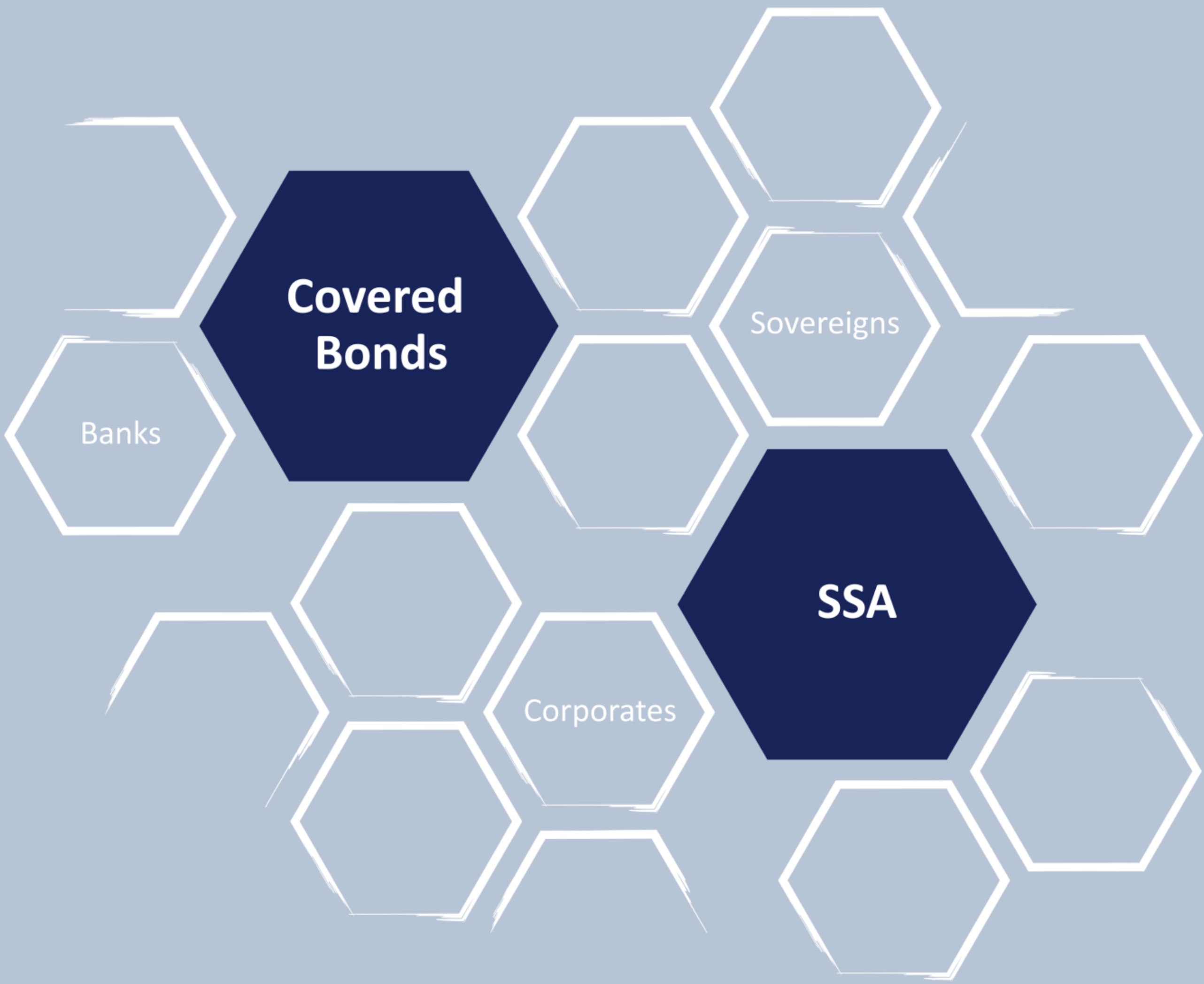

Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

16 February 2022 ♦ 06/2022

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

Finanzgruppe

Agenda

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Bloomberg: RESP NRDR <GO>

Market overview Covered Bonds

Authors: Melanie Kiene, CIIA // Dr Frederik Kunze

Primary market: ESG back in business now too!

We have admittedly been eagerly anticipating the first ESG benchmark on the primary market in 2022. On 09 February, the wait was finally over. What's more, this was no ordinary start to the year in terms of ESG activity. After all, as previously announced, a Spanish newcomer in the form of Caja Rural de Navarra (CRUNAV) appeared on the market. In fact, CRUNAV was not only making its green debut, but also became the first Cédulas issuer to place a green benchmark on the market. And if that wasn't enough, this was also the first Spanish benchmark of the year. The bond worth EUR 500m (7y) was issued with a re-offer spread of ms +15bp at the level of the initial guidance. The largest share of the allocated volume went to accounts in Spain (45%), followed by investors based in Germany and Austria (41%). Overall, 39% went to accounts in the category of Central Banks/OI, while Banks and Asset Managers snapped up shares of 33% and 22% respectively. Also on 09 February, AXA Bank Europe SCF approached investors with a deal of its own. This EUR benchmark worth EUR 500m (WNG) started out in the marketing phase in the area of ms +7bp before ultimately being priced three basis points tighter at ms +4bp. In geographical terms, the distribution of the allocated volume was highly diversified. In this context, the largest share (27%) went to France, followed by Germany and Austria (23%), the Nordics (18%) and Benelux countries (15%). In terms of investor groups, the category of Central Banks/OI once more dominated proceedings with a share of 37%, ahead of Funds (34%) and Banks (16%). The next day, another dual tranche deal appeared on our screens. ING Bank from the Netherlands offered a brace of benchmarks: the 5y bond started the marketing phase in the area of ms +4bp, while the order books opened with guidance in the area of ms +17bp for a deal featuring an initial term to maturity of 15 years. The shorter-dated bond appealed much more strongly to the appetite of investors. Here, a volume of EUR 1.5bn (order book: EUR 3.4bn) was selected, with the deal ultimately being placed at ms flat. For the longer deal, the order book eventually totalled EUR 1.4bn for a bond volume of EUR 750m, producing a final re-offer spread of ms +15bp. Primary market activities over the next couple of trading days were then slightly restrained, not least due to general market uncertainty and rising fears of war in Ukraine. Nevertheless, the covered bond market moved quickly to underline that it can be regarded as one of the more crisis-resilient sub-segments of the fixed income universe. On Tuesday morning, DZ HYP announced that it was opening the books (ms +4bp area) for the second ESG benchmark of the year and its very first green Pfandbrief deal. As some market observers were expecting, the issuer evidently prioritised size in eventually placing the benchmark five basis points narrower with a volume of EUR 1bn. We expressly welcome this newcomer to the ESG universe and have dedicated a focus article to the green framework of DZ HYP and market for green Pfandbriefe later on in this edition of our weekly publication. Another covered bond heavyweight, namely BPCE, followed hot on the heels of DZ HYP with a successful deal of its own (cf. NORD/LB Issuer View: BPCE). BPCE placed this deal with a considerable volume of EUR 1.75bn (7y) at ms +5bp. In so doing, it managed to record narrowing of three basis points against the guidance despite the deal size and a challenging market environment. The order book totalled a substantial EUR 3.4bn spread across more than 100 investors.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
BPCE SFH	FR	15.02.	FR0014008JP6	7.0y	1.75bn	ms +5bp	-/Aaa/AAA	-
DZ HYP	DE	15.02.	DE000A3MP619	7.8y	1.00bn	ms -1bp	-/Aaa/AAA	X
ING Bank	NL	10.02.	XS2445188852	15.0y	0.75bn	ms +15bp	AAA/Aaa/AAA	-
ING Bank	NL	10.02.	XS2445188423	5.0y	1.50bn	ms +0bp	AAA/Aaa/AAA	-
Caja Rural de Navarra	ES	09.02.	ES0415306093	7.0y	0.50bn	ms +15bp	- /Aa1/ -	X
AXA Bank Europe SCF	FR	09.02.	FR0014008E08	6.0y	0.50bn	ms +4bp	- /Aaa/ -	-

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

Non-EUR covered bond benchmarks: Deutsche Pfandbriefbank successfully places USD deal worth USD 750m on the market

After CIBC from Canada opened the USD benchmark segment for this year back in January, the first Pfandbrief deal in USD has now been placed with the most recent covered bond from Deutsche Pfandbriefbank (pbb). This deal, which featured the USD segment's customary term to maturity of three years, was issued at ms +43bp after initial guidance in the area of ms +45bp. The spread, which tightened by two basis points during the marketing phase, is based on the USD reference rate known as the Secured Overnight Financing Rate (SOFR). With an order book of USD 875m, pbb ultimately issued a bond volume of USD 750m. While this was just the second USD benchmark recorded so far this year, there have been four issuers active in the GBP benchmark segment with one deal each: Clydesdale Bank and Yorkshire Building Society from the UK in addition to the Bank of Nova Scotia (CA) and National Australia Bank (AU).

Covered bond directive: EU adopts LCR adjustment

Owing to the covered bond directive, adjustments to both the Capital Requirements Regulation (CRR) and Undertakings for the Collective Investment in Transferable Securities (UCITS) are now required in addition to revisions to the LCR regulation. Last Thursday, these revisions were adopted by the EU. Compared with the draft bill, which was published back in October 2020, there were no more surprises in store following the consultation phase and feedback from experts. Initially, nothing will change for either investors or issuers as the revisions only have to be implemented by 8 July 2022 – as is also the case for the covered bond directive. The revision to the LCR sought in particular to address the issue of overlapping liquidity requirements within the first 30 days. In this context, a double liquidity provision would otherwise have been necessary on account of the covered bond directive and the LCR regulation. With regard to the transparency provisions, the old reference to Art. 129 (7) CRR will result in this from the CB Directive. As such, the control obligation will be transferred to national responsibility, which in itself could entail additional work for investors in terms of research. However, we do not anticipate major issues because the majority of issuers already have comprehensive reporting mechanisms in place. Another point to bear in mind in the context of the revisions is that covered bonds are now clearly defined within the framework of the LCR. This means that the UCITS directive no longer represents a reference in this regard, although in the case of existing bond deals that comply with UCITS, LCR eligibility will remain unaffected. An overview and classification of the covered bond benchmarks within the framework of the LCR can also be taken from our LCR Study. We will be publishing an update to this in the coming weeks, before revising it again in line with the new specifications after the covered bond directive comes into force on 8 July 2022.

Italian banks: takeover offer presented for Banca Carige

As detailed in a press release issued at the start of this week, Banca Popolare dell'Emilia Romagna (BPER) from Italy has now submitted a takeover offer for its stricken compatriot Banca Carige. BPER took part in due diligence checks and did not uncover any anomalies. The board of directors met on Monday and gave the green light for an official takeover bid for Banca Carige. BPER is offering a symbolic price of one euro for the 80% stake held by FITD, the Italian deposit guarantee fund. In addition, BPER is offering a price of 80 cents per share for the remaining 20% stake, which includes the 8% stake held by the Trento cooperative holding company Cassa Centrale Banca (CCB). The agreement also includes a EUR 530m recapitalisation by the FITD. Moreover, there would also be a tax credit of EUR 328m should the takeover be completed by the end of June, as announced. It is not yet clear what impact this takeover will have on the NPL portfolio of EUR 618.4m (gross; as at Dec. 2021), although BPER is keen to take over a "tidy" bank. According to preliminary figures, Banca Carige posted total assets of EUR 22.3bn as at year-end 2021, while BPER's balance sheet total came in at EUR 138.4bn. Following completion of the takeover, the new group would become Italy's fourth-largest bank. Banca Carige was placed into administration in 2019 after being classified as vulnerable in the wake of an ECB stress test. If the takeover were to fail, the ECB is demanding a capital increase in excess of EUR 400 million and a revised strategic plan. In recent years, Banca Carige has stopped issuing covered bonds. In this context, the outstanding covered bond volume amounted to EUR 1.0bn as at mid-2021. Of this figure, a total of EUR 600m fell due in October 2021, meaning that the bank no longer has any benchmarks outstanding. A further EUR 170m is then set to fall due in October of this year. The takeover of Banca Carige will therefore not have any great impact on the rankings of Italy's largest covered bond issuers. BPER operates two issuance programmes. Under the Residential programme, a total of EUR 4.0bn (31 Dec. 2021) has been issued, with the associated cover pool totalling EUR 4.6bn. As part of its CPT programme, the bank has issued bonds in the amount of EUR 4.65bn (31 Dec. 2021), with a cover pool of EUR 5.1bn here.

