bn / 2
BPCE SFH	FR	1.25bn / 1	-	-	1.25bn / 1
Credit Agricole Home Loan SFH	FR	1.25bn / 1	-	-	1.25bn / 1
Credit Agricole Italia	IT	0.50bn / 1	-	-	0.50bn / 1
KHFC	KR	-	2.50bn / 4	-	2.50bn / 4
KEB Hana Bank	KR	-	0.50bn / 1	-	0.50bn / 1
Kookmin Bank	KR	-	-	0.50bn / 1	0.50bn / 1
DNB	NO	3.00bn / 2	-	-	3.00bn / 2
SpareBank 1	NO	2.00bn / 2	-	-	2.00bn / 2
Sparebanken Vest	NO	0.50bn / 1	-	-	0.50bn / 1
SR-Boligkreditt	NO	0.50bn / 1	-	-	0.50bn / 1
Sparebanken Soer	NO	0.50bn / 1	-	-	0.50bn / 1
Total		18.50bn / 25	8.25bn/ 12	1.60bn / 3	28.35bn / 40

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

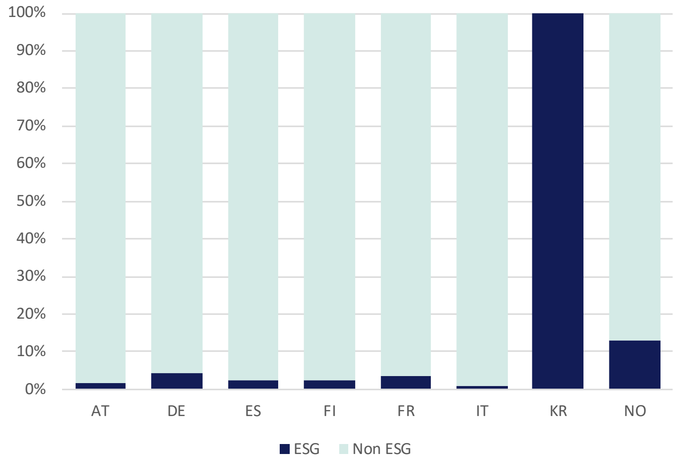
No jurisdiction with all three ESG forms

With regard to the eight jurisdictions from which EUR benchmarks in ESG format have so far been issued, a mixed picture emerges. Accordingly, both green and social covered bonds in benchmark format have been issued from Germany and France to date. Spain and South Korea have each also seen two different ESG forms issued, albeit here it was the combination of social and sustainability covered bonds. Solely green covered bonds have been issued from Norway, Italy and Finland, although the last two jurisdictions mentioned have each placed only one ESG bond on the market for EUR benchmarks so far. In contrast, the social format was chosen for the single ESG benchmark for Austria, whereby the alpine republic is the only jurisdiction in which only social covered bonds are available.

Share of ESG type by jurisdiction



Share of ESG deals in the EUR benchmark segment



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

Proportion of ESG bonds extremely low with some exceptions

Although the ESG segment is increasingly important and is attracting more attention not just in the covered bond market, EUR benchmarks in ESG format are still a niche market. This is apparent, for example, from looking at the current composition of the iBoxx EUR Covered. It contains 38 of the 40 ESG benchmarks (the latest deals by CAFFIL and Berlin Hyp are not yet included) with a volume of EUR 27.10bn. Compared with the 885 bonds in total included in the index (EUR 765.54bn), this equates to an ESG share of 3.5% (volume) or 4.2% (number of bonds). Also, in terms of ESG jurisdictions, it is clear that the thesis of the niche market is supported in the majority. South Korea constitutes a particular exception since all EUR benchmarks were brought to the market in ESG format. Norway must also be highlighted, since the proportion here is still 13.1%. In contrast, in the six remaining ESG jurisdictions, the proportion of sustainable EUR benchmarks stands between 4.3% (Germany) and 1.0% (Italy).

EU taxonomy: a real help or a disservice?

The European Commission initially introduced a uniform market standard for sustainable economic activities with the taxonomy. Specifically, it is a classification system which is expected to help boost growth in the market for sustainable finance by defragmenting the sustainable investment landscape and by reducing distrust. Of the taxonomy regulation's six environmental objectives in total, the first two (climate change mitigation and climate change adaptation) have been underpinned with technical screening criteria (TSC). The four outstanding environmental objectives (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems) are to be underpinned with criteria and codified in a second Delegated Act by the end of 2022. In combination with the definitely surmisable increase in demand for sustainable and, in particular, green forms of investment, a shortage can be deduced from the above-mentioned still low proportion of ESG issues among covered bonds. In this respect, the ongoing measures to shape the market for green bonds by Brussels are to be welcomed, although the political requirements (as exemplified in the EU green bond standard) also pose the risk of undoing previous successes.

Criteria could have hit the green covered bond market hard

In relation to the green covered bond market, previous drafts definitely had the potential to set standards not attuned to prevailing market conditions or to steer investors away from investments in green issues from the segment without there really being many alternatives. Accordingly, the admissibility of some cover assets as green assets was significantly more restricted in earlier versions of the Brussels text than in the framework now provided. In the context of the EU package of measures, the requirement of a class A energy performance certificate (EPC) or – as an alternative – the criterion that the property ranks among the top 15% of the national or regional building stock (cf. Annex I, p. 176 et seq.) applies to newly acquired properties. With the "do no significant harm" (DNSH) criteria, membership of the top 30% of the national or regional building stock applies to the building in question as an alternative to the class C EPC (cf. Annex II, p. 254 et seq.). The new draft of the Delegated Act also provides for the fact that buildings constructed after 2021 must have an energy requirement 10% below the standard applicable to low energy houses (cf. Annex I, p. 165 et seq.), which implies an improvement on the previous draft (previously a threshold of -20% applied here). With regard to the sub-segment of green covered bonds (but also unsecured green bank bonds), the adjustments are to be welcomed in that a major part of the current asset universe is also preserved in the context of the EU taxonomy. In our opinion, this is particularly relevant for future issuance patterns. Ultimately, the possibility of meeting a constantly increasing demand for green (covered) bonds not only depends on issuers' willingness to issue green bonds but is also simply limited by the availability of green assets in the form of property financing. The extensive compliance of the current criteria from Brussels with market standards will allow an expanding market to keep functioning.

Moody's acknowledges adjustments

In a recent Sector Comment, the risk experts at Moody's commended the recent adjustments to the criteria for energy efficient buildings and their impact on credit quality. Accordingly, in the opinion of Moody's, the adjustments also led to the fact that the availability of "green" financing or other activities in this context would improve. In the analysts' opinion, this would also mean that the units affected – including covered bond issuers and other banks – would be better able to adapt to imminent climate change and the risks closely associated with this. Within the Sector Comment, Moody's also refers to the significance of compliance with existing market standards, which avoids possible fragmentation of the market caused by too stringent requirements. For Moody's, the increased transparency associated with the requirements for energy efficiency is also a welcome development in the wake of the EU taxonomy. In relation to covered bond issuers, the Comment also highlights the fact that a high degree of non-compliance with requirements for energy efficiency would by implication increase refinancing costs for non-compliant assets, which would in turn have negative implications for credit risk. In principle, we share this viewpoint. Nevertheless, in many areas it will come down to the details or even data availability. Harmonisation of energy efficiency standards is also still pending in the European Community.

Conclusion

The ESG segment in the benchmark covered bond sub-market can definitely look back at an impressive period of growth. Nevertheless, it must be stated that this momentum emanates from a rather low level and demand for green bonds still significantly exceeds supply. The fact that the package of measures from Brussels has reworded the criteria must be explicitly welcomed in this context. Ultimately, the factor of “investor behaviour” must also be considered from a critical perspective. A substantial proportion of green covered bonds which do not comply with the EU Green Bond Standard could be less attractive to investors who gear their investment strategies to assets that comply with the taxonomy. In this respect, we consider it a significant current development that the criteria were broadened and believe that it is critical to the future that investor interest and the ability of covered bond institutions to issue “green” bonds are not forced to diverge through regulations. In our opinion, the factor driving growth in the green covered bonds segment predominates, meaning that we are likely to welcome new issuers and additional jurisdictions over the coming months and years. We also expect the green bonds segment to account for the larger share, but that should not mean that social or sustainability (linked) bonds have to remain a niche market.

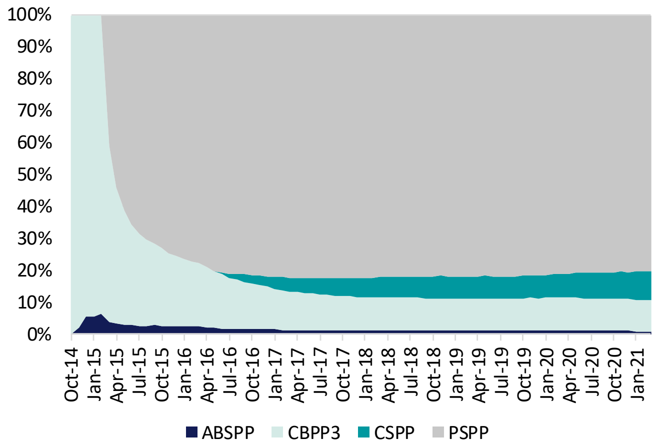
ECB tracker

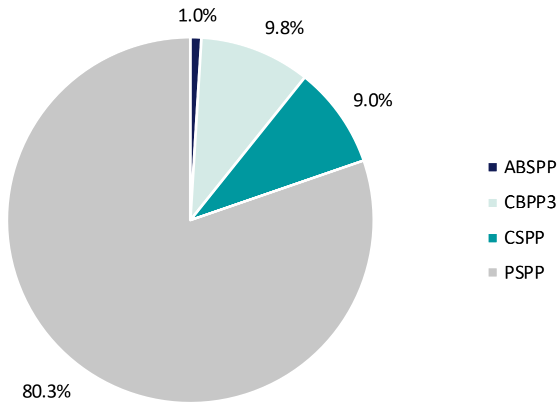
Asset Purchase Programme (APP)

Holdings (in EURm)

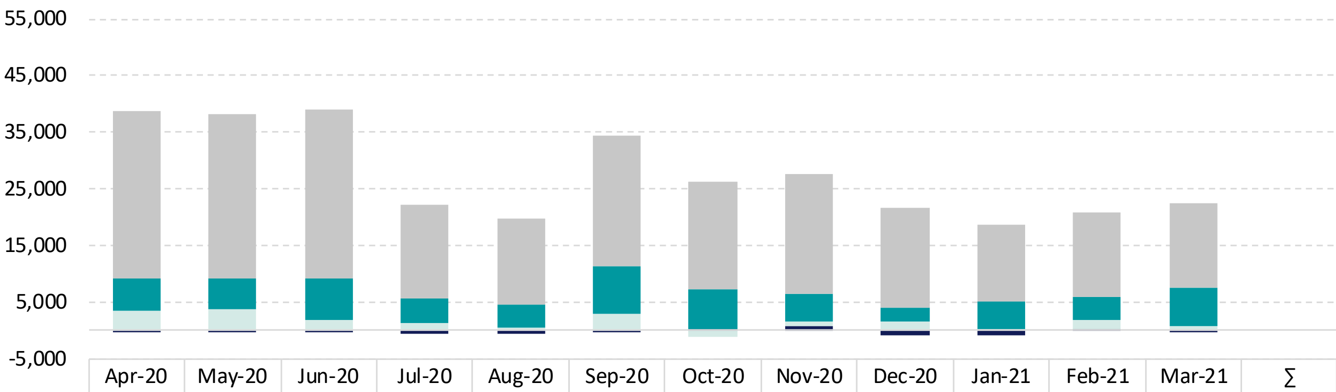
	ABSPP	CBPP3	CSPP	PSPP	APP
Feb-21	28,728	289,158	259,391	2,370,392	2,947,669
Mar-21	28,716	289,424	266,060	2,379,053	2,963,252
Δ	-12	+266	+6,669	+8,661	+15,583

Portfolio structure





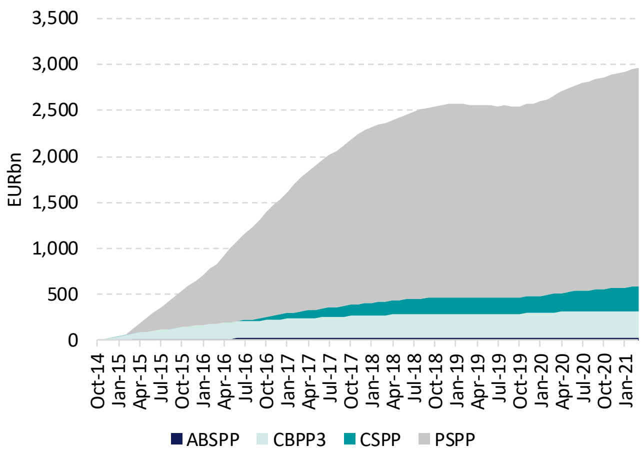
Monthly net purchases (in EURm)