SREP results: banks come through the pandemic well, slightly higher equity requirements

The ECB has now published the full results of its Supervisory Review and Evaluation Process (SREP) for 2021 in a press release. The findings affirm that the major banks investigated as part of this process boast solid capital and liquidity positions. According to the ECB, six banks have failed to comply with the capital requirements of the supervisory body. However, these banks were not explicitly named in the press release. The total capital requirement and recommendation has only risen slightly overall from 14.9% to 15.1%, while an increase from 10.5% to 10.6% was determined for hard core (CET1) capital ratio. The ECB also established that the majority of banks already fulfil the capital requirements and recommendations. Nevertheless, the ECB continues to identify uncertainty in relation to the future development of the pandemic, supply chain disruptions and emerging risks (e.g. in the areas of cybercrime, climate change, earnings pressure, low interest rate environment). The increase to the overall capital requirement outlined above results from the Pillar 2 capital requirement and essentially relates to banks that have not set aside sufficient provisions for credit risks in connection with NPLs granted prior to 26 April 2019. Germany's largest bank, Deutsche Bank, will be required to comply with a hard core capital (CET1) ratio of at least 10.43%, as was the case in the previous year. At 13.23% as at year-end 2021, Deutsche Bank actually exceeded its minimum CET1 ratio last year. In our opinion, the SREP data generally indicates that the European banking market is in a solid state, which ultimately also underlines the credit quality of covered bonds.

ECB publishes consolidated bank data as at the end of September 2021

The ECB publishes consolidated bank data for the EU banking sector on a quarterly basis. Data from 323 banking groups and 2,511 individual banks (including subsidiaries and representative offices of foreign banks) was included in the analysis as at the end of September 2021. Accordingly, the EU banking market, as measured by the sum total of assets of banks domiciled in the EU, has now grown to EUR 30.98tn (+4.15% Y/Y). Non-performing loans (NPLs) have fallen year on year to 2.17% (-0.21 percentage points), while the hard core capital ratio stood at 15.65% (calculated on the basis of RWAs and the share of CET1 capital). Looking at NPLs and total lending over time, it is clear that NPLs have remained relatively stable. However, total lending has increased, meaning that much of the decline in the NPL ratio can be attributed to credit growth. Overall, therefore, it is quite pleasing that NPLs have not risen despite the onset of the coronavirus pandemic and economic contraction. With the exception of Greece, return on equity is consistently positive overall throughout the Eurozone.

Market overview SSA/Public Issuers

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

Cautious economic optimism in NRW

The NRW.BANK.ifo Business Climate provides insights into economic development in North Rhine-Westphalia (NRW). It surveys around 1,500 companies in the federal state every month regarding their current business situation and expectations for the future. Their responses are analysed exclusively for NRW.BANK and we are reporting on them briefly today. According to the survey, the economy in North Rhine-Westphalia has started the new year with a slight uptick in sentiment and with hopes of improved business in the future in particular. However, the companies' assessment of their current business situation is once again worse than in the previous month. However, the press release states that confidence at senior management level that the situation will improve in the first half of 2021 has soared. In January, the NRW.BANK.ifo Business Climate went up by 0.8 balance points to 8.3 points. As recently as December 2021, the sentiment indicator for NRW's economy suffered its second biggest fall since the start of the pandemic in April 2020 due to the resurgence of the coronavirus crisis. The recent upturn does not fully offset this decrease and sentiment consequently remains below pre-crisis levels. With regard to the assessment of the current business situation, the negative trend of previous months persists. Alongside the Omicron wave, rapidly rising energy prices and delivery bottlenecks in industry in particular are making life difficult. The Ukraine crisis has now added geopolitical risks to the mix. "The proportion of companies that expect good business in the next six months has increased significantly, especially in industry, trade and construction. Overall, this does not signify a reversal of the trend," says Eckhard Forst, CEO of NRW.BANK. The manufacturing sector even saw an above-average rise in sentiment, with industrial companies more satisfied with current business now. In addition, optimism increased with regard to the coming six months. Capacity utilisation remained constant at 84.4% and was therefore still above the long-term average. At the beginning of the year, the shortage of raw materials and preliminary products did not worsen for the first time in five quarters. Nevertheless, as many as 65% of the companies surveyed continue to report delivery problems. The business climate has also improved in the retail sector. While companies assessed their current business situation somewhat more negatively, expectations for the next six months brightened considerably. Retailers in particular are less sceptical of the future than they were as recently as December. Many of the fears regarding the Omicron variant have meanwhile proved unfounded. The proportion of retailers intending to put prices up in the next few months declined for the second month in a row, but is still high at 62%. In the service industry, the climate improved again after consecutive downturns in the past two months. There was a significant upturn in sentiment in hospitality, but the climate is still mired in deeply negative territory. There has been a slight deterioration of the mood in the construction industry. However, supply bottlenecks on building sites in North Rhine-Westphalia decreased again in January, with just over 30% of construction companies reporting shortages compared with almost 50% in summer 2021.

A German gem: well done Rhineland-Palatinate!

The preliminary financial statements for Rhineland-Palatinate's budget show a financing surplus of almost EUR 2.3bn in 2021. This extremely positive result reflects in particular the sharp rise in tax revenue in the federal state, which was over EUR 2.6bn higher than forecast when the budget was prepared. Finance Minister Doris Ahnen announced that the budget surplus will be used to repay the federal state's debts and support its local authorities. We recently reported on the exceptional effect on local taxes in the city of Mainz (keyword here: BioNTech). "The positive budget surplus also reflects the responsible budgetary policy of the federal state government during the crisis. At the same time, it has been influenced to a great extent by unusually pleasing exceptional effects. In line with the debt brake and a sustainable finance policy, it is appropriate to use the economic portion of the surplus amounting to EUR 1.267bn for debt repayment. Net repayments on the credit market will total EUR 1.494bn overall," explains Ahnen. "In addition, we will continue to support local authorities in Rhineland-Palatinate. To this end, we have transferred a total of EUR 750m to our reserves," she emphasised. Of this, EUR 500m is to be used to meet the federal state's intention of taking on a fifty percent share in the liquidity loans of highly indebted local authorities. In total, the federal state's government assumes that transfers of existing debt could stand at up to EUR 3bn. A further EUR 250m is slated to be made available for a municipal investment programme focusing on climate and innovation. According to a press release, this major investment programme will be drawn up over the next few months and launched with the budget for 2023. "The federal state supported local authorities in Rhineland-Palatinate during the coronavirus pandemic and ensured they had the funds to be able to act. Now it is about giving local authorities further scope for action so they can invest in the future. This is also an important contribution to achieving our goal of making Rhineland-Palatinate carbon neutral", the Finance Minister explained. The emergency loans taken out by the federal state to combat the coronavirus crisis in 2020 amounting to EUR 169m were repaid prematurely in 2021, earlier than legally required. The original requirement was for repayment to start in 2024 and that it would be carried out over a period of around 20 years. The adjusted total income for the federal state in 2021 stood at EUR 22.984bn with total expenses of EUR 20.688bn. This result makes Rhineland-Palatinate a financially strong federal state (donor versus recipient federal state) for the first time since the inception of the federal financial equalisation system (1969). At the same time, Rhineland-Palatinate will have to make high repayments on a time-delayed basis under the federal financial equalisation calculation, which will notably affect its budget in the current year. According to press reports, the Association of Taxpayers (BdSt) in Rhineland-Palatinate is critical of the formation of additional reserves announced by the federal state. Although it expressly welcomes the planned debt repayment out of the budget surplus, in the press release, Rainer Brüderle, BdSt President in Rhineland-Palatinate, commented that transferring EUR 750m to the "already plentiful federal state reserves in a time of minus interest rates and relatively high inflation was a bizarre decision". To recap: the yield on 10y Bunds is +0.3%. In light of the discussions relating to the budget for 2022, the BdSt is calling instead for a move away from the planned debt policy. To achieve a surplus in the billions and fill up the federal state's reserves in 2021, only to plan on new debt of around EUR 900m in 2022 does not add up according to the trade magazine "Der Neue Kämmerer" and Brüderle. "Breakeven is readily achievable and should also be what is planned in the budget."

International Investment Bank (IIB) reports on 2021

The International Investment Bank (IIB) headquartered in the Hungarian capital of Budapest posted what is a record profit in its young history of EUR 7.9m in 2021. The 8% rise is higher than the year before and primarily due to increased earnings from core activities. The bank's total assets grew to EUR 1.8bn, which equates to a rise of over 10%. The main reason for the growth in assets was the rise in lending and investment support granted by the bank to its member states, including measures aimed at economic recovery to overcome the negative impact of the pandemic. IIB also continued to implement its capitalisation programme in 2021. At the end of the reporting period, paid-in capital reached EUR 424.9m (+12%). The active support of IIB member states further strengthens its financial stability and serves as a key factor for the dynamic growth of the bank and, according to the press release, opens up new opportunities to further drive investment activity in the shareholder countries.

Primary market

New issues in the primary market in the reporting trading week were initially very slow, but the pace really picked up yesterday. But let's look at the deals in chronological order. We had already announced the CADES deal in the last edition of this publication. The issuer was seeking to raise EUR 2.0bn via its 7-year social bond. Guidance was set at OAT +19bp area and the transaction was priced at OAT +18bp, with FRTR 0% 11/25/29 serving as the benchmark here. At the time, this corresponded to around ms -7bp. The deal was 25% oversubscribed, with an order book amounting to EUR 2.5bn. By way of comparison, CADES achieved an order book of EUR 26.5bn with its 10-year mega bond (volume: EUR 6.0bn) on 11 January 2022. Next up on the trading floor was the EIB, this time with a deal under its own EARN programme (Euro Area Reference Note). The bonds featured a 5-year maturity and a volume totalling EUR 3.0bn (WNG). The order book was more than 15x oversubscribed, enabling the spread to tighten versus the guidance (ms -20bp area) by two basis points at ms -22bp. Rhineland-Palatinate (ticker: RHIPAL) joined the roster of issuers yesterday. The federal state intends to retain EUR 150m of its 10-year benchmark bond (volume: EUR 500m). Guidance for the deal stood at ms -10bp area and this is where the spread also remained. Our coverage also includes details of two taps and one new mandate. Bpifrance (ticker: OSEOFI) increased its 0.5% 05/25/25 bond by EUR 250m at OAT +24bp, while Lower Saxony garnered EUR 500m for its NIESA 0.5% 06/13/25. A mandate was also awarded for another tap issue, this time a EUR 2.0bn (WNG) deal for ESM 0% 12/15/2026. The ESM had an RfP for a forthcoming transaction sent to the banks in advance. We will closely monitor how the primary market reacts to the current turbulent times and will continue to report as usual.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
RHIPAL	DE	15.02.	DE000RLP1353	10.0y	0.50bn	ms -10bp	AAA / - / -	-
EIB	SNAT	15.02.	XS2446841657	5.6y	3.00bn	ms -22bp	AAA / Aaa / AAA	-
CADES	FR	09.02.	FR0014008E81	7.8y	2.00bn	ms -7bp	- / Aa2 / AA	X

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

NORD/LB

Cross Asset
PEPP reporting: Finish line in sight, but no photo finish expected

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

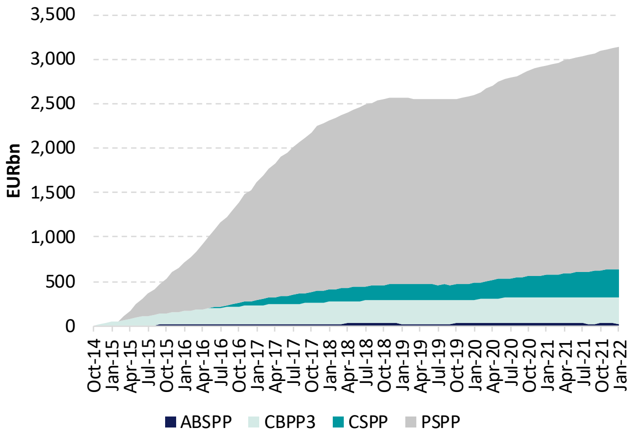
PEPP reporting to become less relevant moving forwards?

The most recent ECB meeting, and in particular the subsequent press conference, has led to an increased level of uncertainty with regard to the further course of ECB monetary policy (cf. ECB Cross Asset of the previous week). However, based on the decisions announced in December 2021 and confirmed in February of this year with regard to the PEPP pandemic programme, the end of net purchases under the PEPP can surely now be regarded as a done deal. This means that the new net purchases made by the ECB since March 2020 would have run for two years when net purchases are discontinued on 1 April 2022. We can also look back on a long history of bi-monthly PEPP reporting, with the ECB publishing detailed information on the PEPP for the first time in May 2020. With the latest update (for the reporting period December and January) on 8 February 2022, the Eurosystem presented the latest figures on the distribution of securities purchased under the PEPP. As we point out in this present article on PEPP reporting, a look at the figures does not reveal any notable surprises. Nevertheless, we still think it is more than merely advisable to consider the scope and composition of the PEPP in the current market environment. This applies not least in view of the ECB's broad range of options in regard to further purchasing behaviour, also within the framework of the APP. Of equal importance in this context is, among other things, the pathway for the reinvestment of maturing securities purchased under the PEPP. We have repeatedly noted here that although the ECB had announced reporting for the PEPP along the lines of the APP, this was never provided – especially with regard to the expected maturities under the PEPP. In the following, we shall elaborate on these trains of thought and also cautiously outline what could happen in the future.

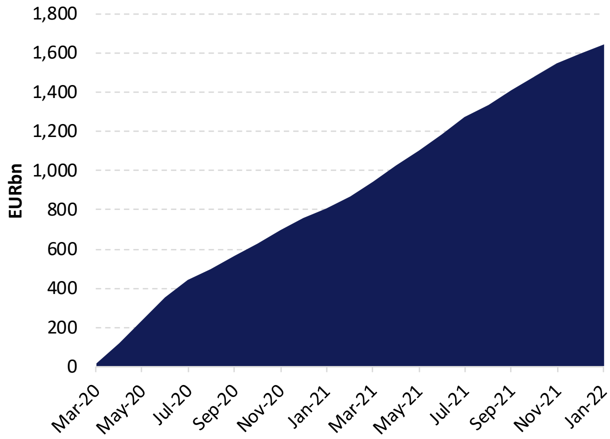
PEPP: gradual scaled back until cessation

It seems like another age when the ECB announced at its meeting on 11 March 2021 that it would make purchases under the PEPP at a significantly faster rate in Q2 2021. Expressed in figures, the volumes purchased under the PEPP in the months April to July 2021 were more than EUR 80bn per month and on average EUR 82bn. Although this was significantly lower than the initial levels from April to June 2020 and thus the peak of the pandemic uncertainty, it also marked the starting point for a noticeable reduction in purchasing activity, which we would not exclusively, but largely, link directly to price developments in the common currency area. The scaling back of PEPP purchases is equally evident in the monthly view. In the months August 2021 to January 2022, the average value was accordingly EUR 62.6bn, with December 2021 and January 2022 in particular characterised by a restrained pace. The values of EUR 49.4bn (December 2021) und EUR 50.1bn (January 2022) cannot be explained solely by public holidays or seasonal breaks in purchasing activity, but in our view reflect the regime change at the ECB Governing Council which became apparent at the latest in December 2021.

Trend in APP volume



Trend in PEPP volume



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

Net volume exceeds 88% mark; gross purchases already over EUR 1,900bn

As at the current reporting date, the PEPP volume amounted to EUR 1,645.1bn, which corresponds to a share of 88.9% of the defined envelope of EUR 1,850bn. Since this value only reflects the current (account) status of the programme, it is also worth taking a look at the gross purchases. This shows that a gross amount of around EUR 1,922.6bn has already been purchased under the PEPP. The share of maturities (EUR 260.6bn) amounts to 13.6% of gross purchases and is therefore noteworthy and relevant in view of the full scope of reinvestment activities that will now take place up to the end of 2024. In 2021, assets with an average volume of EUR 3.7bn matured every week, while the equivalent value for 2022 so far totals EUR 3.2bn. In terms of the reinvestment strategy, it is therefore still not clear to us, as already mentioned, why the ECB is displaying such a considerable lack of transparency, as we consider bi-monthly reporting to be too infrequent and not sufficiently detailed, given that from April onwards there will only be reinvestments and no more net purchases.

Weekly view: calculated purchase rate almost reached

Since the PEPP started at the end of March 2020, the ECB has purchased EUR 16.9bn on average per week under the programme – although the trend here has been in sharp decline recently. Although the volumes observed each week are therefore subject to significant fluctuations – such as in phases of little market activity (Christmas or summer holidays) – the current mean would not result in the defined envelope of EUR 1,850bn being used up in full in mathematical terms by the end of March 2022. The earliest possible end of net purchases has now even been brought forward somewhat, as this was mathematically possible due to the accelerated pace, but, as described above, the pace of purchases has been reduced or curbed for months. In this respect, we were correct in our forecast that the pace of purchases was likely to lose momentum, especially towards the end of the programme. However, up to this point, the ECB has retained the greatest possible flexibility with regard to the PEPP and has repeatedly emphasised at its Governing Council meetings that both underutilisation of the EUR 1,850bn volume and a further increase were "equally" likely. This is no longer the case so close to the planned end of the programme on 31 March; we expect neither full utilisation nor a renewed expansion of the programme. The PEPP has served its purpose over the last two years – the effects of the pandemic, especially on public issuers, have been mitigated by artificially low yields and correspondingly low refinancing costs.

NORD/LB

Estimated portfolio development

Assumed future purchase pace	Assumed future purchase pace	Assumed future purchase pace
Average net weekly purchase volume so far	EUR 16.9bn	11 weeks (29 April 2022)

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

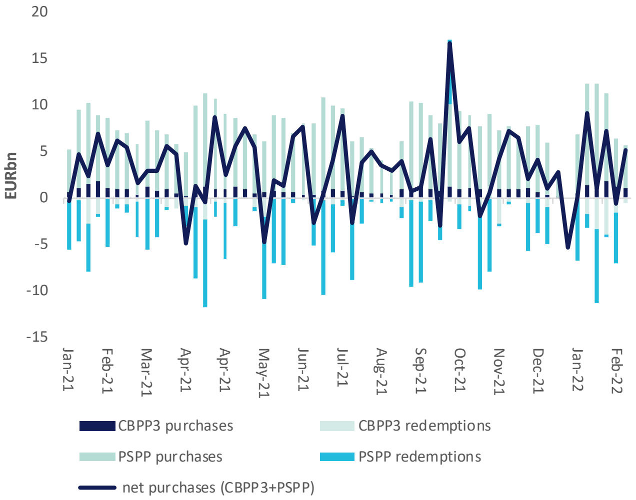
Proportion of public sector assets increased again…

Based on the latest PEPP figures, a clear trend continues to be evident. The PEPP is used for the purpose of buying public sector assets. In fact, the share of public sector assets has now risen to a new record of 96.9%. This share has continuously increased since the programme was first set up. In total, public sector assets worth EUR 99.2bn were purchased under the PEPP in the months December 2021 and January 2022. We can imagine a similarly high value for the last two months of net purchases (February and March 2022), although we would tend to expect the volume to come in slightly below this.

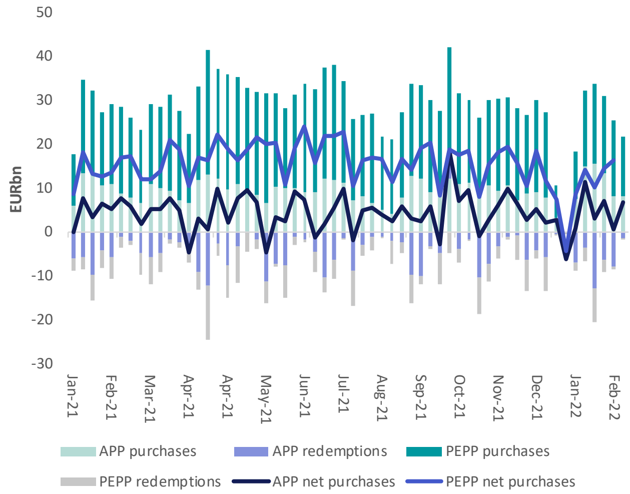
Relevance of PEPP for covered bonds: marginal in absolute terms...

In our opinion, it can be stated without exaggeration that the PEPP has virtually no direct relevance for the covered bond segment. We have repeatedly pointed this out in the past and will not tire of emphasising it now. The PEPP share for covered bonds is currently just 0.4% (EUR 6.1bn). Nevertheless, we see a direct impact on the covered bond market, not least due to second-round effects as well as the possibility that the high volumes purchased, especially in the “public sector securities” category under the PEPP, will create a little more room for covered bonds under the APP. This consideration can then also be followed by the – Initially theoretical – train of thought that the communicated end of the PEPP may even come at the expense of the covered bond volume purchased under the APP. A certain level of interdependence between the APP and PEPP cannot be dismissed in any case due to identical ISIN lists in the context of reporting.

Purchases under the PSPP and CBPP3 (since 2021)



Purchases under the PEPP and APP (since 2021)



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

...but still not insignificant for the sub-segment

In the context of the indirect impact of the end of the PEPP on covered bonds, we believe there are at least three scenarios based on the December decision (see below). Firstly, the volume of purchased covered bonds could increase from April 2022 onwards if the CBPP3 share of the APP is maintained. Secondly, the Eurosystem could keep purchasing activity under the CBPP3 more or less constant for the time being. And thirdly, the ECB could take the explicit decision to significantly reduce both net purchases and reinvestments under the CBPP3 in favour of public sector securities if this is deemed necessary for its own mandate. However, it should also be borne in mind that these three outlined options are subject to the fundamental uncertainty as to what shape the APP will take after 31 March 2022.

What does the "official" ECB decision say about the PEPP and the APP?