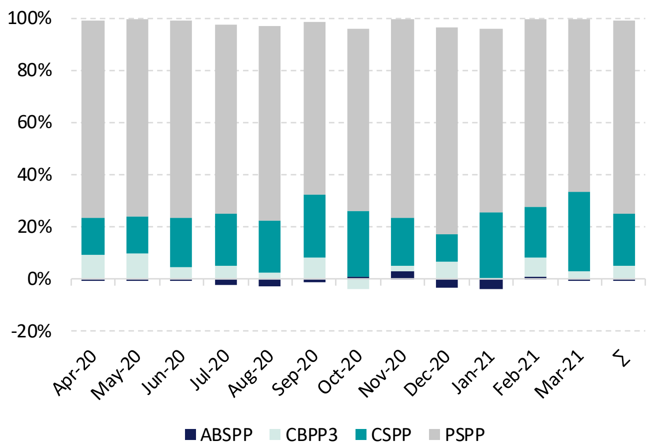
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	∑
APP	38,441	38,170	38,770	21,529	19,127	34,014	25,349	27,720	20,929	17,846	20,915	22,567	325,377
PSPP	29,624	28,961	29,779	16,370	15,150	23,102	19,182	21,241	17,822	13,655	15,129	14,955	244,970
CSPP	5,560	5,438	7,515	4,502	4,004	8,496	6,983	5,009	2,378	4,924	4,064	6,929	65,802
CBPP3	3,582	3,785	1,731	1,198	500	2,839	-1,041	646	1,529	74	1,539	684	17,066
ABSPP	-325	-14	-255	-541	-527	-423	225	824	-800	-807	183	-1	-2,461

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

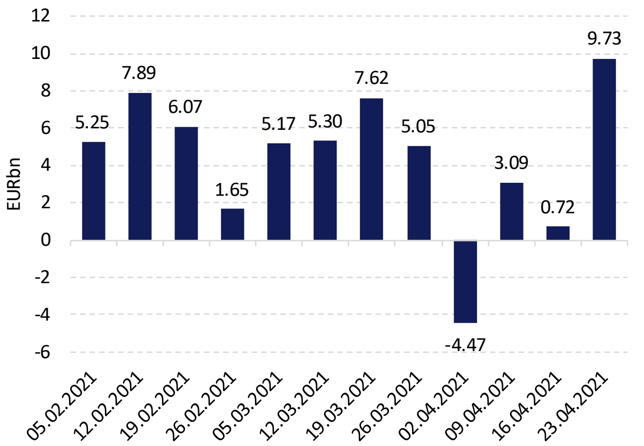
Portfolio development



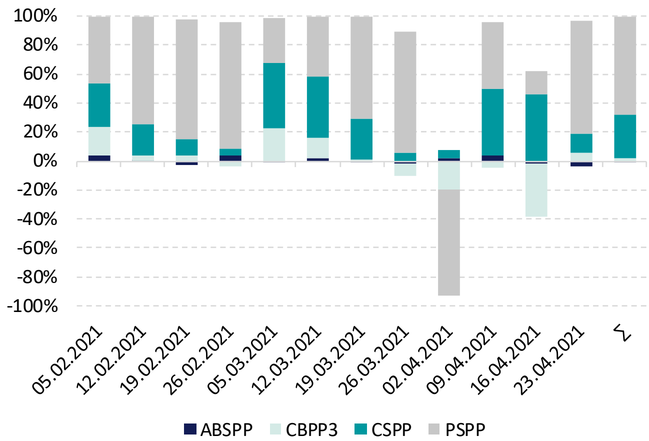
Distribution of monthly purchases



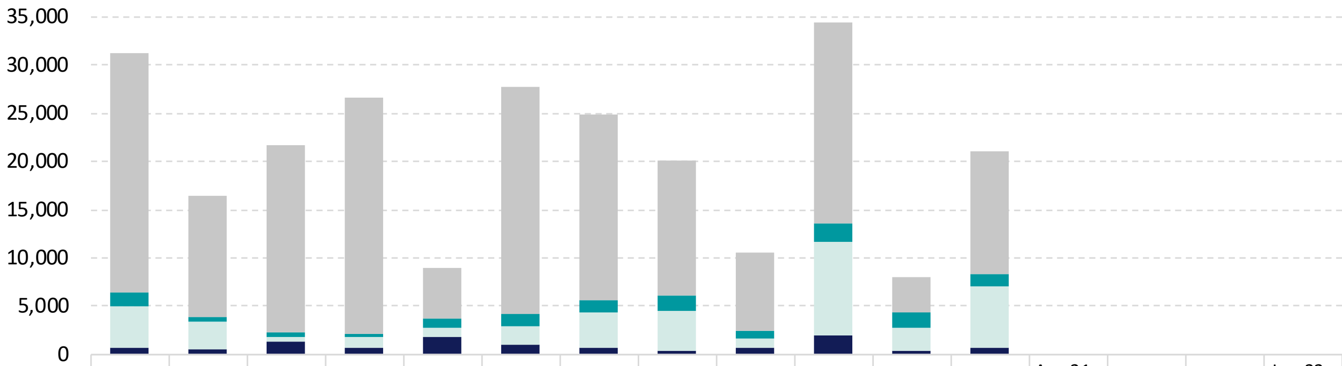
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

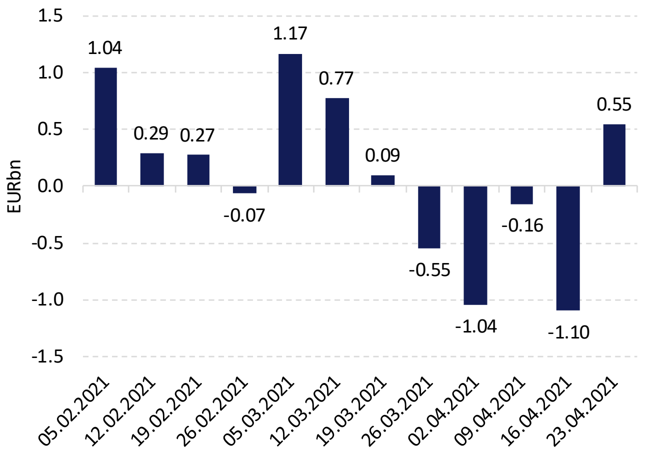


	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-21 - Mar-22	2020	2021	Jan-22 - Mar-22
APP	31,330	16,471	21,747	26,602	8,890	27,788	24,887	20,133	10,597	34,448	7,984	20,995	251,872	262,253	246,554	63,427
PSPP	24,919	12,637	19,519	24,535	5,118	23,642	19,227	13,994	8,177	20,906	3,625	12,603	188,902	201,482	189,750	37,134
CSPP	1,433	464	486	334	966	1,272	1,280	1,673	826	1,915	1,544	1,416	13,609	18,267	16,142	4,875
CBPP3	4,278	2,894	367	1,132	1,002	1,902	3,749	4,044	937	9,647	2,442	6,297	38,691	33,236	30,095	18,386
ABSPP	700	476	1,375	601	1,804	972	631	422	657	1,980	373	679	10,670	9,268	10,567	3,032

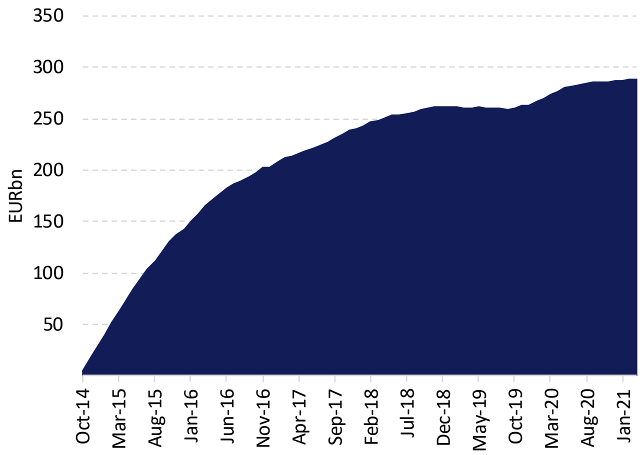
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

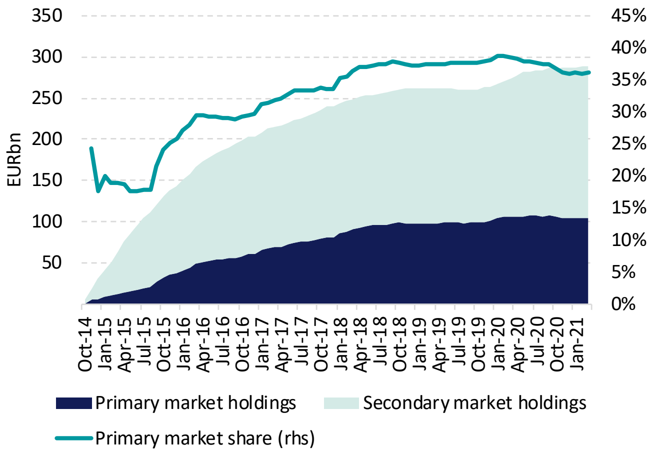
Weekly purchases



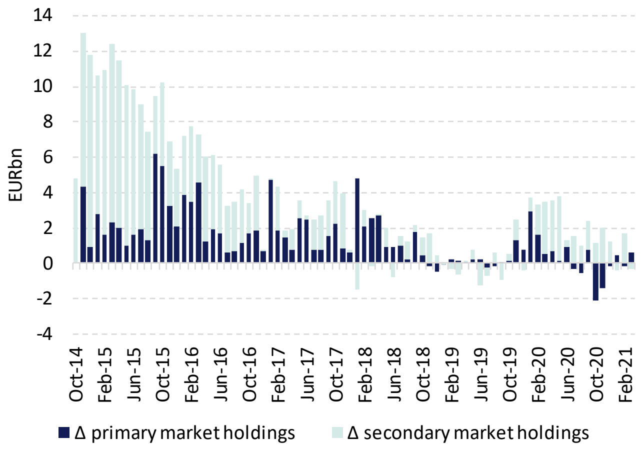
Development of CBPP3 volume



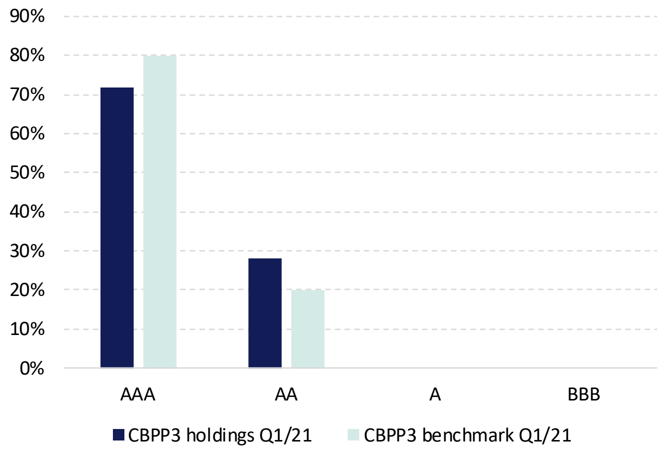
Primary and secondary market holdings



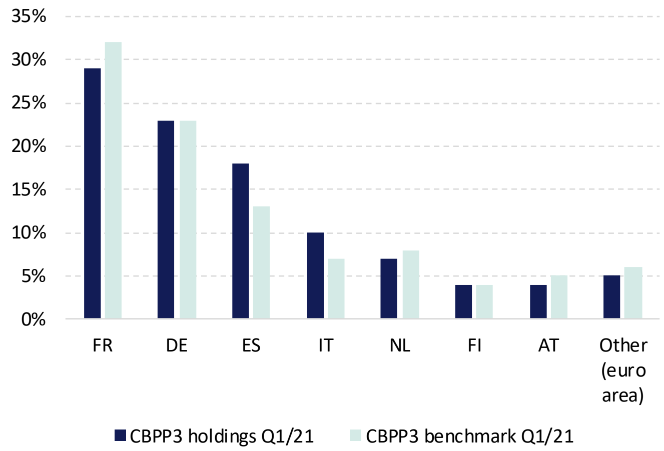
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



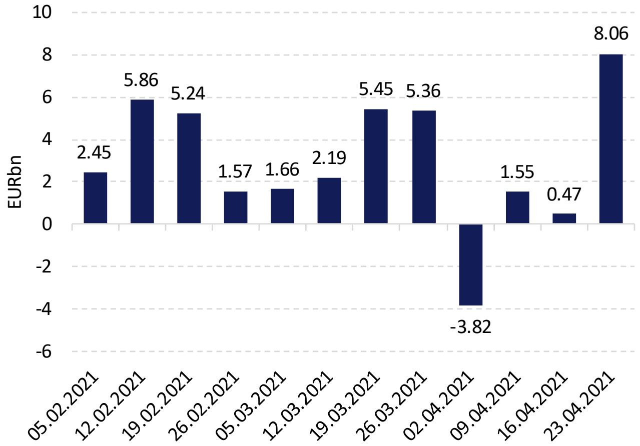
Distribution of CBPP3 by country of risk



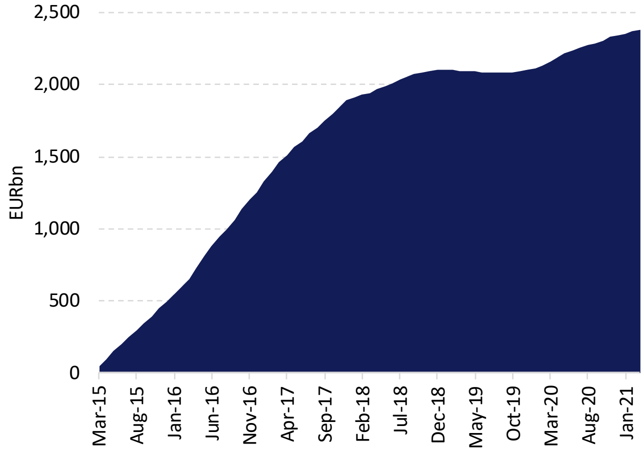
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



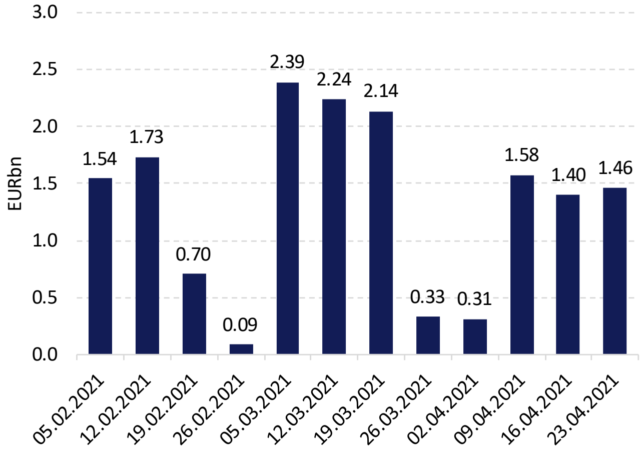
Overall distribution of PSPP buying at month-end

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%	69,985	67,711	2,274	7.5	7.6	-0.1
BE	3.4%	88,296	84,283	4,013	8.0	10.2	-2.2
CY	0.2%	3,524	4,978	-1,454	9.9	8.8	1.1
DE	24.3%	592,995	609,844	-16,849	6.6	7.6	-1.0
EE	0.3%	351	6,517	-6,166	9.2	7.5	1.7
ES	11.0%	293,850	275,863	17,987	8.0	8.4	-0.4
FI	1.7%	37,236	42,494	-5,258	6.9	7.7	-0.8
FR	18.8%	494,798	472,494	22,304	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	38,563	39,174	-611	8.5	10.1	-1.6
IT	15.7%	421,580	393,011	28,569	7.1	7.9	-0.8
LT	0.5%	4,793	13,389	-8,596	10.2	10.6	-0.4
LU	0.3%	3,230	7,620	-4,390	5.6	7.2	-1.7
LV	0.4%	2,706	9,014	-6,308	11.3	10.4	0.9
MT	0.1%	1,226	2,426	-1,200	9.5	9.2	0.3
NL	5.4%	120,754	135,575	-14,821	7.7	9.0	-1.4
PT	2.2%	47,379	54,145	-6,766	7.0	7.2	-0.2
SI	0.4%	9,204	11,139	-1,935	9.9	10.2	-0.3
SK	1.1%	15,190	26,494	-11,304	8.2	8.3	-0.1
SNAT	10.0%	261,198	250,686	10,512	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,506,856**	**2,506,856**	**0**	**7.3**	**8.2**	**-0.9**

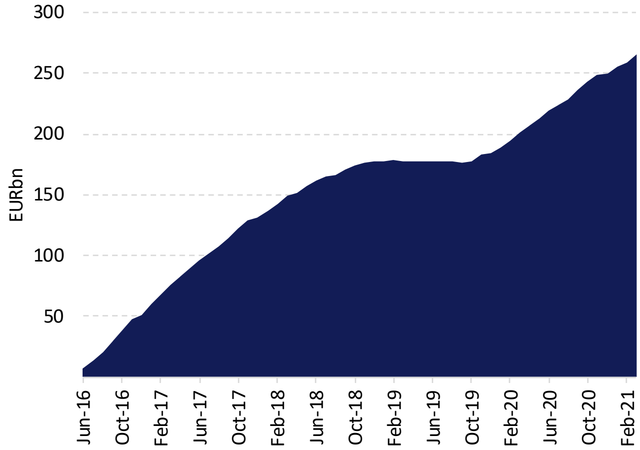
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

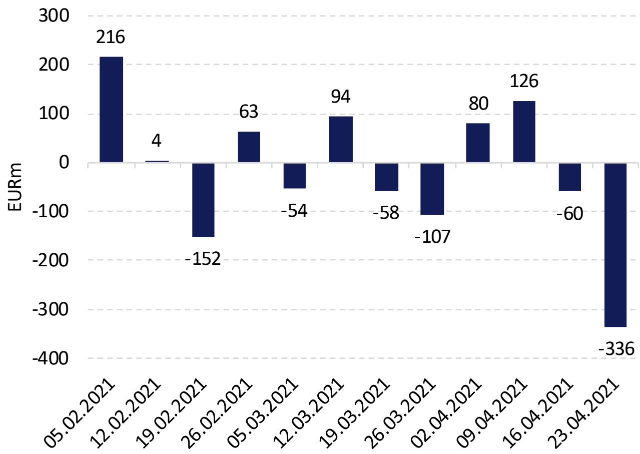


Development of CSPP volume

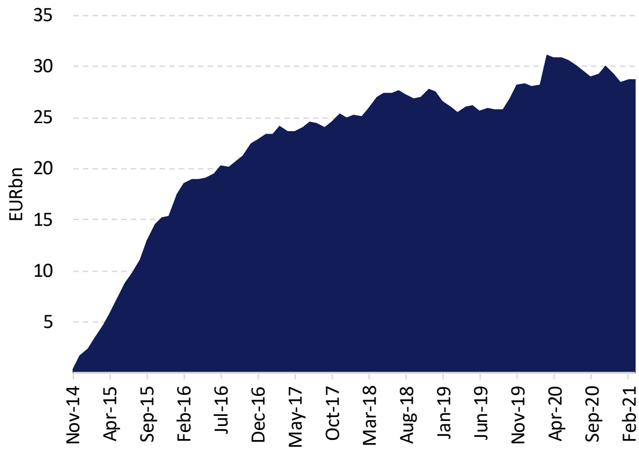


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



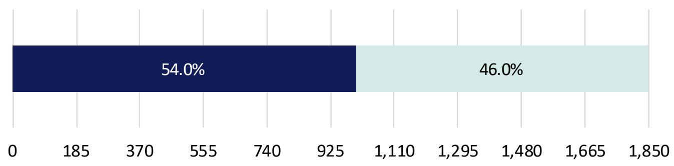
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Feb-21	870,126
Mar-21	943,647
Δ	+73,521

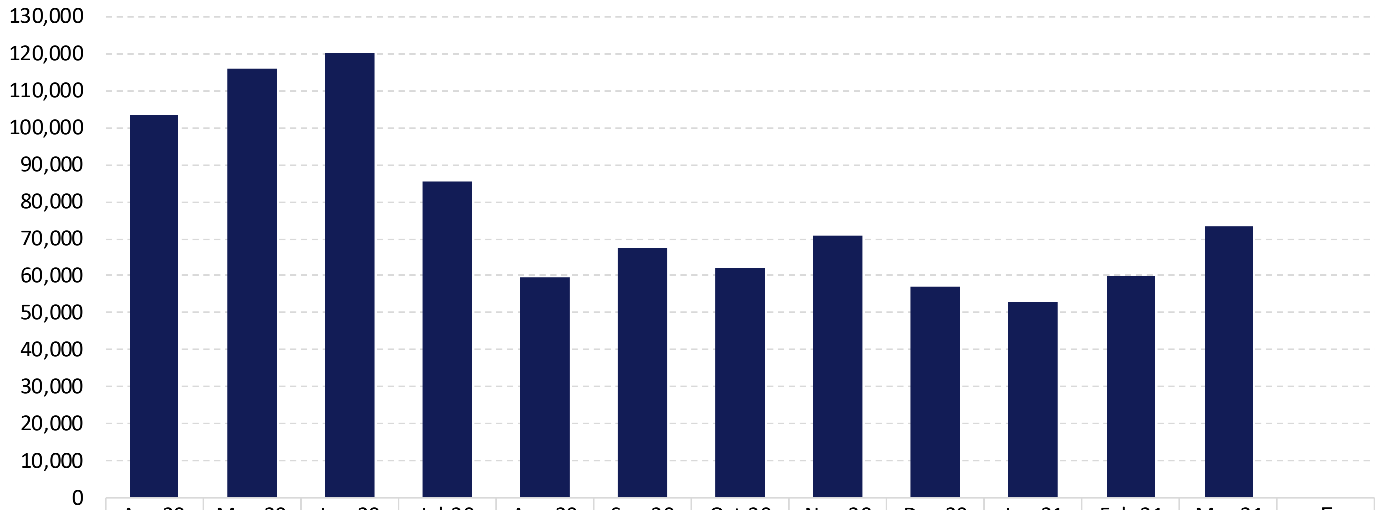
Volume already invested (in EURbn)



Estimated portfolio development

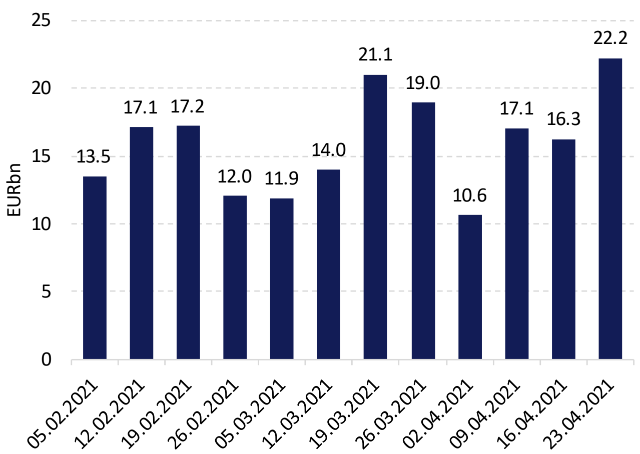
Assumed pace of purchases	Weekly net purchase volume	PEPP limit hit in ...
Average weekly net purchase volume so far	EUR 17.8bn	48 weeks (25.03.2022)

Monthly net purchases (in EURm)

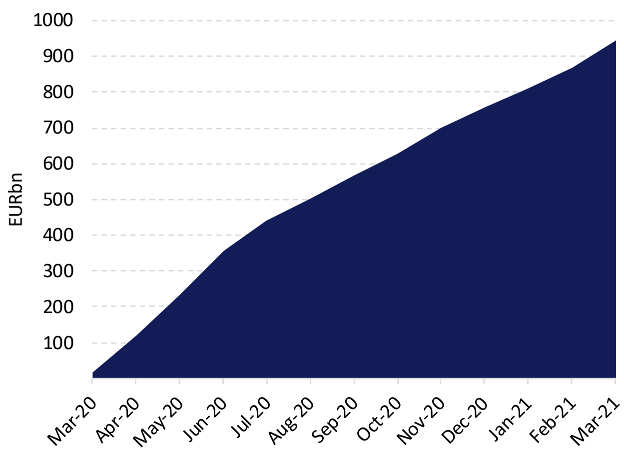


	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	∑
PEPP	103,366	115,855	120,321	85,423	59,466	67,308	61,985	70,835	57,163	53,046	59,914	73,521	928,203

Weekly purchases



Development of PEPP volume

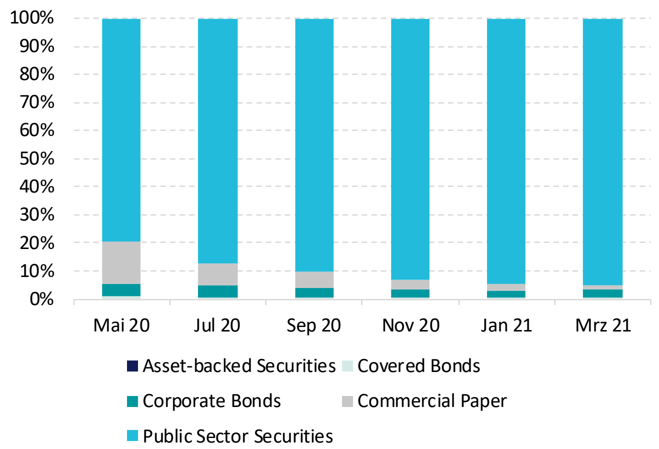


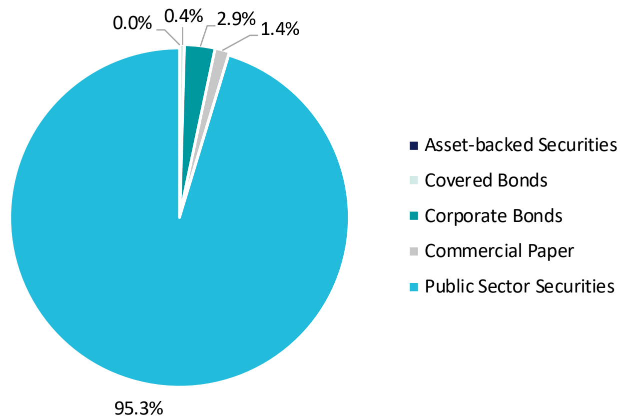
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