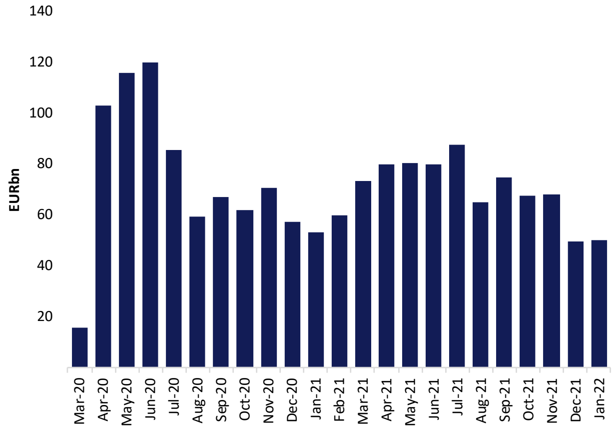
Currently, the majority of market participants expect at least an initial interest rate hike in 2022 and feel that this view has been confirmed by the way the ECB press conference unfolded. Consequently, the decisions taken at the ECB meeting in December 2021, which were also confirmed by the statement in February 2022, are now also coming under increasing scrutiny. The ECB's current official policy position or (still valid) scenario envisages no increase in the APP in Q1 (i.e. EUR 20bn per month as per usual), then a doubling of monthly net purchases to EUR 40bn in Q2, a reduction to EUR 30bn per month in Q3 and a return to the initial level (EUR 20bn per month) in Q4. In the APP, this corresponds to EUR +90bn in additional purchase volume in 2022 compared with 2021 and a total volume in 2022 of EUR 330bn. It is also worth repeating that the APP currently still has no defined end date, after which there will be interest rate hikes in accordance with the formulated sequencing. However, this outlined course is no longer particularly likely to actually materialise. Any alteration will most likely be decided based on the new ECB projections on inflation, which will be presented in March. The accommodative measures in regard to the end of the PEPP are therefore likely to be much less pronounced. Last week we looked at possible scenarios for the APP going forward and outlined three other possible paths. While the ECB's policy position still envisages total purchases under the APP of EUR 330bn, we assume much more restrained accompanying measures in our three scenarios (total APP 2022: EUR 220bn or EUR 150bn). Interest rate hikes in 2022 (in two of the three scenarios) could, for example, be the result of only doubling the APP for a short period of time, or not increasing it at all. In another alternative scenario, however, the Governing Council could also refrain from the "stoic" communication of monthly net purchases in the future course of the APP and, entirely in the spirit of emphasising its own flexibility, choose the path already tested under the PEPP of announcing an APP envelope for the remaining months of 2022.

Volumes of the asset classes (EUR m)

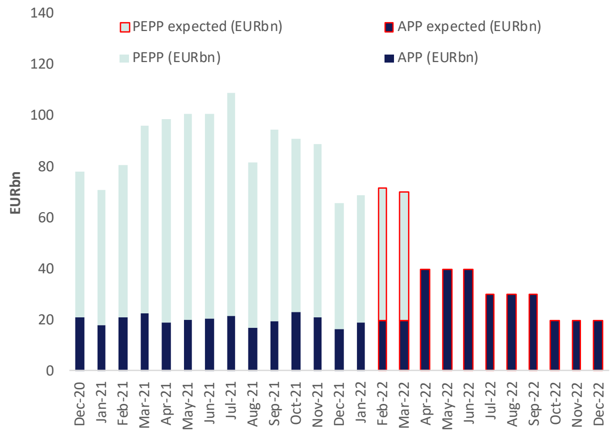
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Nov 2021	0	6,079	39,871	4,032	1,485,526	1,535,508
Jan 2021	0	6,073	40,301	3,857	1,580,547	1,630,779
Δ	0	0	+467	-172	+99,193	+99,488

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

PEPP: monthly purchases



APP and PEPP: monthly purchases / baseline scenario



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

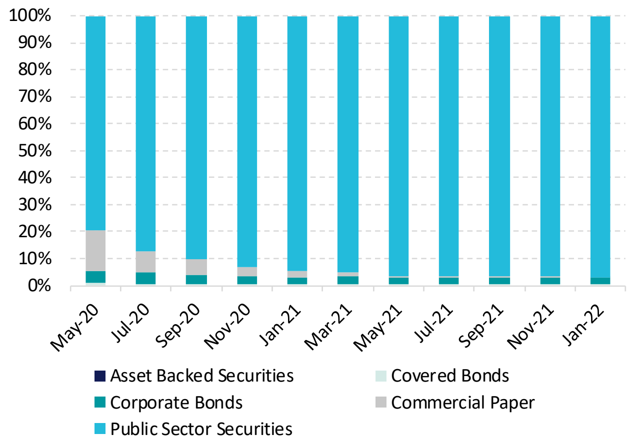
Capital key for the PEPP...

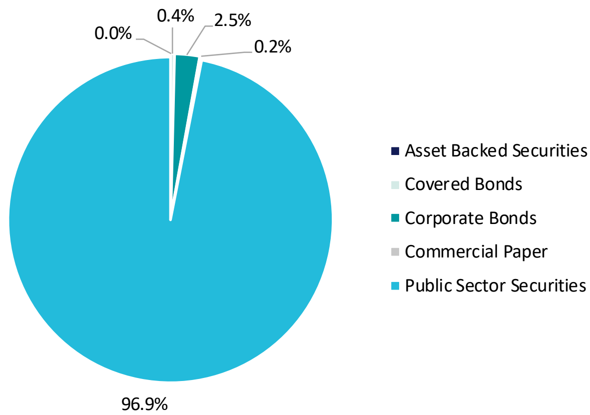
To recap, since the structure and set-up of the PEPP differs from that of the PSPP, adjustments to the capital key result as well as maturity-driven purchases, because Greek bonds are eligible to be purchased under the PEPP but excluded from purchases under the PSPP. The capital key for Germany is 23.7%, followed by France (18.4%), Italy (15.3%) and Spain (10.7%). Next are Supranationals at 10%. At 2.2%, Greece ranks between Austria (2.6%) and Finland (1.7%). We had imagined in recent months that the share of Supras could increase, although this did not ultimately materialise. The increased supply from the EU as a new mega issuer had suggested, among other aspects, that the ECB might have to make some adjustments in this respect. At 8.5% (trend still rising), the share of Supranationals is still sufficiently far away from the 10% envisaged.

...in comparison with the capital key of the PSPP

Since the PSPP differs, as explained, from the PEPP in terms of its structure and set-up, adjustments to the capital key result as well as maturity-driven purchases because Greek bonds are not eligible for purchase under the PSPP. The capital key for Germany in relation to this programme is 24.3%, followed by France (18.8%), Italy (15.7%) and Spain (11.0%). Next are Supranationals, again at 10%.

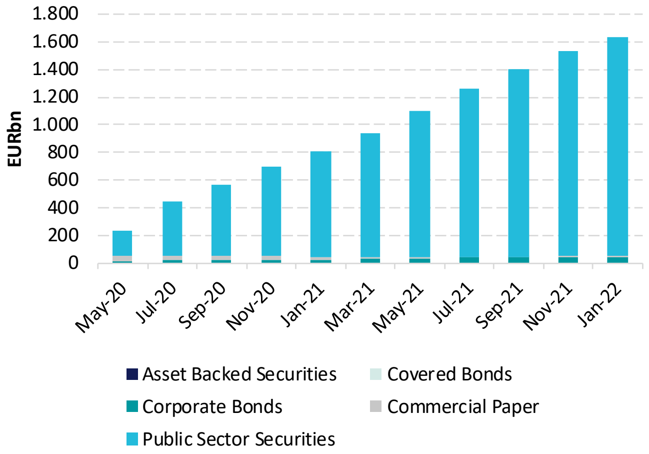
Portfolio structure



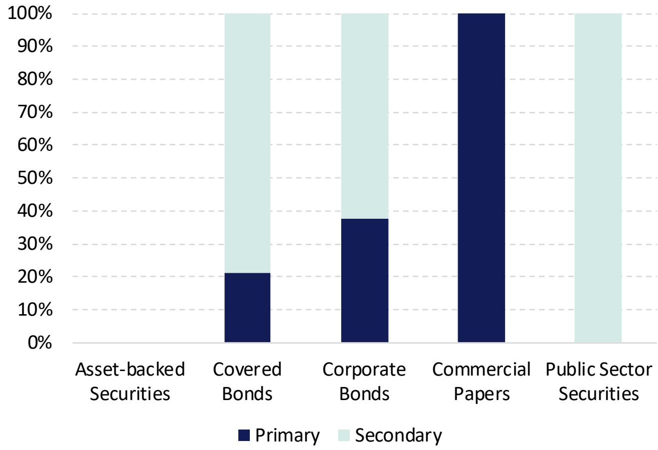


Source: ECB, NORD/LB Markets Strategy & Floor Research

Portfolio development



Share of primary/secondary market purchases



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

Overview of public sector assets under the PEPP

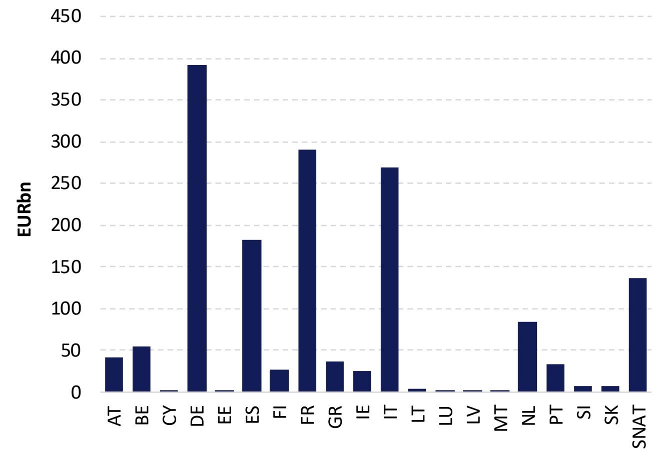
Jurisdiction	Holdings (in EUR m)	Adjusted distribution key[1]	PEPP share	Δ vs. adjusted distribution key[2]	Ø time to maturity (in years)	Market average[3] (in years)	Difference (in years)
AT	42,272	2.6%	2.6%	0.0%	8.2	7.0	1.2
BE	54,203	3.3%	3.4%	0.1%	6.6	9.2	-2.6
CY	2,514	0.2%	0.2%	0.0%	8.6	8.1	0.5
DE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

[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, NORD/LB Markets Strategy & Floor Research

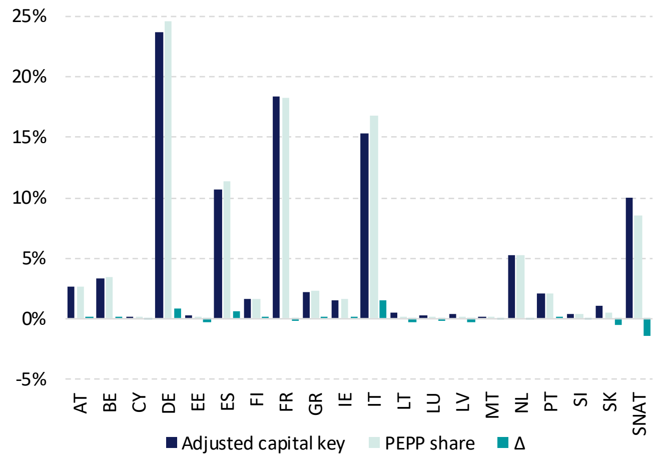
Nominal holdings of public sector bonds

As is clear from the charts shown above and the preceding table, Germany leads the theoretical and actual ranking of purchases, at around EUR 392.6bn. Accordingly, German bonds have also been overbought according to the current reporting, which means that there is a positive deviation from the adjusted capital key (+0.9 percentage points or around EUR 14bn). Italian bonds have also been bought above the limit since the PEPP started (still falling, now down to +1.5 percentage points). We have only identified further significant upward deviations in the case of Spain (also falling for several months now, down to +0.6 percentage points at present). The significant negative deviations, meaning that too few bonds have been bought, were identified for France (only -0.2 percentage points) and Supras (now -1.5 percentage points). All other deviations are around the zero line and do not therefore play a significant role.