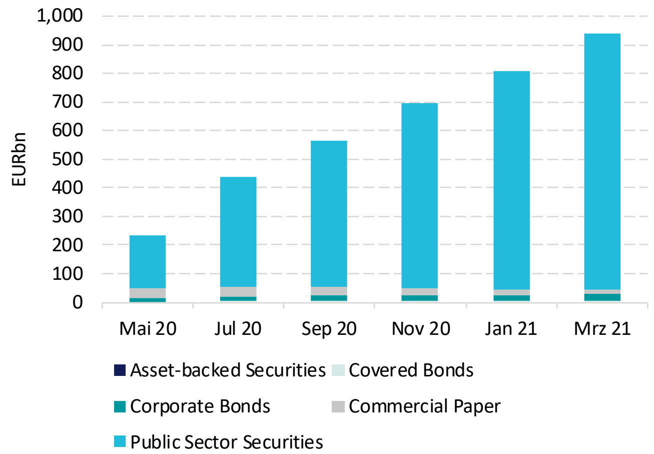
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jan-21	0	3,120	22,315	16,611	764,710	806,756
Mar-21	0	4,055	27,058	12,766	893,844	937,723
Δ	0	+935	+4,743	-3,845	+129,134	+130,967

Portfolio structure

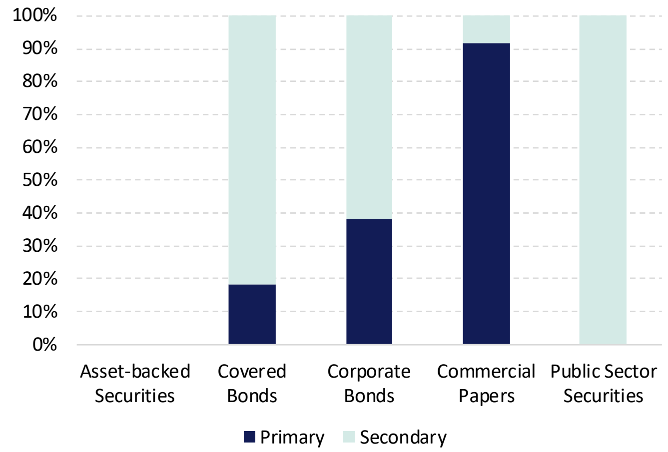




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP as of March 2021

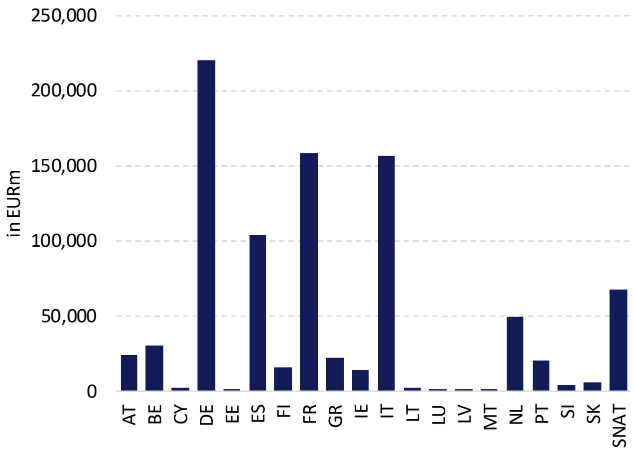
	Asset-backed securities		Covered bonds		Corporate bonds		Commercial papers	
	Primary	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**	**Primary**	**Secondary**
Holdings in EURm	0	0	745	3,310	10,333	16,725	11,716	1,050
Share	0.0%	0.0%	18.4%	81.6%	38.2%	61.8%	91.8%	8.2%

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

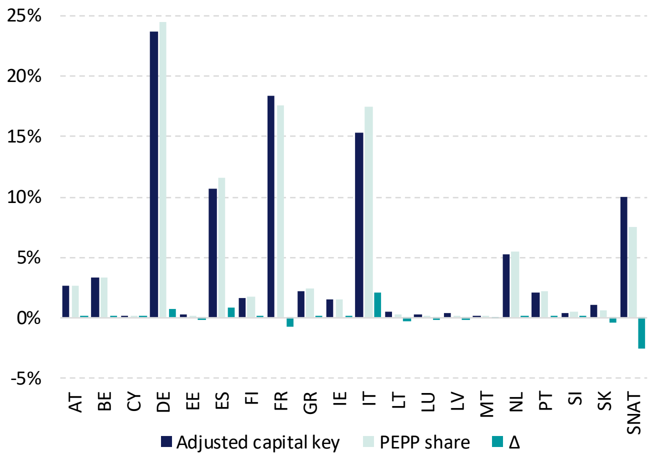
Breakdown of public sector securities under the PEPP

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	24,225	2.6%	2.7%	0.1%	9.7	7.0	2.7
BE	30,478	3.3%	3.4%	0.1%	6.7	9.3	-2.6
CY	1,899	0.2%	0.2%	0.0%	10.1	8.4	1.7
DE	220,519	23.7%	24.5%	0.8%	5.6	6.7	-1.1
EE	255	0.3%	0.0%	-0.2%	8.8	7.5	1.4
ES	104,227	10.7%	11.6%	0.9%	8.4	7.5	0.9
FI	15,347	1.7%	1.7%	0.1%	7.2	7.1	0.1
FR	158,231	18.4%	17.6%	-0.8%	8.4	7.5	0.9
GR	21,936	2.2%	2.4%	0.2%	8.8	10.1	-1.3
IE	14,162	1.5%	1.6%	0.0%	9.0	9.4	-0.4
IT	156,819	15.3%	17.4%	2.1%	6.8	7.0	-0.2
LT	2,365	0.5%	0.3%	-0.3%	11.5	10.2	1.3
LU	1,371	0.3%	0.2%	-0.1%	6.6	6.7	-0.2
LV	1,105	0.4%	0.1%	-0.2%	9.7	9.9	-0.3
MT	290	0.1%	0.0%	-0.1%	7.7	8.1	-0.4
NL	49,023	5.3%	5.4%	0.2%	5.1	7.9	-2.8
PT	20,126	2.1%	2.2%	0.1%	6.7	6.8	-0.1
SI	4,224	0.4%	0.5%	0.0%	9.6	9.5	0.1
SK	5,892	1.0%	0.7%	-0.4%	8.8	8.3	0.6
SNAT	67,236	10.0%	7.5%	-2.5%	10.3	8.2	2.1
Total / Avg.	**899,731**	**100.0%**	**100.0%**	**0.0%**	**7.3**	**7.4**	**0.0**

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



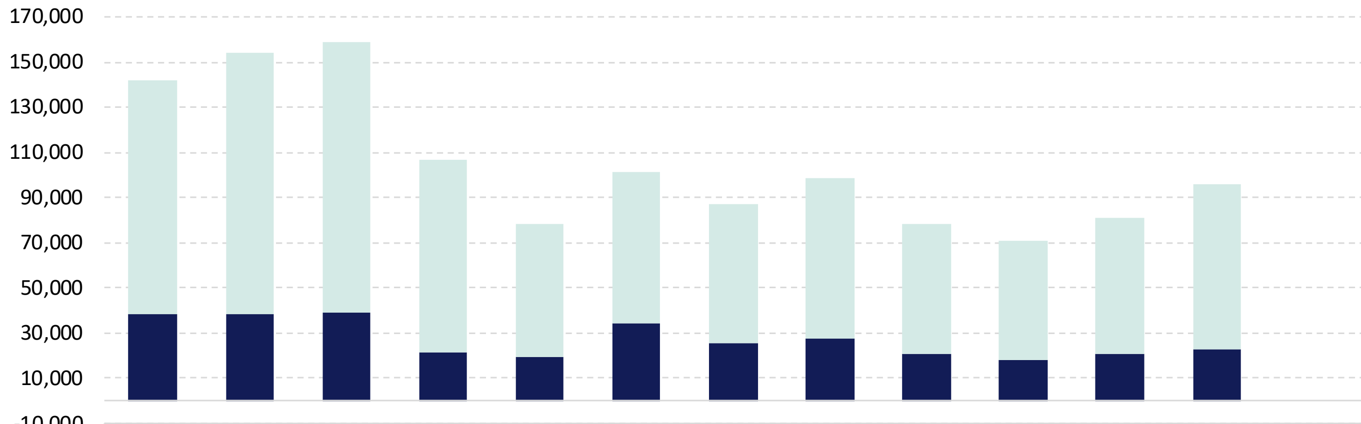
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

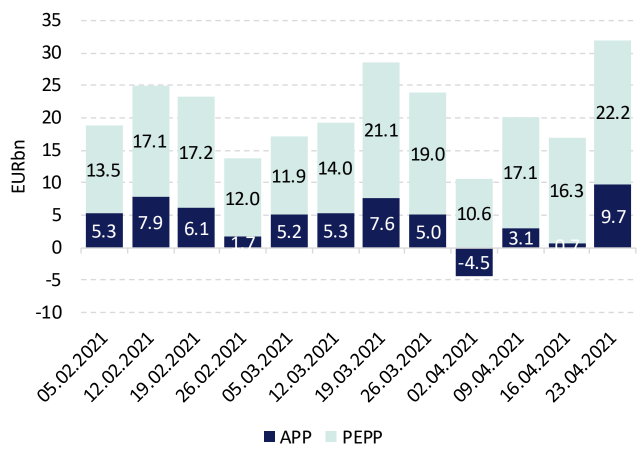
	APP	PEPP	APP & PEPP
Feb-21	2,947,669	870,126	3,817,795
Mar-21	2,963,252	943,647	3,906,899
Δ	+15,583	+73,521	+89,104

Monthly net purchases (in EURm)

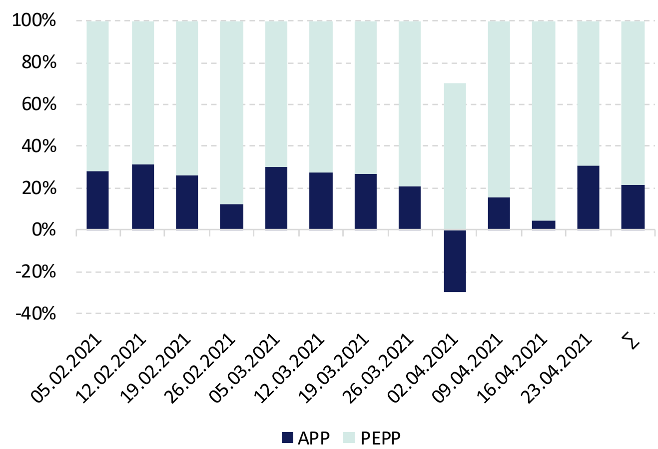


	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	∑
∑	141,807	154,025	159,091	106,952	78,593	101,322	87,334	98,555	78,092	70,892	80,829	96,088	1,253,58
PEPP	103,366	115,855	120,321	85,423	59,466	67,308	61,985	70,835	57,163	53,046	59,914	73,521	928,203
APP	38,441	38,170	38,770	21,529	19,127	34,014	25,349	27,720	20,929	17,846	20,915	22,567	325,377

Weekly purchases



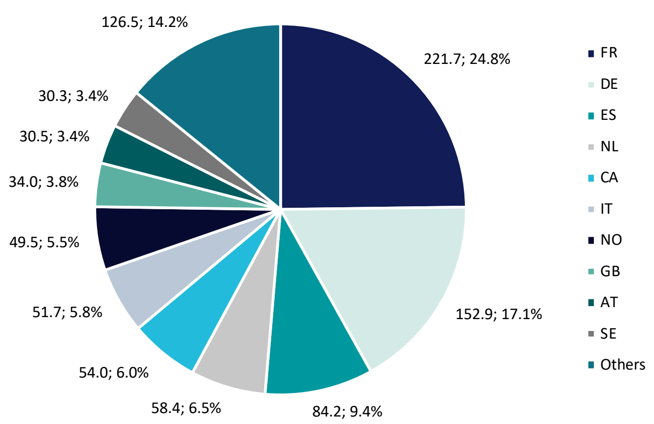
Distribution of weekly purchases



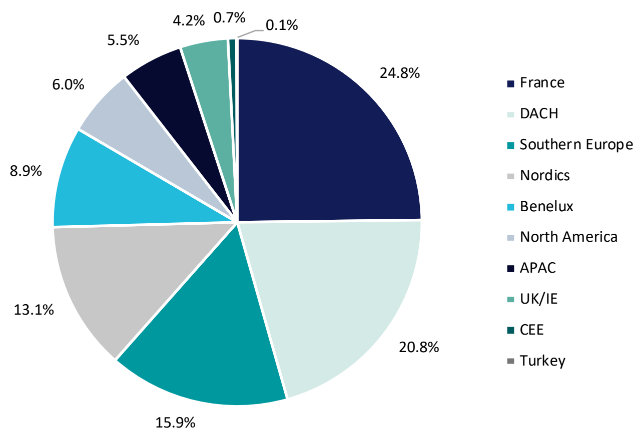
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