Holdings of public sector bonds by jurisdiction



Deviations from adjusted capital key



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

Monthly PSPP deviations a frequent topic of discussion

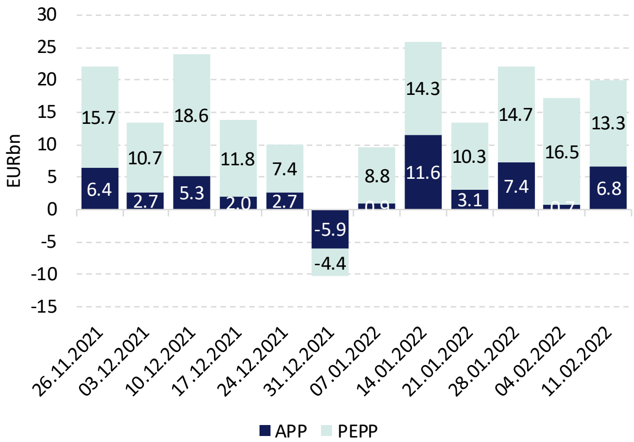
It is our understanding that the PSPP portfolio has been permanently "breathing" since 2015. This is also what the ECB is communicating. In addition, the ECB does not consider itself obligated to meet the capital key exactly for its holdings and, above all, any new transactions it carries out, in any one month. This applies not only to the net purchases made in the reporting month, but also to the figures recorded since the programme was first set up in 2015. This results from the circumstance alone that there are maturities in specific jurisdictions which may potentially only be replaced with a certain time delay and this means that, in net terms, short-term portfolio outflows can actually occur instead of net purchases, as the word "breathing" would suggest. Nevertheless, discrepancies have occurred and are occurring time and again with regard to the target figures for German, Italian and French as well as supranational bonds. In this respect, market observers remain at a loss as to why purchases were made under the one programme on behalf of the Eurosystem rather than on behalf of the other entity, in order to avoid such discussion in the media (or among market observers). Sometimes the figure is exceeded for the PEPP and there is a shortfall under the PSPP (or vice versa). However, we no longer believe that the ECB will implement any positive changes to its reporting, for example to also facilitate providing information about the volume of reinvestments or to discern certain market shortages in good time. As a result of combating the pandemic, significantly more securities are available for purchase, particularly in the public sector, than was assumed at the end of 2019 when the APP was restarted and prior to the PEPP being launched.

Aggregated purchase activity under the APP and PEPP (EUR m)

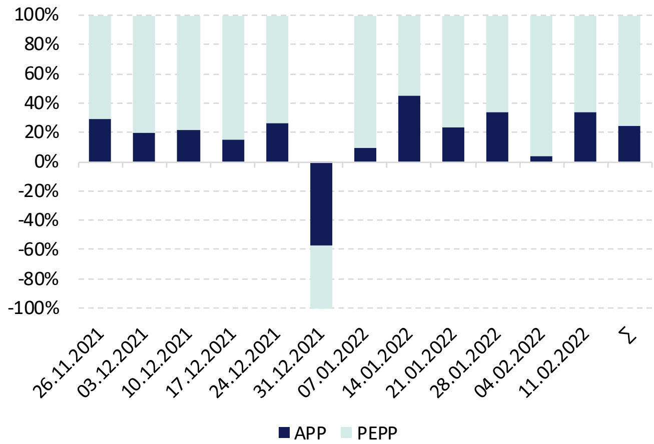
	APP	PEPP	APP & PEPP
Dec 2021	3,123,382	1,597,565	4,720,947
Jan 2022	3,142,221	1,647,678	4,789,899
Δ	+18.838	+50.113	+68.951

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

Weekly purchase volume



Distribution of weekly net purchases

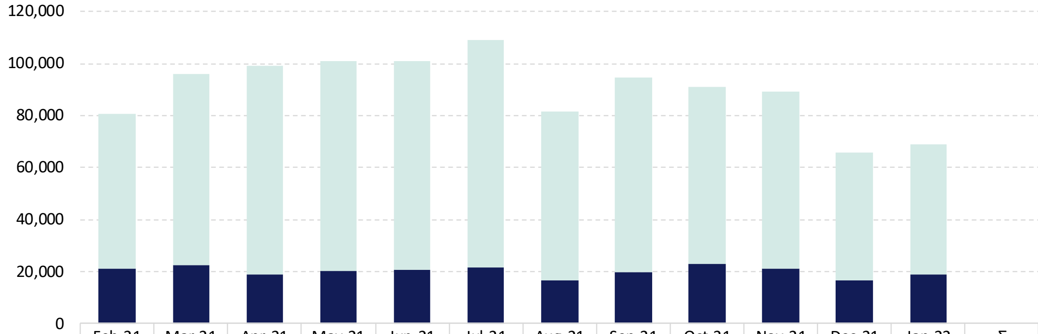


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Reinvestment phases of the programmes as long-term accommodative measures

In our reporting on the PEPP and the APP, we have regularly referred to the different objectives of the two purchase programmes and were thus able to explain the different portfolio structures. While the APP was and continues to be operated with the intention of achieving the goal of price level stability, the objective of the PEPP is much more short-term and is intended to counteract the negative consequences of the pandemic. In the projection, we see a basic retention of these differences for the two reinvestment phases. As mentioned above, the ECB currently envisages reinvesting the maturing PEPP securities at least until the end of 2024, while fully reinvesting APP maturities "for a longer period beyond the time when it [the Governing Council] starts to raise key rates". In light of recent price developments, but also the fact that the ECB Governing Council is no longer fully united on the need for an accommodative monetary policy, we see an increasing probability of adjustments here as well. Nevertheless, ECB President Christine Lagarde in particular is likely to try to work towards a gradual approach. A too rapid reduction of the ECB balance sheet would indeed have a significant disruptive potential also for the monetary policy transmission mechanism. To recap: the APP volume and PEPP volume totalled EUR 4,789bn at the end of January 2022. Conversely, both portfolios should continue to dominate the demand side of the asset classes we are looking at for a long time to come (key aspect: reinvestment until at least the end of 2024), irrespective of the further course of purchases in the coming months.

PEPP vs. APP: portfolio shares



	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
∑	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	1,078,29
PEPP	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	837,467
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831

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

Conclusion and outlook

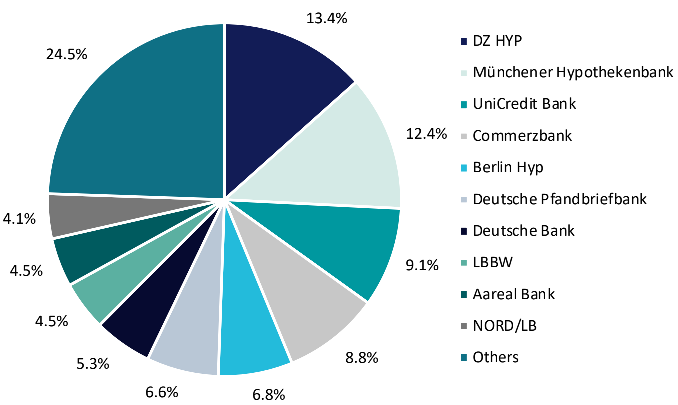
The fate of the PEPP would now appear to be sealed. The most recently formulated limit of EUR 1,850bn will be far from exhausted by the end of March 2022. We therefore have an answer to the interim question as to whether this “envelope” would be sufficient or whether it would have to be topped up again well in advance. The pace of purchases has recently been significantly reduced, which is also a consequence of inflationary developments in the Eurozone. Soon, not only will a potentially very short phase begin in which the APP will have to handle the purchases alone, but also the era of sole reinvestment. With regard to the differences between the PEPP and APP portfolios, the original motives for setting up the unconventional monetary policy instruments play an important role. The decisive question is therefore to what extent the ECB will ensure its own flexibility in the future. We are also not ruling out the possibility that, for example, the covered bond segment will be the subject of somewhat less attention in the form of purchases or reinvestments during the reinvestment phase. For public issuers, we also expect a continuing information gap, or “blind spots”, in terms of transparency for the reinvestment phases. Even after the end of the PEPP, PEPP reporting will remain relevant, although the actual reporting and the dynamics derived from this are likely to be different.

Covered Bonds
DZ HYP issues inaugural green Pfandbrief: ESG market in Germany continues its growth trajectory

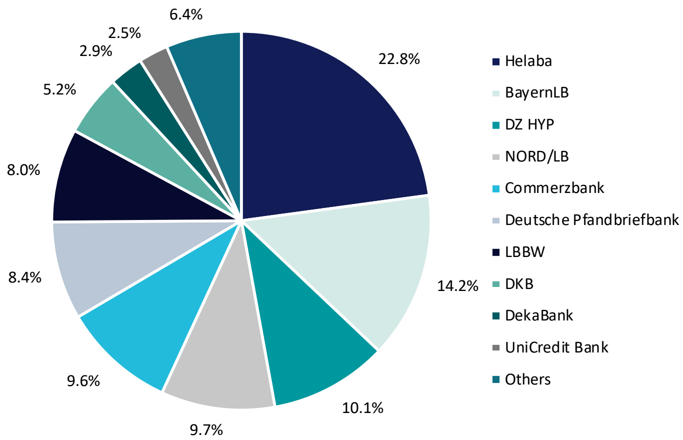
Author: Dr Frederik Kunze

DZ HYP: Germany's Pfandbrief top dog enters the ESG stage
Germany's largest Pfandbrief issuer, DZ Hyp, has now entered the ESG stage. With its first Green Pfandbrief, the bank successfully placed the second green EUR benchmark of the year. This has breathed new life into the ESG sub-market and means that the group of ESG issuers has gained a major player. Based on the official transparency disclosures for German Pfandbrief banks, DZ HYP accounts for the largest share of outstanding mortgage Pfandbriefe and ranks third for public sector Pfandbriefe (as of Q3 2021). In this article, we present DZ HYP's framework and provide an overview of the ESG Pfandbrief market, before assessing the potential offered by newcomer DZ HYP in the medium to long term.

Section 28 PfandBG: market share – mortgage Pfandbriefe



Section 28 PfandBG: market share – public sector Pfandbriefe



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

Green Pfandbriefe deals set to also broaden investor base
DZ HYP cites a range of factors as the rationale for developing and placing a Green Pfandbrief and establishing a framework for placing green bonds. It aims both to increase the product range for existing clients in addition to broadening its investor base. DZ HYP is also pursuing its aim of actively contributing to the UN Social Development Goals 11 (UN SDG 11, sustainable cities and communities) and 13 (climate action) and therefore to the energy transformation by providing finance for energy efficient buildings. The issuer also aims to further strengthen its sustainability strategy.

DZ HYP Green Bond Framework: based on ICMA Green Bond Principles
The Green Bond Framework at DZ HYP is based on the ICMA Green Bond Principles (GBP) in the version dated June 2021 and therefore takes into account the usual core parameters - I. Use of Proceeds, II. Process for Project Evaluation and Selection, III. Management of Proceeds, IV. Reporting and V. External Reviews. Consequently, the assets must demonstrate a clear ecological benefit and relate to the construction, acquisition or energy-related refurbishment of residential and commercial property, specifically in accordance with the GBP category "Green Buildings". In its Framework, DZ HYP refers to the definition of suitable assets based on international industry standards. Assets are suitable if 1. in the energy reporting category they do not exceed the maximum energy consumption/demand figures for residential, office, retail property, hotels, logistics (storage) or logistics (production)[1], 2. have certificates from DGNB (gold and platinum), LEED (gold and platinum) or BREEAM (very good or better) or 3. comply with the minimum requirements of the German Energy Saving Directive 2016 (EnEV 2016) for real estate or relate to co-financing through KfW development programmes that have an underlying energy efficiency rating of 55 or better.

Process for Project Evaluation and Selection, Management of Proceeds and Reporting
Like many other sustainability frameworks, DZ HYP's Framework places great emphasis on the process for project evaluation and selection. In this context, DZ HYP aims both to take account of developing standards and requirements and to adapt to these accordingly where necessary. It also seeks to maintain up-to-date information on the properties financed and to map and review this data digitally so that the corresponding loans can form part of DZ HYP's Green Mortgage Portfolio. This portfolio in turn forms part of the mortgage cover pool and can therefore be matched against the Green Pfandbriefe issued: Green Pfandbriefe can only be issued if there are sufficient suitable assets in the mortgage cover pool. Reporting on the Green Mortgage Portfolio and Green Pfandbriefe is carried out yearly, to the reporting date of 31 December in each case, during the first quarter of the following year. As with other issuers, reporting is broken down into Allocation Reporting and Impact Reporting. The Allocation Reporting discloses details of the Green Mortgage Portfolio, while the Impact Reporting provides information on the level of notional CO_2-savings.