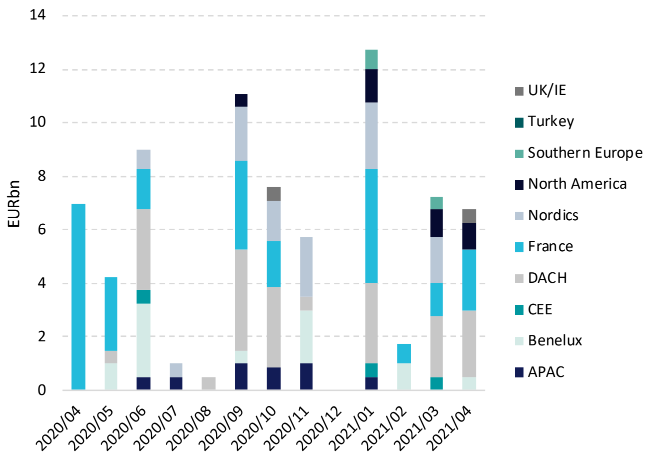
EUR benchmark volume by region (in EURbn)



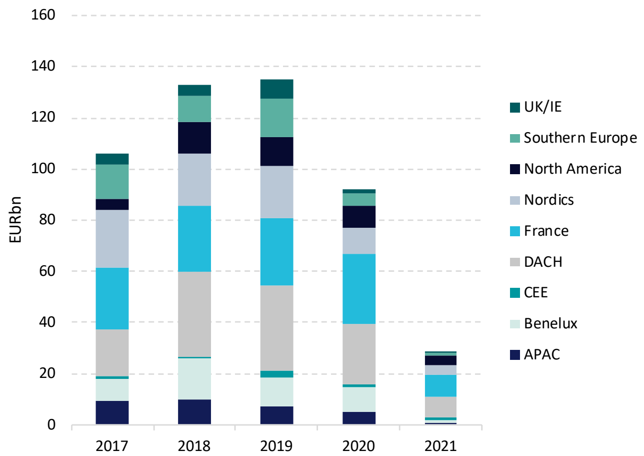
Top-10 jurisdictions

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	221.7	205	8	0.95	10.2	5.6	1.11
2	DE	152.9	228	13	0.60	8.3	4.8	0.44
3	ES	84.2	69	3	1.13	11.2	3.9	1.77
4	NL	58.4	59	0	0.93	11.2	7.4	0.90
5	CA	54.0	47	0	1.12	6.1	3.2	0.27
6	IT	51.7	60	1	0.83	9.1	4.3	1.41
7	NO	49.5	55	7	0.90	7.3	3.9	0.53
8	GB	34.0	40	0	0.88	8.5	3.6	1.02
9	AT	30.5	56	1	0.54	9.7	6.2	0.66
10	SE	30.3	36	0	0.84	7.5	3.5	0.47

EUR benchmark issue volume by month

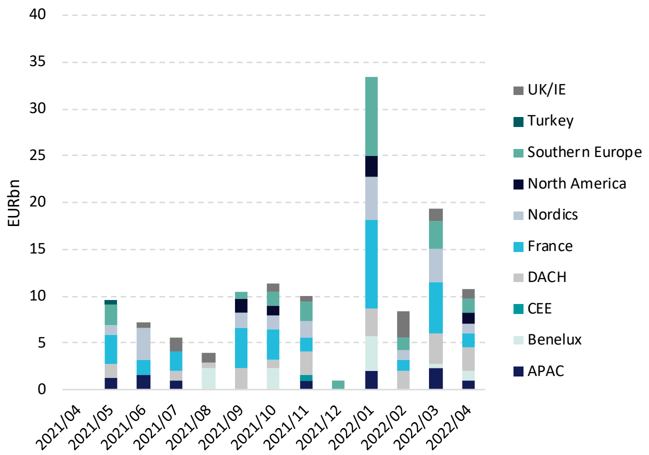


EUR benchmark issue volume by year

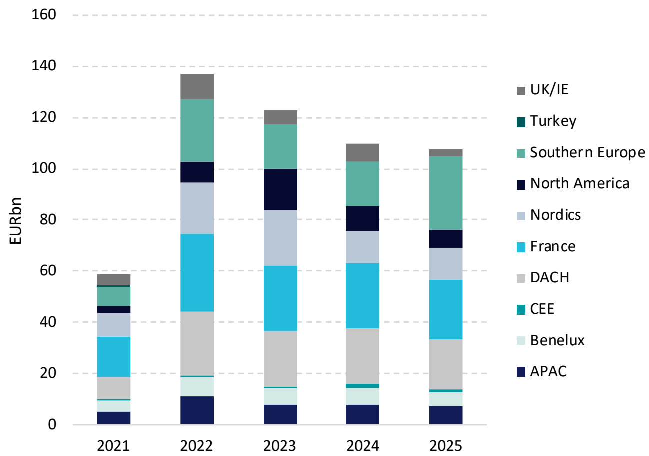


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

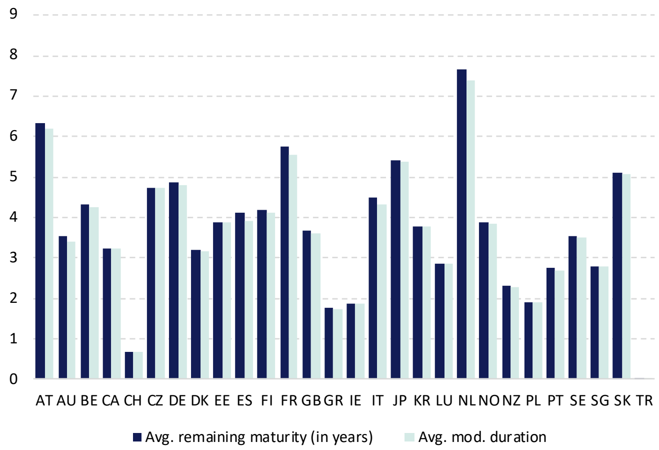
EUR benchmark maturities by month



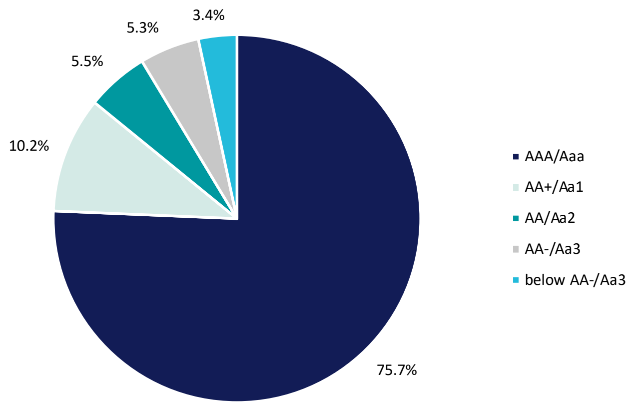
EUR benchmark maturities by year



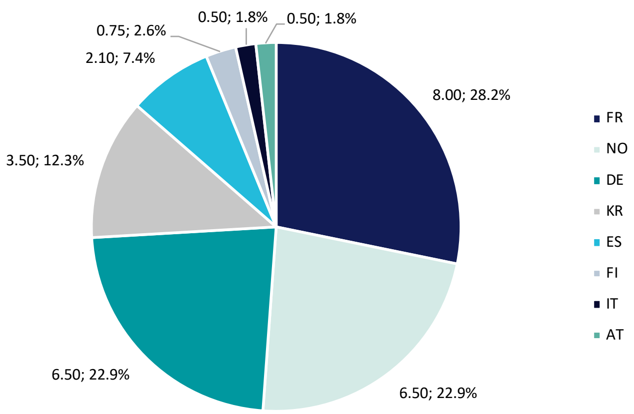
Modified duration and time to maturity by country



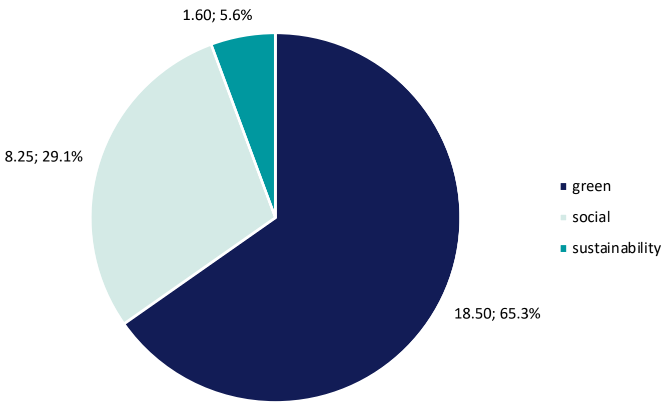
Rating distribution (volume weighted)



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

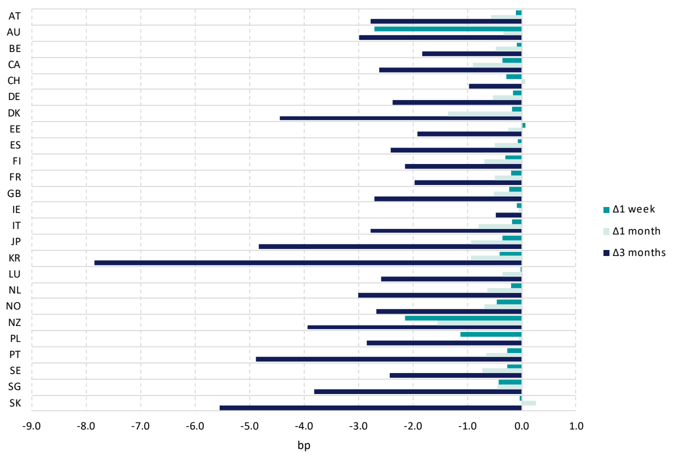


EUR benchmark volume (ESG) by type (in EURbn)

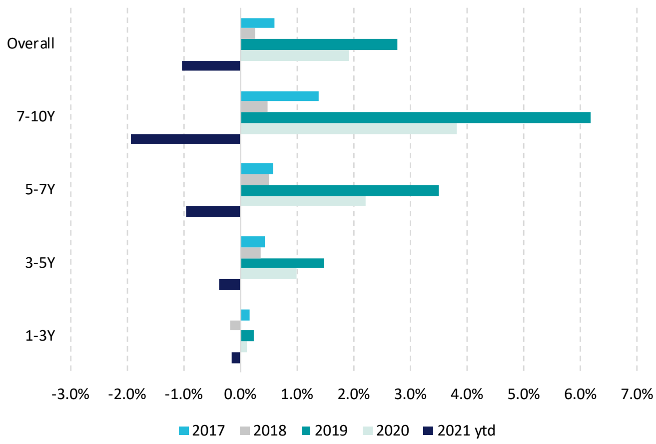


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

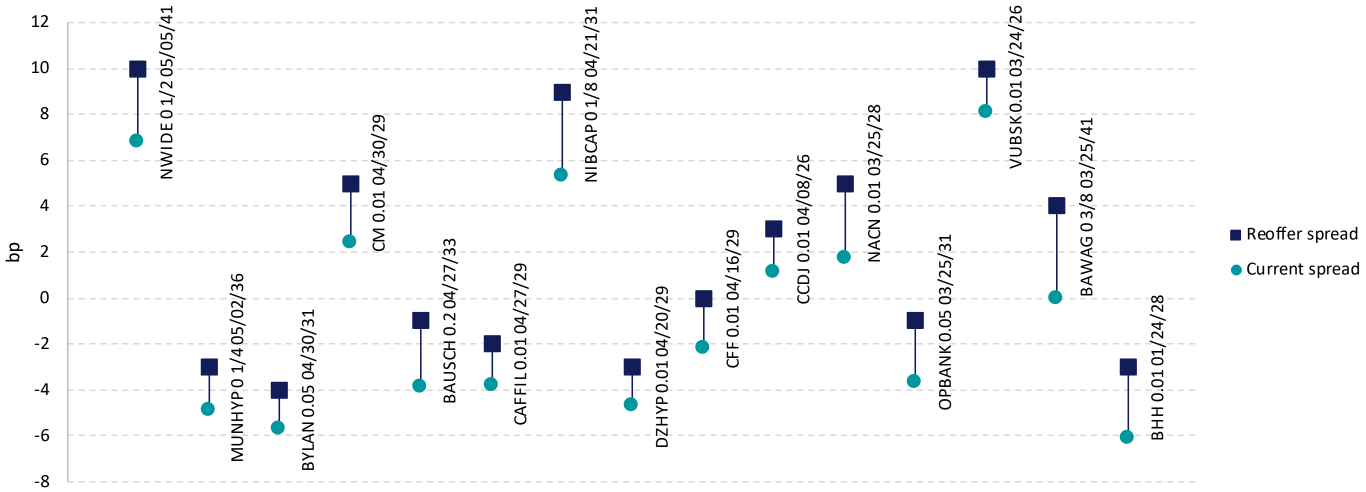
Spread development by country



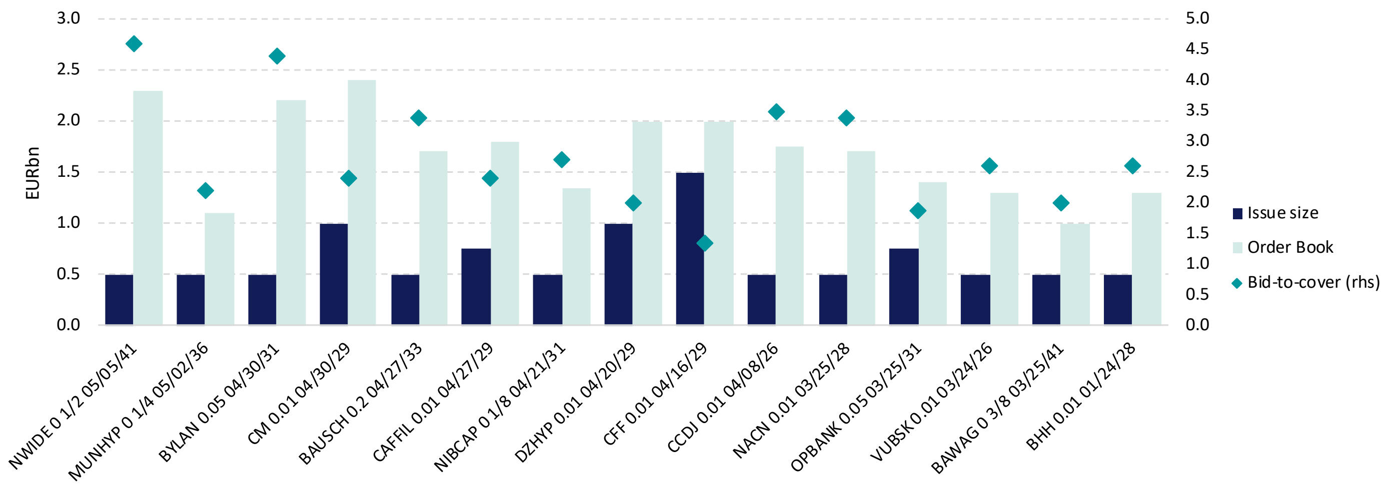
Covered bond performance (Total return)