Green portfolio: preliminary data as of 30 September 2021
As part of the current investor presentation for the DZ HYP Green Bond, the bank also provided preliminary key data for its Allocation Reporting. This shows that the loans are allocated to real estate lending in Germany and have a volume of around EUR 3.5bn as of 30 September 2021. Of this, the green mortgage cover assets are calculated at around EUR 2.0bn, spread across the asset classes residential property, offices, retail, hotels and logistics, with the largest share attributable to offices (EUR 920m) and residential property (EUR 517m).

[1] Residential 65 kWh/m² heat; » Office 90 kWh/m² heat and 70 kWh/m² electricity; retail 60 kWh/m² heat and 75 kWh/m² electricity; hotels 95 kWh/m² heat and 60 kWh/m² electricity; logistics (storage) 30 kWh/m² heat and 35 kWh/m² electricity; logistics (production) 105 kWh/m² heat and 65 kWh/m² electricity; see DZ HYP Green Bond Framework

Impact Reporting: annual saving of 75,986 tonnes of CO_2

With regard to sustainability evidence, most of this is attributable to the Energy Standard category (EUR 1.071bn). As part of its Pre-Issuance Impact Reporting (reporting date also 30 September 2021), DZ HYP states that 235 properties were included in the portfolio and 75,986 tonnes of CO_2 were saved annually. In absolute figures, the biggest contribution to these savings came from the "Retail" category. Accounting for 14.9% of the green mortgage cover pool, this sub-portfolio generated energy savings of 80,740 MWh/year and cut CO_2 emissions by 27,748 tonnes a year.

Second Party Opinion: ISS ESG evaluates framework as contributing significantly towards UN SDG 11

DZ HYP's Green Bond Framework was reviewed by ISS ESG. The external consultants confirmed that the Framework complies with ICMA Green Bond Principles. ISS ESG also evaluates the framework as making a significant contribution towards achieving UN SDG 11. Moreover, ISS ESG is also of the opinion that the Use of Proceeds financed through the Green Bonds is in line with DZ HYP's sustainability strategy and the main ESG issues in the industry. The rationale for the issue of Green Bonds was also clearly described by DZ HYP.

Outlook: integration of EU Taxonomy selection criteria into the Framework

With regard to the EU Taxonomy, DZ HYP refers in its Green Bond Framework to the fact that moving forwards, it intends to integrate the technical screening criteria pursuant to Annex 1 of the Delegated Regulation. We view this as an important but challenging further development in the asset selection process and use of proceeds in an international context as well.

DZ HYP green covered bonds: part of the Green Pfandbrief category with catch-up potential

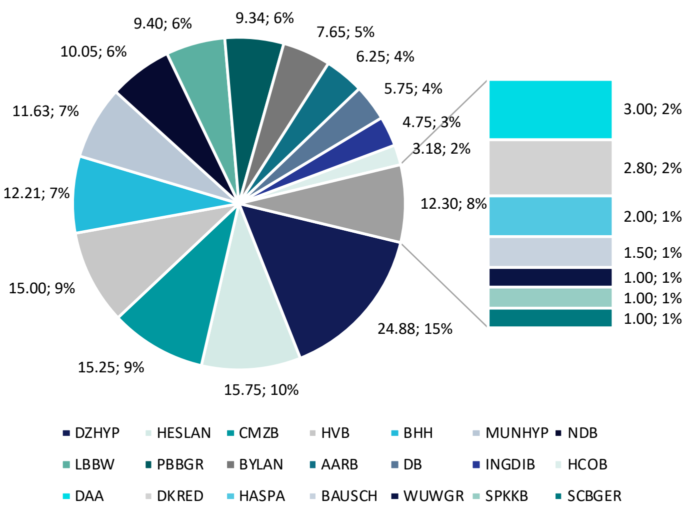
With regard to the green Pfandbrief sub-segment, we can already say that the DZ HYP Green Covered Bonds meet the vdp Minimum Requirements. The number of issuers listed by the Association of German Pfandbrief banks (vdp) as sustainable Pfandbrief issuers (green and/or social Pfandbrief) has therefore increased to eight. To date, green Pfandbriefe in EUR benchmark format have been placed by Berlin Hyp, ING-DiBa, LBBW, NORD/LB and UniCredit, while Sparkasse Hannover placed a EUR 50m green Pfandbrief in July 2021. Deutsche Kreditbank is present in the market with EUR benchmarks that satisfy the requirements for social Pfandbriefe. The largest volume of outstanding green Pfandbriefe is currently attributable to Berlin Hyp. However, in the case of DZ HYP, we see at least the potential to also establish a green Pfandbrief curve in the short to medium term. The current green cover pool could be further expanded to this end. From an investor perspective, regular green EUR benchmarks from DZ HYP would be a welcome development, especially given that the bank is the biggest EUR benchmark issuer.

ESG Pfandbriefe: EUR benchmark issuers

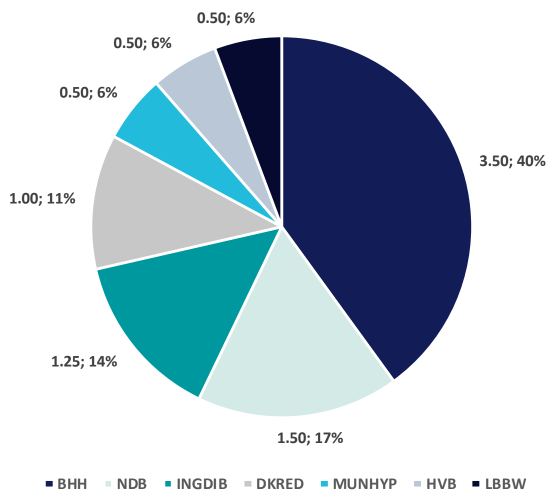
Issuer	Volume (in EUR)	ESG Type	No. of ESG BMKs	Second Party Opinion	Framework based on ICMA principles
Berlin Hyp	3.50bn	Green Pfandbrief	7	ISS ESG (Link)	YES (Link)
Deutsche Kreditbank	1.00bn	Social Pfandbrief	2	ISS ESG (Link)	YES (Link)
DZ HYP	0.00bn	Green Pfandbrief	0	ISS ESG (Link)	YES (Link)
ING-DiBa	1.25bn	Green Pfandbrief	1	ISS ESG (Link)	YES (Link)
LBBW	0.50bn	Green Pfandbrief	1	ISS-oekom (Link)	YES (Link)
Münchener Hypothekenbank	0.50bn	ESG Pfandbrief (green)	1	ISS ESG (Link)	YES (Link)
NORD/LB	1.50bn	Green Pfandbrief	3	ISS ESG (Link)	YES (Link)
UniCredit Bank	0.50bn	Green Pfandbrief	1	ISS ESG (Link)	YES (Link)

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

Germany: outstanding volume by issuer (BMK; EUR bn)



Germany: outstanding volume of ESG deals (BMK; EUR bn)

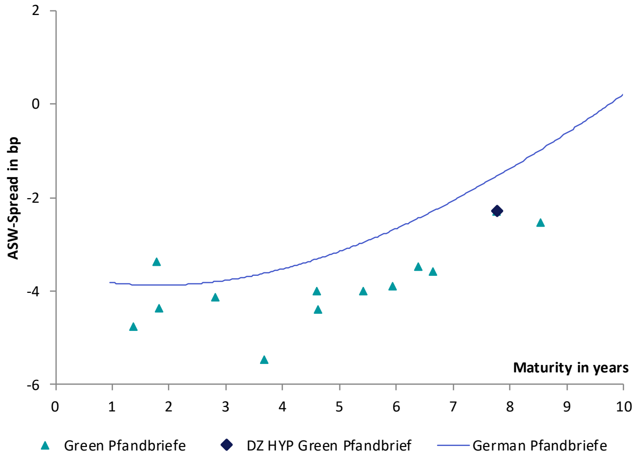


Source: Bloomberg, market data, NORD/LB Markets Strategy & Floor Research

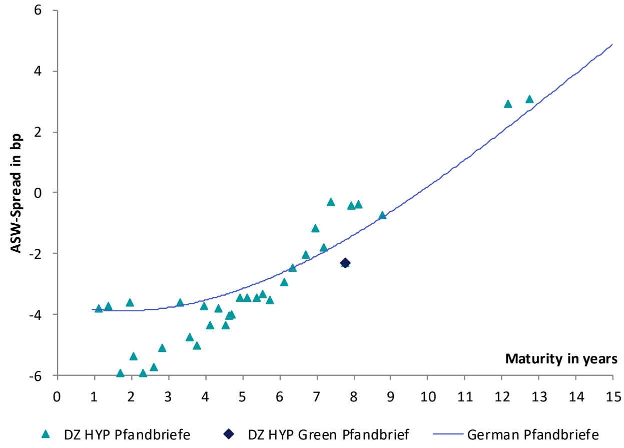
Spread considerations for DZ HYP Green Pfandbriefe

Even in the market environment of the past few years, which was characterised by extremely strongly supported and/or low covered bond spreads, there was a slight "green premium" in evidence in the systematic comparison of conventional and green Pfandbriefe. Consequently, if the investor base is successfully broadened and there is a general differentiation in Pfandbrief spreads by issuer, we believe there could be a green funding advantage for DZ HYP. The issuer has also performed well in a challenging market environment with its recently placed green Pfandbrief. In our opinion, the tightening of five basis points versus initial guidance was more than just acceptable given the notable drivers of uncertainty during the book-building phase. However, even more remarkable is the allocated volume of EUR 1bn, which we would view as clear indication of how attractive the deal was but also of the appeal of green Pfandbriefe in general.

Spread overview: Pfandbriefe vs. green Pfandbriefe (EUR BMK; residual maturity ≥ 1 year)



Spread overview: Pfandbriefe vs. DZ HYP Pfandbriefe (EUR BMK; residual maturity ≥ 1 year)



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

Conclusion

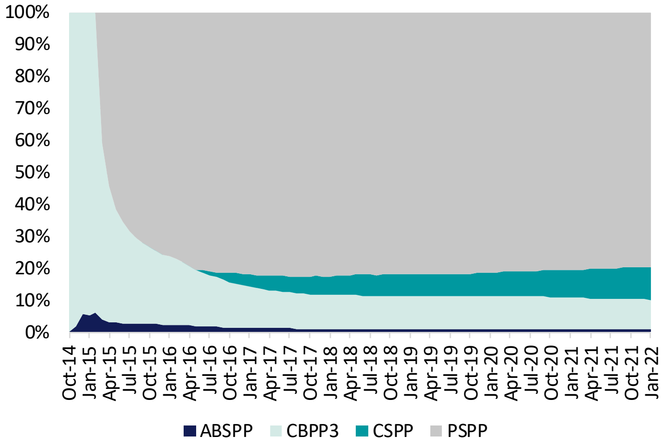
As with earlier green, social or sustainable new arrivals, we consider the inaugural green covered bond from DZ HYP as a welcome further development of the ESG sub-market. The Framework contains the usual parameters and components, and is based on the ICMA Green Bond Principles, thereby also meeting the market standard. Looking ahead to the expected further developments, including as a result of the EU Taxonomy, the issuer refers to necessary further developments in the Green Bond Framework in the future. We see a challenge here for all issuers that should not be underestimated. Unsurprisingly, DZ HYP’s green covered bond also complies with the vdp minimum requirements for green Pfandbriefe. While the current size of the issuer’s green cover pool is already set to facilitate the issue of further green Pfandbriefe, in the long term we see a notable chance for generic growth in the green EUR benchmark sub-segment, simply due to DZ HYP’s size and the volume of outstanding EUR benchmarks. With regard to individual issues, DZ HYP should also tend to be able to generate a funding advantage through ESG issues.