Spread development (last 15 issues)



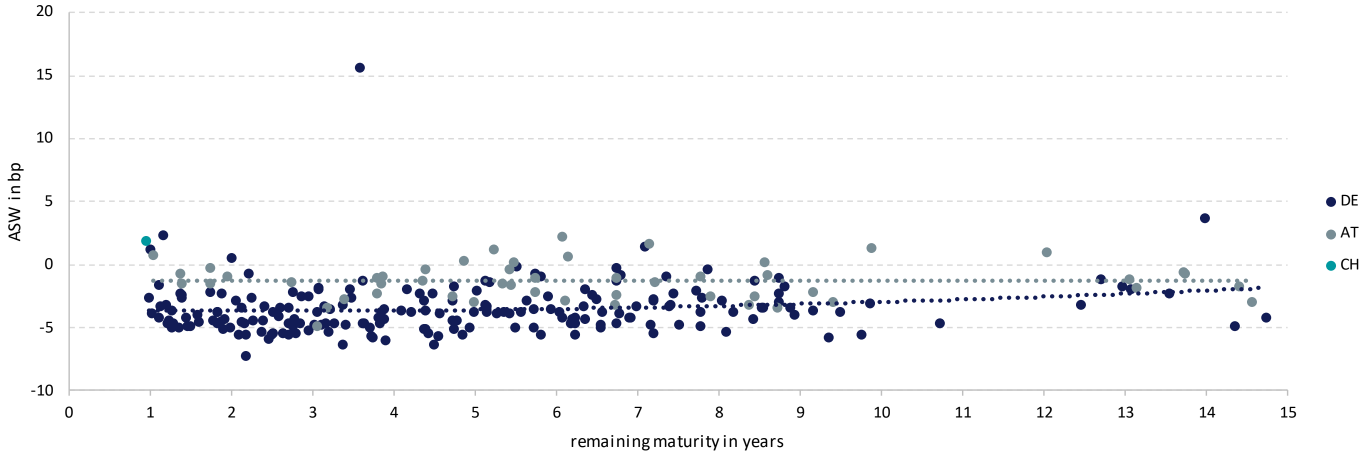
Order books (last 15 issues)



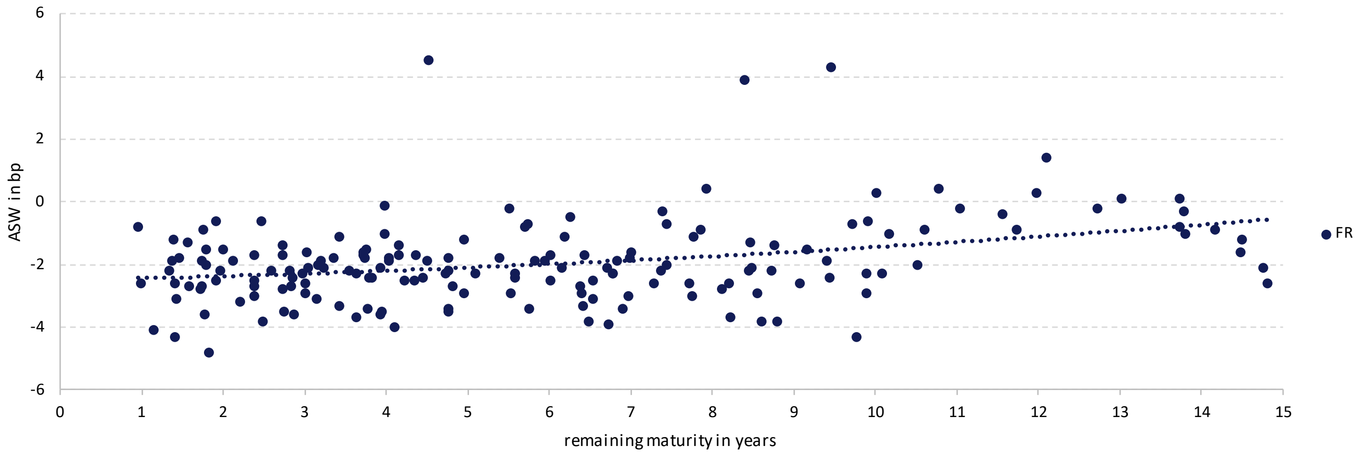
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Spread overview[1]

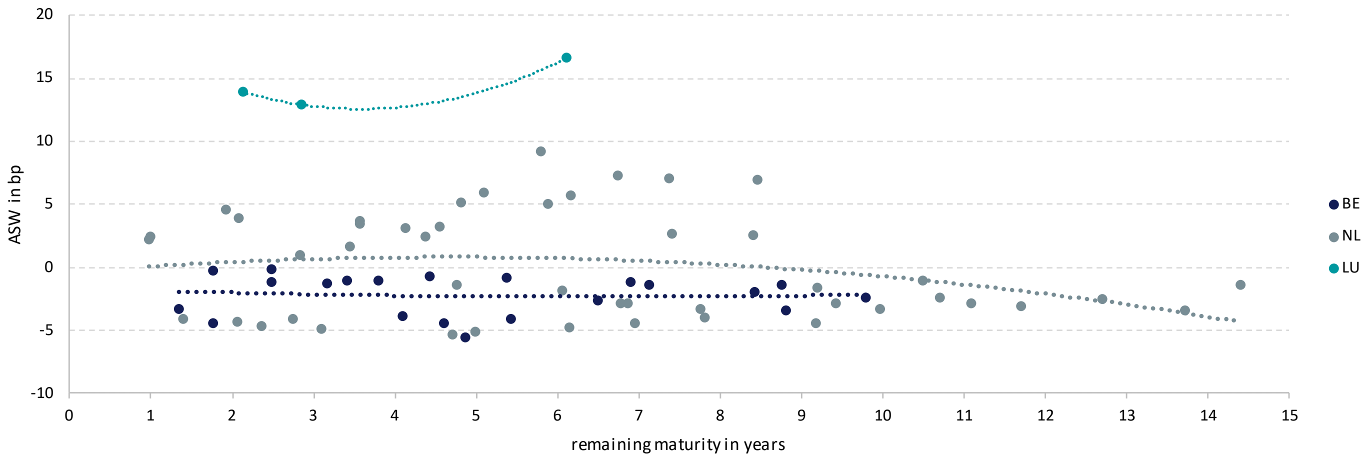
DACH



France

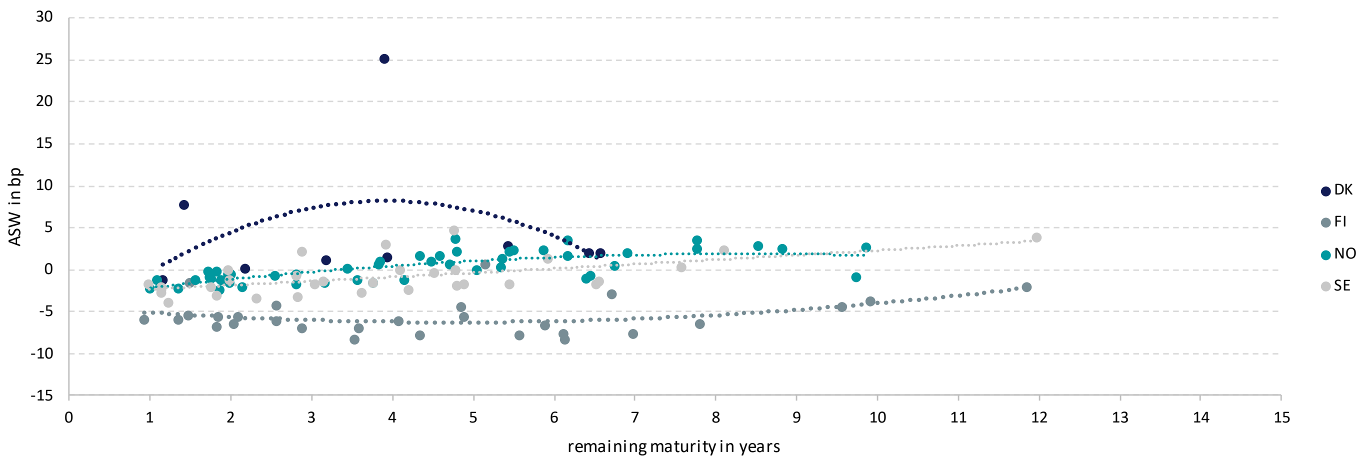


Benelux

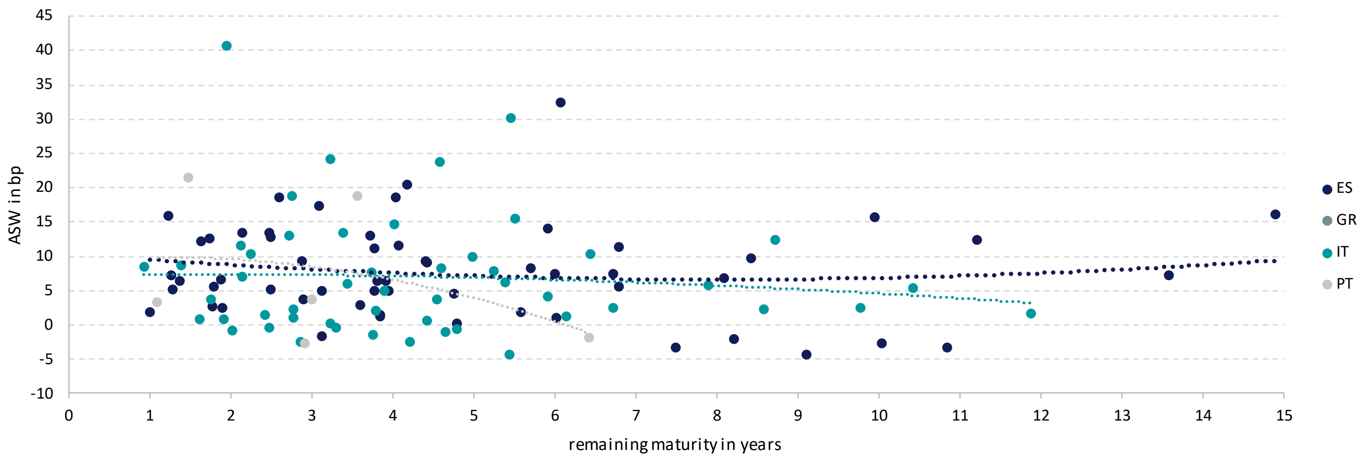


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

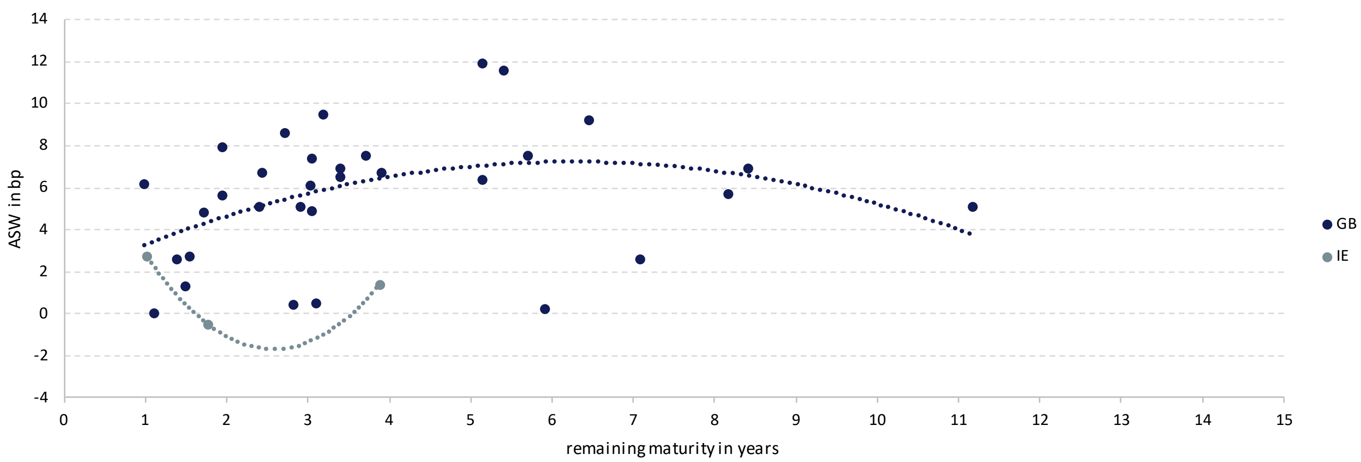
Nordics



Southern Europe

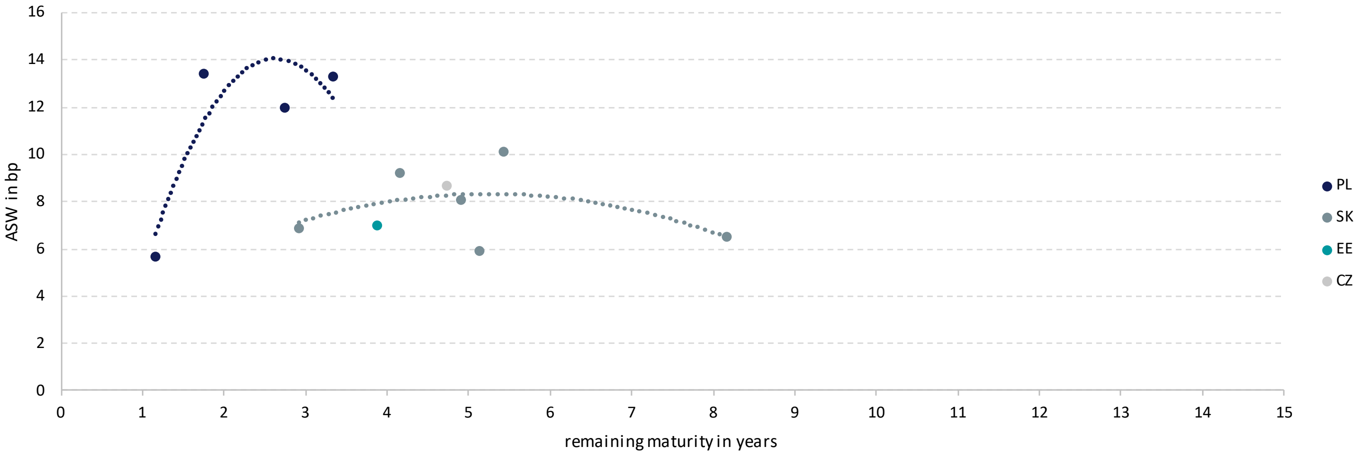


UK/IE

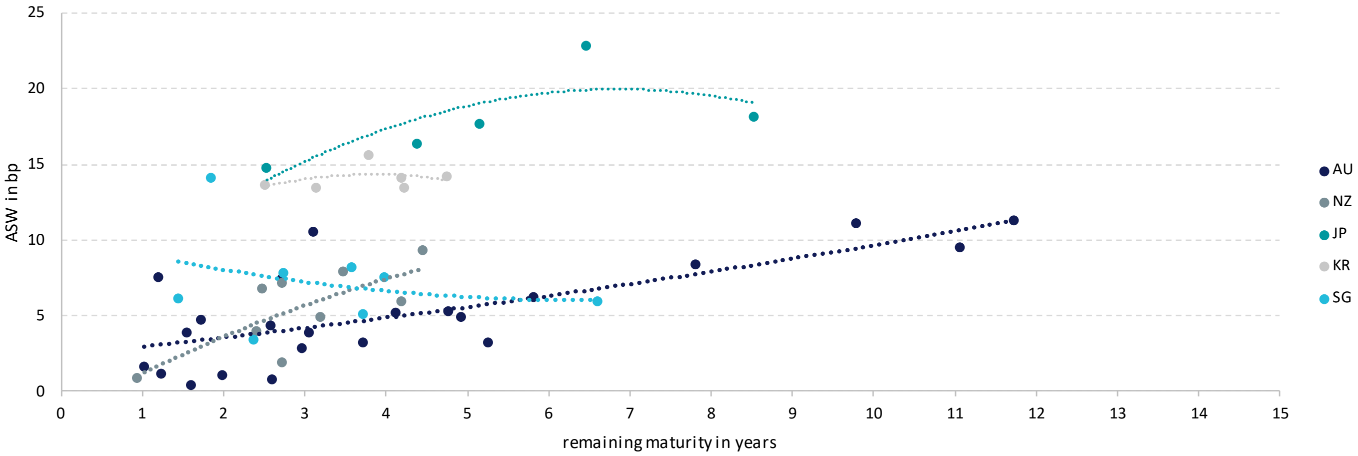


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

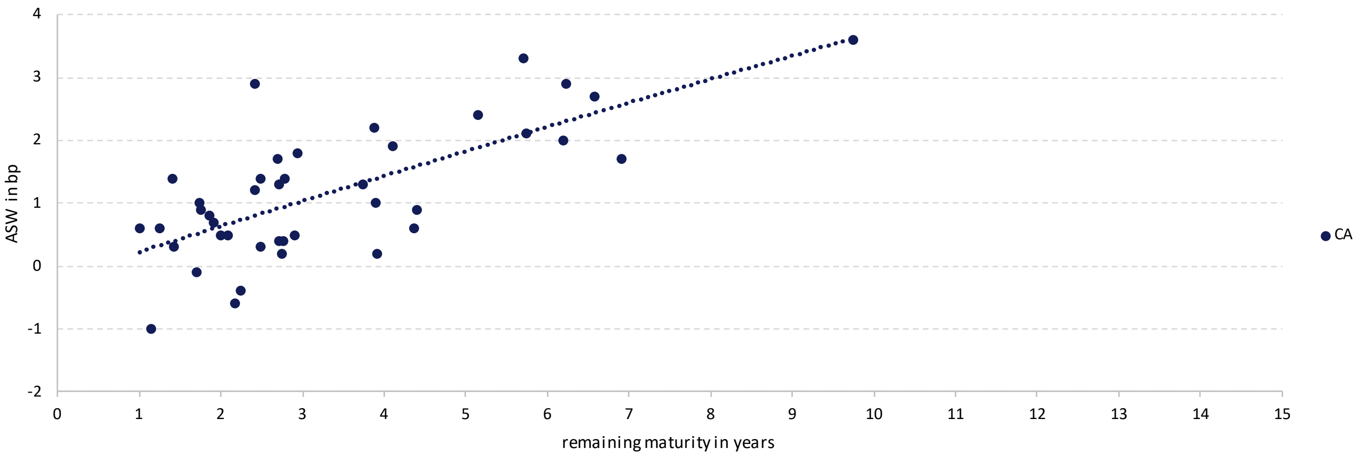
CEE



APAC



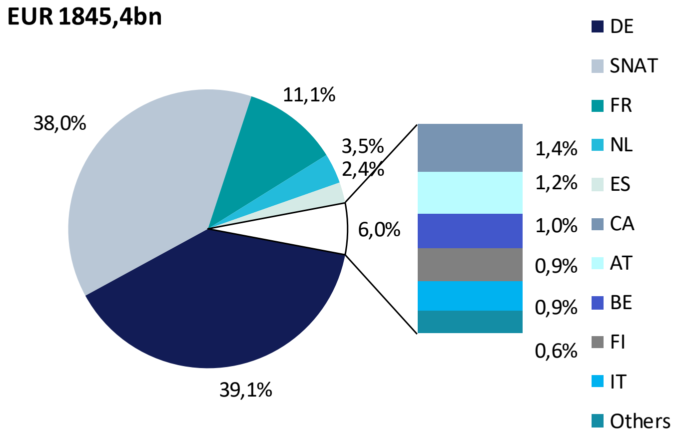
North America



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

Charts & Figures
SSA/Public Issuers

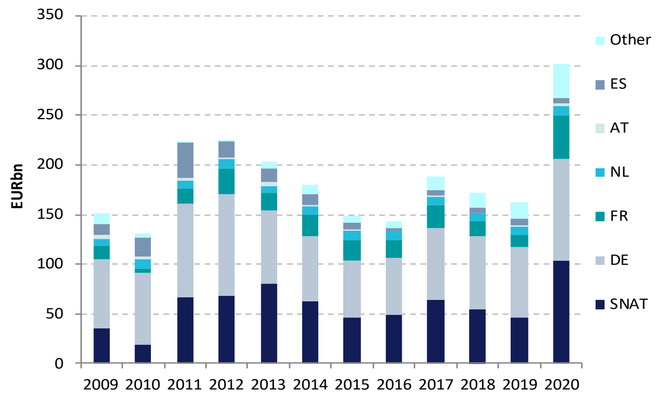
Outstanding volume (bmk)



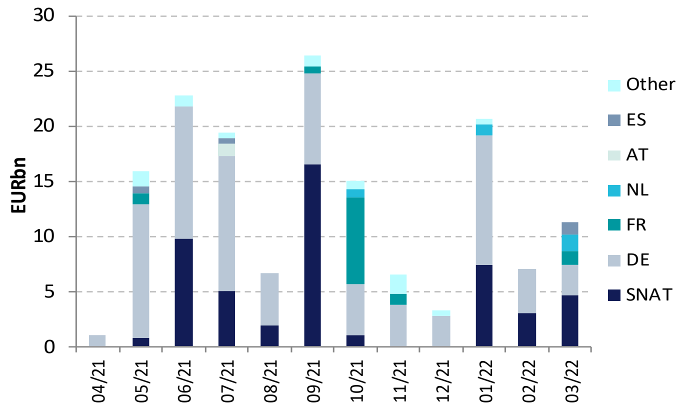
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
DE	720,9	560	1,3	6,7
SNAT	701,2	187	3,7	8,2
FR	204,5	140	1,5	5,5
NL	64,4	65	1,0	6,7
ES	44,4	54	0,8	5,4
CA	25,0	18	1,4	5,3
AT	21,8	23	0,9	5,2
BE	18,7	22	0,9	15,0
FI	17,0	22	0,8	6,0
IT	15,8	20	0,8	5,8

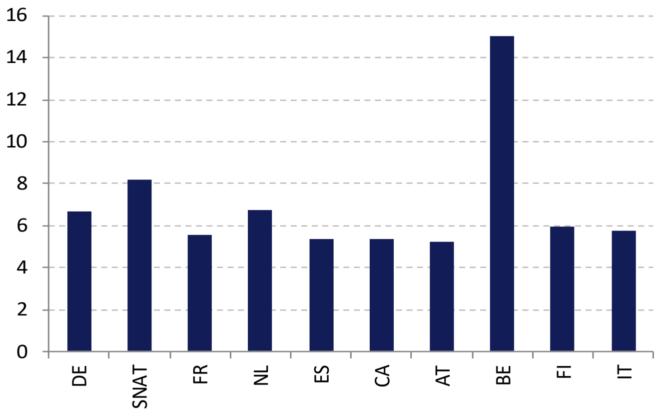
Issue volume by year (bmk)



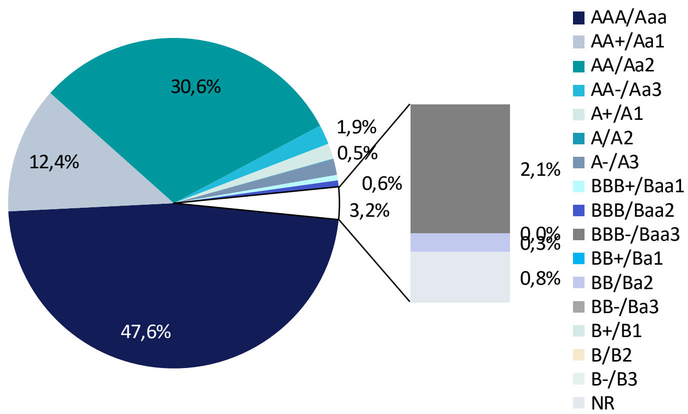
Maturities next 12 months (bmk)



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

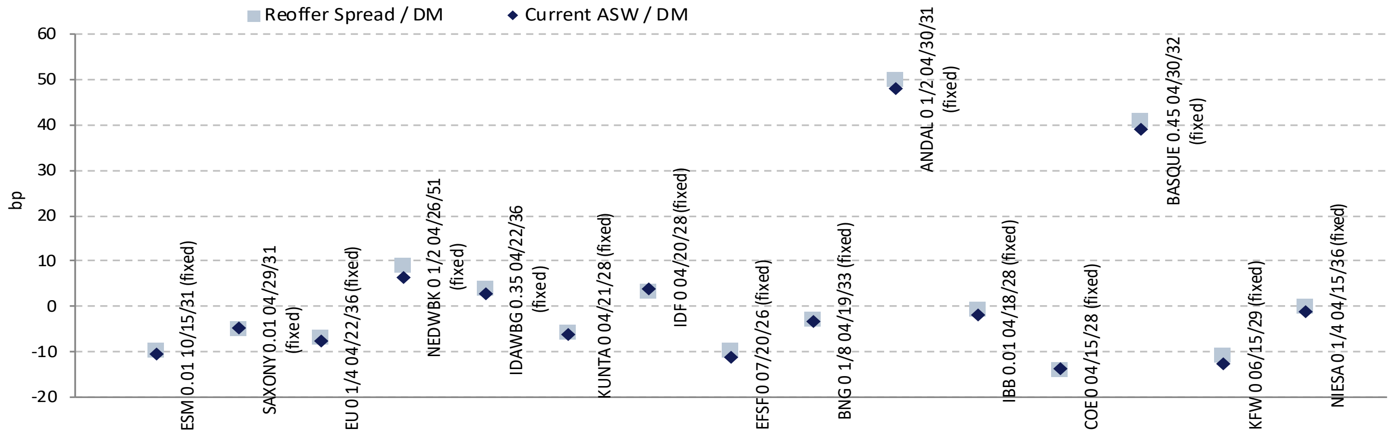


Rating distribution (vol. weighted)