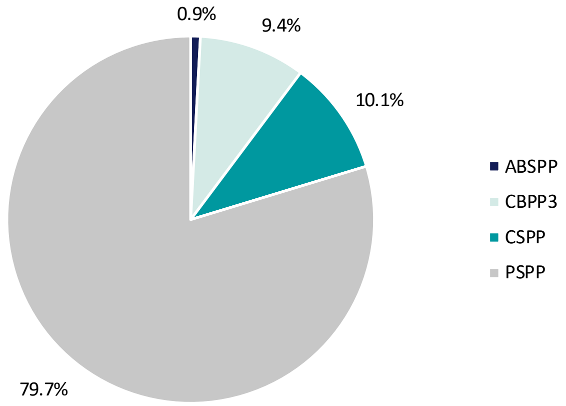
ECB tracker

Asset Purchase Programme (APP)

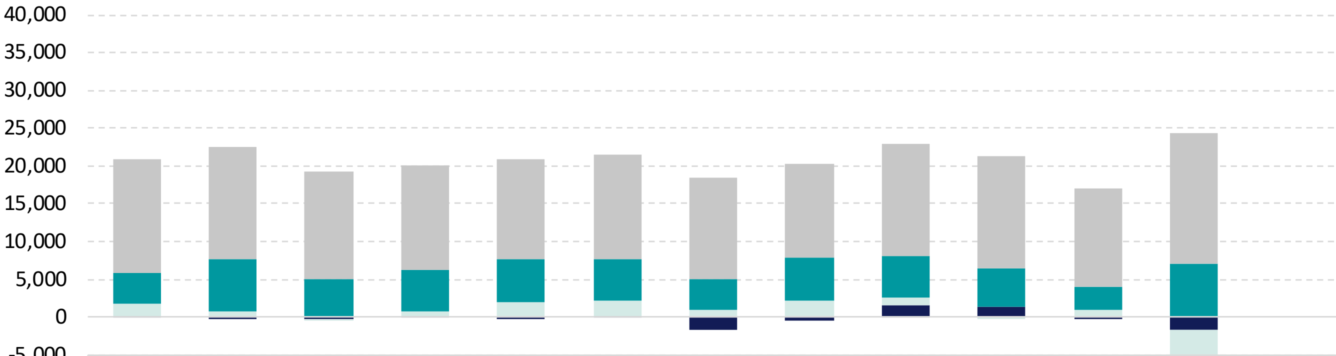
	ABSPP	CBPP3	CSPP	PSPP	APP
Dec-21	28,403	298,167	309,676	2,487,136	3,123,382
Jan-22	26,740	294,407	316,646	2,504,428	3,142,221
Δ	-1,663	-3,761	+6,970	+17,292	+18,838

Portfolio structure





Monthly net purchases (in EURm)

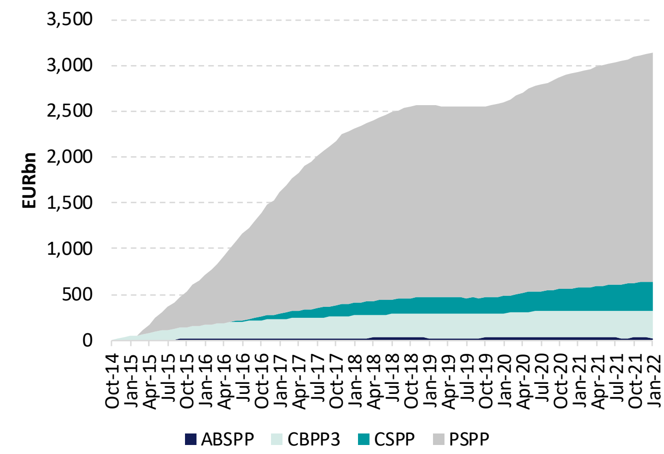


	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831
PSPP	15,129	14,955	14,186	13,973	13,320	13,943	13,563	12,423	15,038	14,815	12,989	17,292	171,626
CSPP	4,064	6,929	5,015	5,394	5,602	5,502	3,936	5,590	5,481	5,142	3,007	6,970	62,632
CBPP3	1,539	684	-5	686	2,037	2,011	999	2,184	1,008	-12	942	-3,761	8,312
ABSPP	183	-7	-278	88	-319	141	-1,749	-538	1,490	1,255	-342	-1,663	-1,739

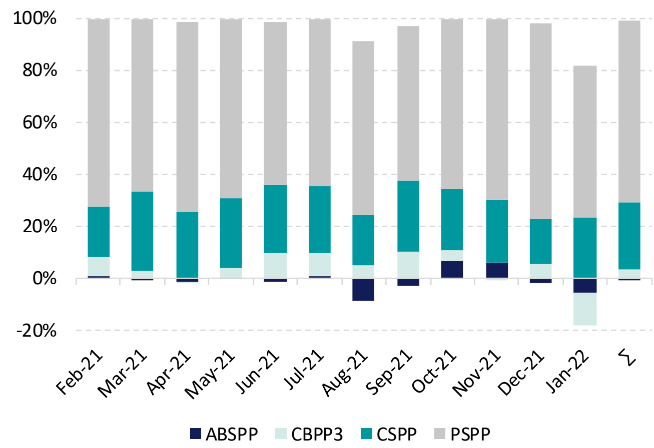
Source: ECB, NORD/LB Markets Strategy & Floor Research

NORD/LB

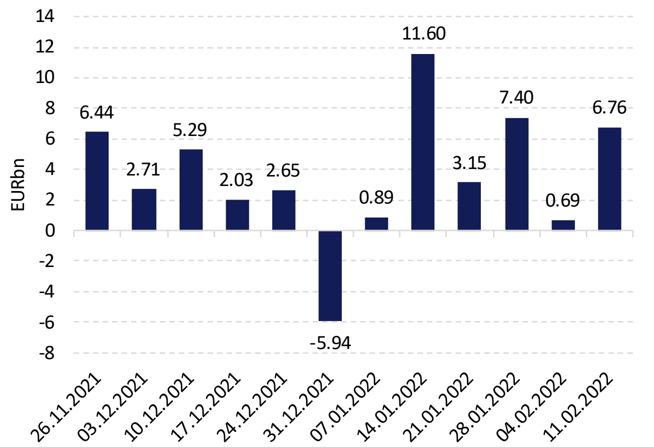
Portfolio development



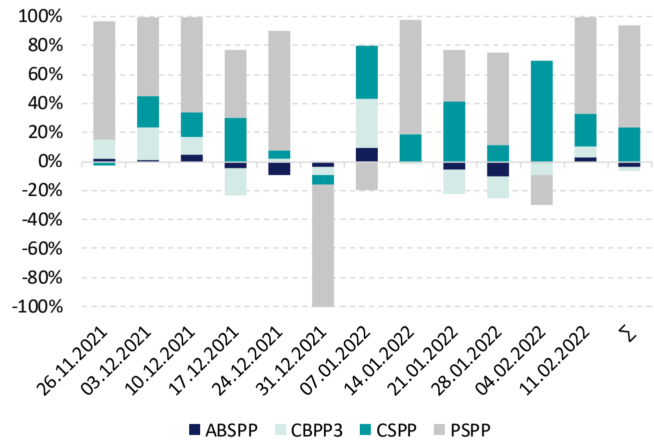
Distribution of monthly purchases



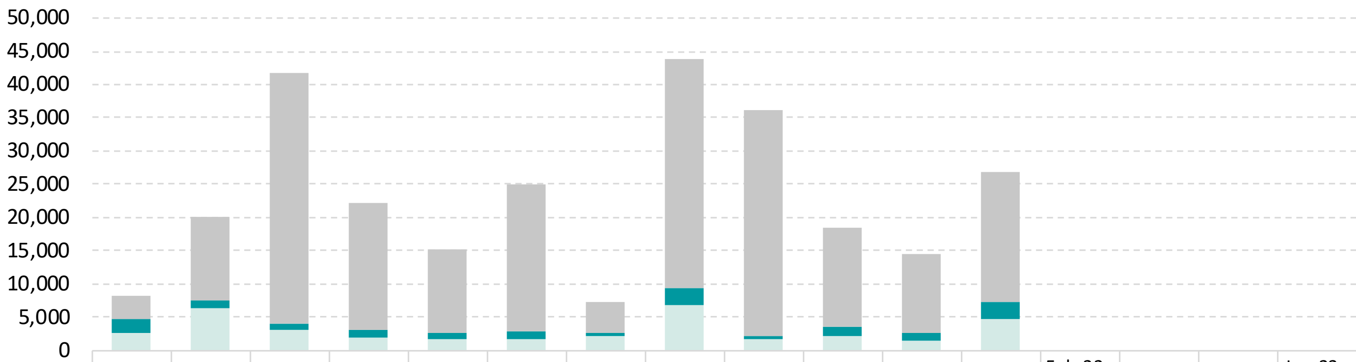
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

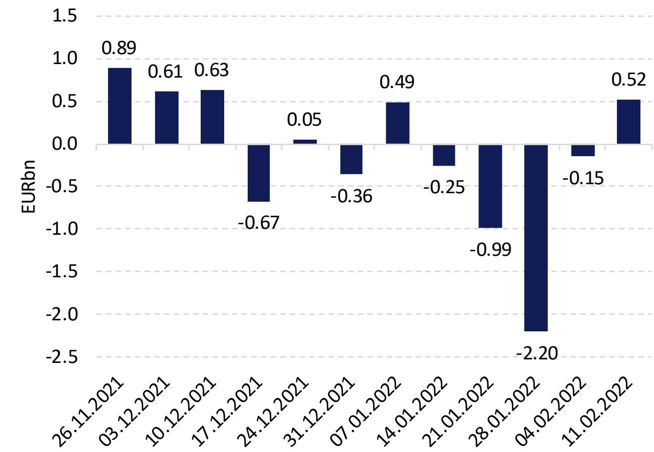


	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-22 - Jan-23	2021	2022	Jan-23 - Jan-23
APP	8,242	20,052	41,644	22,115	15,237	25,034	7,348	43,851	36,197	18,442	14,580	26,734	279,476	235,771	285,454	296,544
PSPP	3,625	12,603	37,532	18,999	12,638	22,218	4,841	34,554	34,003	14,945	12,016	19,469	227,443	188,494	228,880	228,880
CSPP	2,093	1,030	1,093	1,250	1,017	1,198	280	2,431	549	1,332	1,156	2,482	15,911	17,134	15,435	15,435
CBPP3	2,524	6,419	3,019	1,866	1,582	1,618	2,227	6,866	1,645	2,165	1,408	4,783	36,122	30,143	41,139	41,139
ABSPP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,090

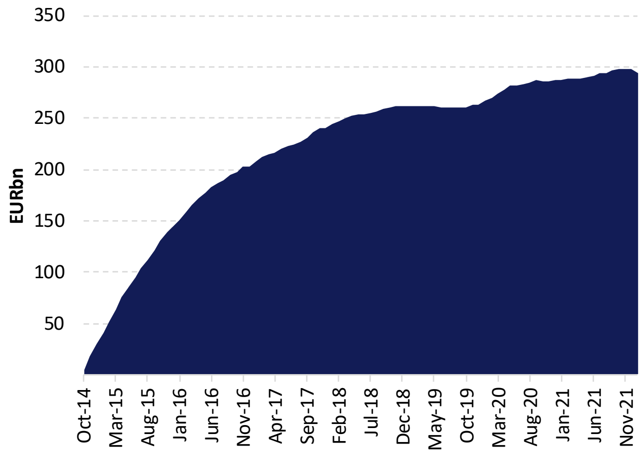
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Covered Bond Purchase Programme 3 (CBPP3)