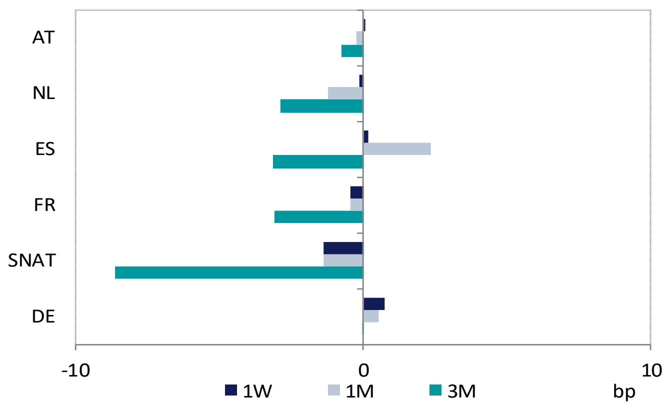


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

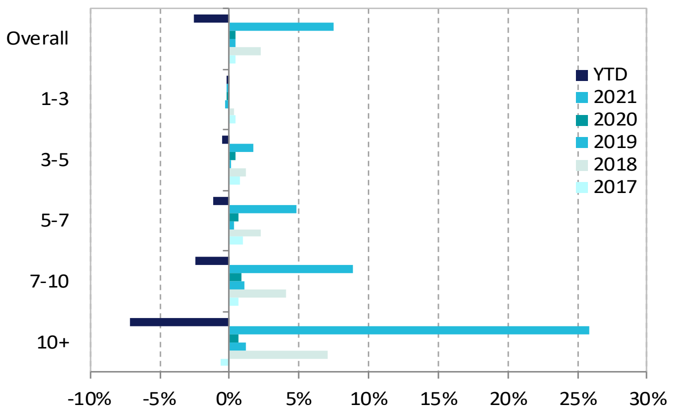
Spread development (last 15 issues)



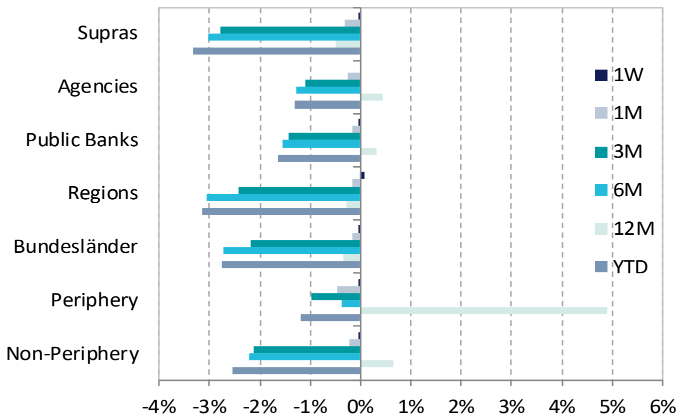
Spread development by country



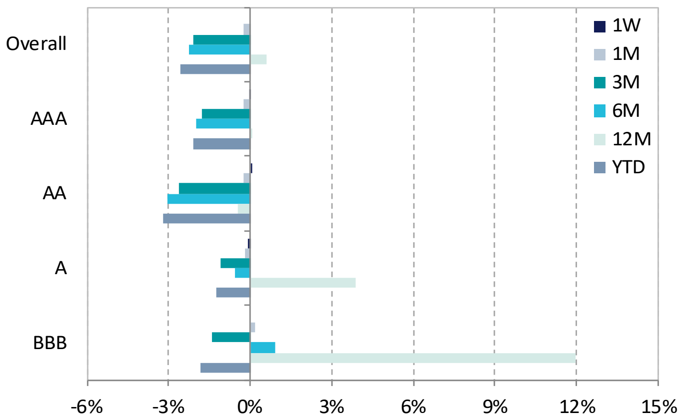
Performance (total return)



Performance (total return) by regions

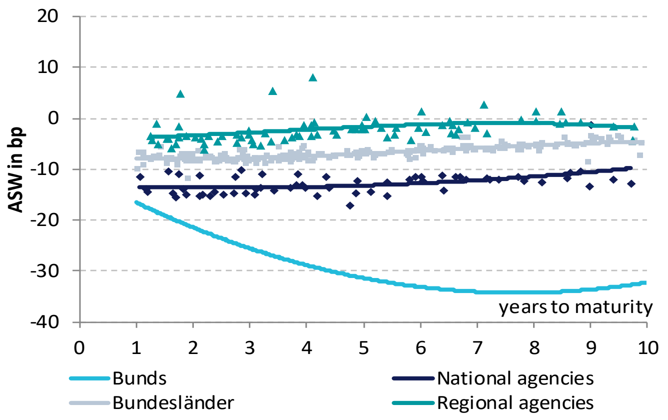


Performance (total return) by rating

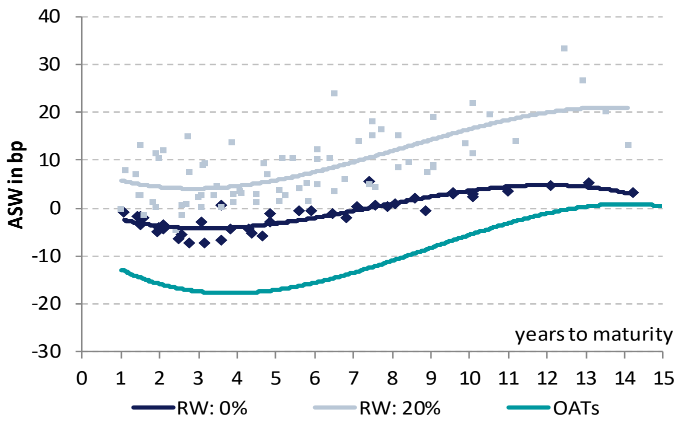


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

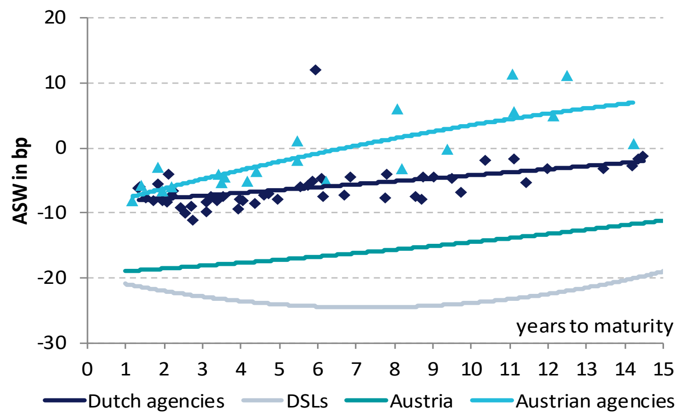
Germany (by segments)



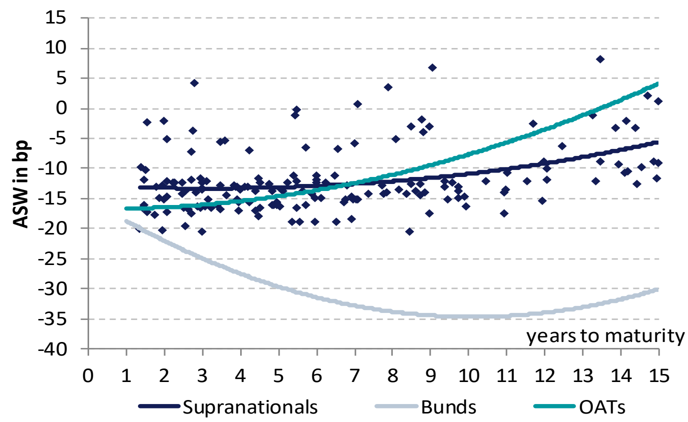
France (by risk weight)



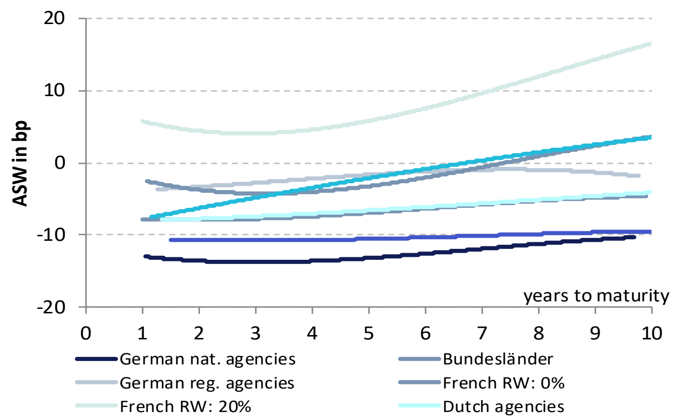
Netherlands & Austria



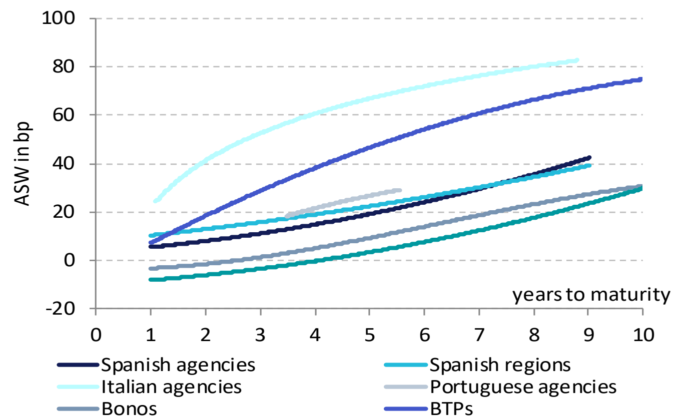
Supranationals



Core



Periphery



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

Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
14/2021 ♦ 22 April	▪ LCR levels and risk weights of EUR benchmarks ▪ NextGenerationEU: NGEU is taking shape
13/2021 ♦ 14 April	▪ Predominant ECB strategy: wait-and-see but remain proactive ▪ PEPP reporting: First year done; a second (at least) now follows ▪ OSFI abandons temporarily increased 10% limit with immediate effect: (in)direct implications for Canadian benchmarks
12/2021 ♦ 31 March	▪ Unusual Q1 and revised supply forecast for 2021 ▪ Collective Action Clauses (CACs)
11/2021 ♦ 24 March	▪ Surprising dynamic: Eurosystem lends EUR 331bn to EMU banks via TLTRO III.7 ▪ German Pfandbrief savings banks in Q4 2020
10/2021 ♦ 17 March	▪ Transparency requirements §28 PfandBG Q4/2020 ▪ Credit authorisations for German Bundeslaender in 2021
09/2021 ♦ 10 March	▪ Moody's covered bond universe – an overview ▪ Oldenburgische Landesbank expands sub-benchmark segment
08/2021 ♦ 03 March	▪ Repayment structures on the covered bond market ▪ ECB in a tight spot: litmus test for PEPP flexibility and preview of the second interest rate meeting of the year
07/2021 ♦ 24 February	▪ An overview of the EUR sub-benchmark segment ▪ ECB: crowding-out effects take hold ▪ PEPP vs. PSPP: Similarities and differences
06/2021 ♦ 17 February	▪ Insights into the iBoxx EUR Covered ▪ Development of the German property market
05/2021 ♦ 10 February	▪ PEPP reporting: upswing in public sector assets continues; covered bonds inconsequential
04/2021 ♦ 03 February	▪ Argenta Spaarbank expands Belgian market for EUR benchmarks ▪ An overview of the Fitch covered bond universe ▪ January 2021 packs a punch to kick off the new year
03/2021 ♦ 27 January	▪ An unusual – albeit expected – start to the year? ▪ A look at USD benchmarks ▪ ESM reform – restructuring continues
02/2021 ♦ 20 January	▪ Spread considerations – APAC covered bonds riding the wave of ECB purchase programmes? ▪ Return of the Danish market for EUR benchmark bond issues ▪ 22nd meeting of the Stability Council (Dec. 2020)
01/2021 ♦ 13 January	▪ EUR benchmark from the Czech Republic: Komerční Banka launches a new covered bond programme ▪ New covered bond programme from South Korea: Hana Bank ▪ Annual review of 2020 – covered bonds ▪ Annual review of 2020 – SSA
48/2020 ♦ 16 December	▪ TLTRO III: ECB extends tender and also raises the threshold

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 2020

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 2020

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

Trading

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

Origination & Syndicate

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

Sales Wholesale Customers

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

Treasury

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

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Additional information
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None

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Issuer / security	Date	Recommendation	Bond type	Cause