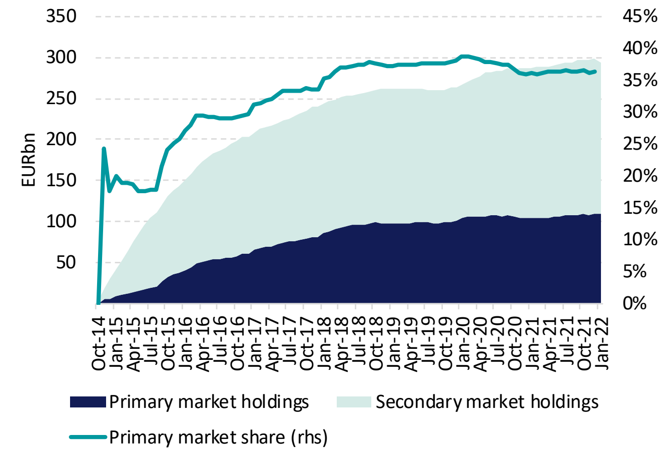
Weekly purchases



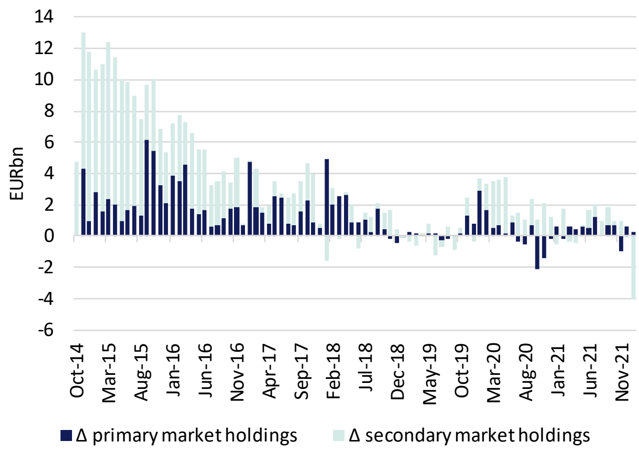
Development of CBPP3 volume



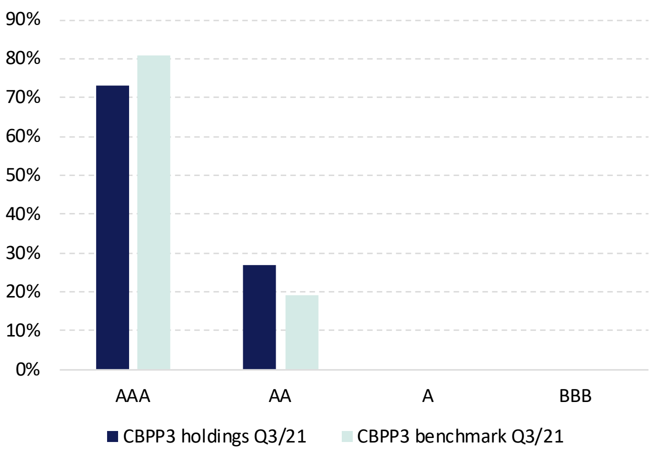
Primary and secondary market holdings



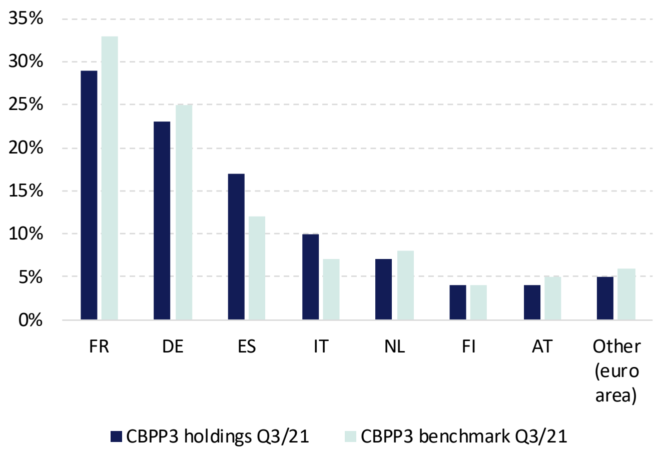
Change of primary and secondary market holdings



Distribution of CBPP3 by credit rating



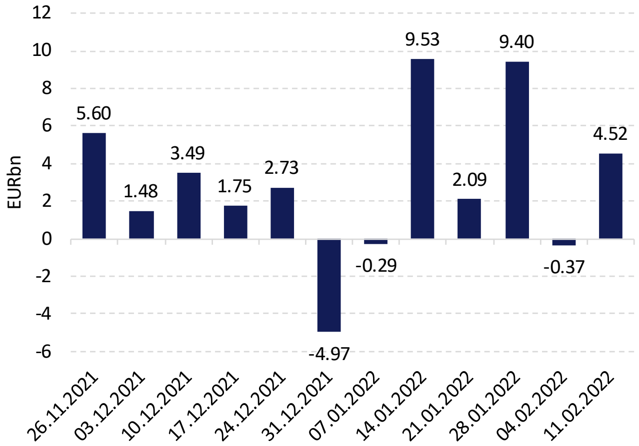
Distribution of CBPP3 by country of risk



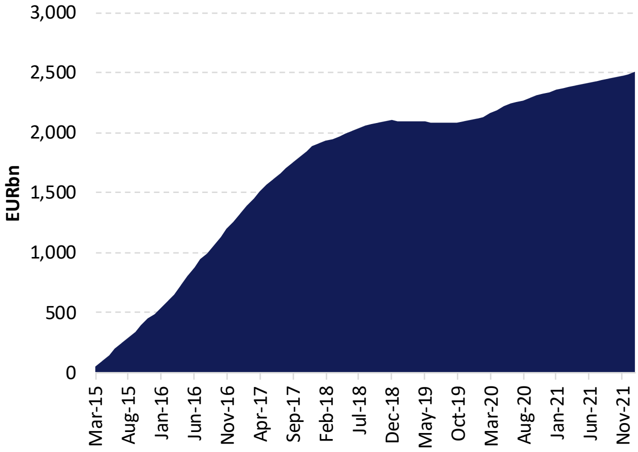
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



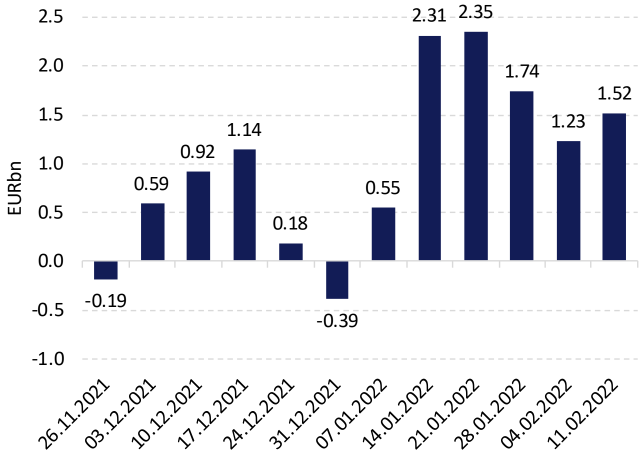
Overall distribution of PSPP buying at month-end

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%	73,533	71,534	1,999	7.5	7.6	-0.1
BE	3.4%	92,162	89,041	3,121	8.0	10.2	-2.2
CY	0.2%	4,231	5,259	-1,028	9.9	8.8	1.1
DE	24.3%	636,820	644,277	-7,457	6.6	7.6	-1.0
EE	0.3%	412	6,885	-6,473	9.2	7.5	1.7
ES	11.0%	304,289	291,438	12,851	8.0	8.4	-0.4
FI	1.7%	42,029	44,893	-2,864	6.9	7.7	-0.8
FR	18.8%	522,717	499,173	23,544	7.2	8.1	-0.9
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	41,707	41,386	321	8.5	10.1	-1.6
IT	15.7%	435,606	415,201	20,405	7.1	7.9	-0.8
LT	0.5%	5,595	14,145	-8,550	10.2	10.6	-0.4
LU	0.3%	3,900	8,051	-4,151	5.6	7.2	-1.7
LV	0.4%	3,386	9,523	-6,137	11.3	10.4	0.9
MT	0.1%	1,363	2,563	-1,200	9.5	9.2	0.3
NL	5.4%	123,586	143,229	-19,643	7.7	9.0	-1.4
PT	2.2%	51,757	57,202	-5,445	7.0	7.2	-0.2
SI	0.4%	10,474	11,768	-1,294	9.9	10.2	-0.3
SK	1.1%	17,208	27,990	-10,782	8.2	8.3	-0.1
SNAT	10.0%	277,625	264,840	12,785	7.7	8.9	-1.2
Total / Avg.	**100.0%**	**2,648,399**	**2,648,399**	**0**	**7.3**	**8.2**	**-0.9**

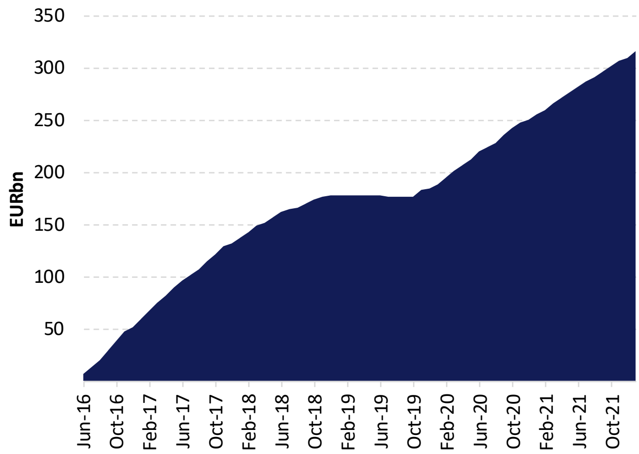
[1] Based on the ECB capital key, adjusted to include supras and the disqualification of Greece
[2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q1/2021)
Source: ECB, NORD/LB Markets Strategy & Floor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

Corporate Sector Purchase Programme (CSPP)

Weekly purchases

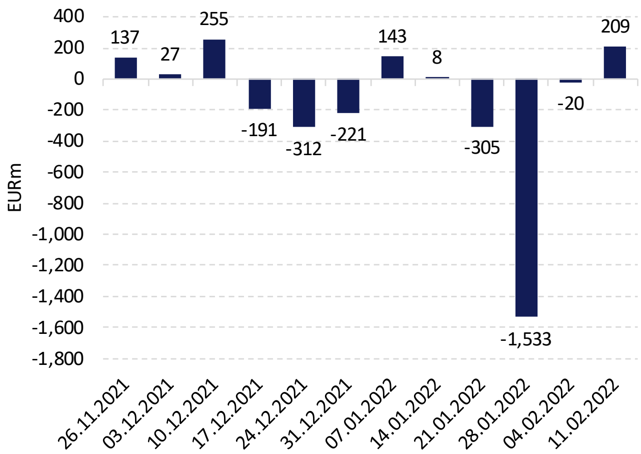


Development of CSPP volume

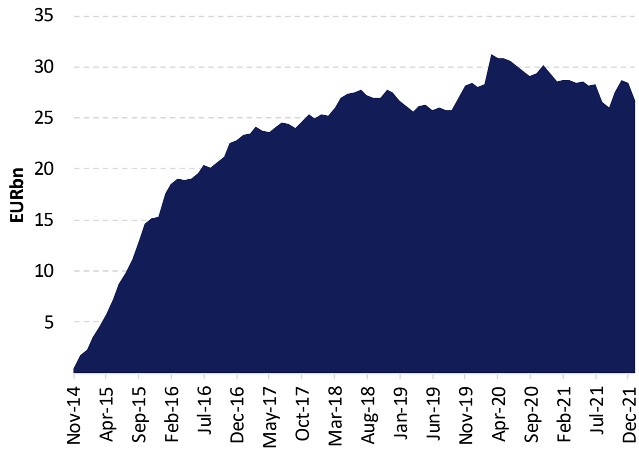


Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



Development of ABSPP volume



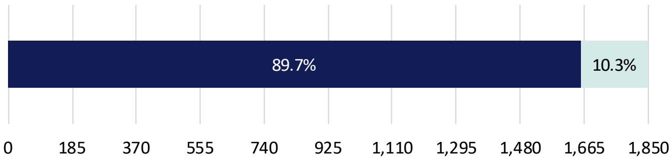
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

	PEPP
Dec-21	1,597,565
Jan-22	1,647,678
Δ	+50,113

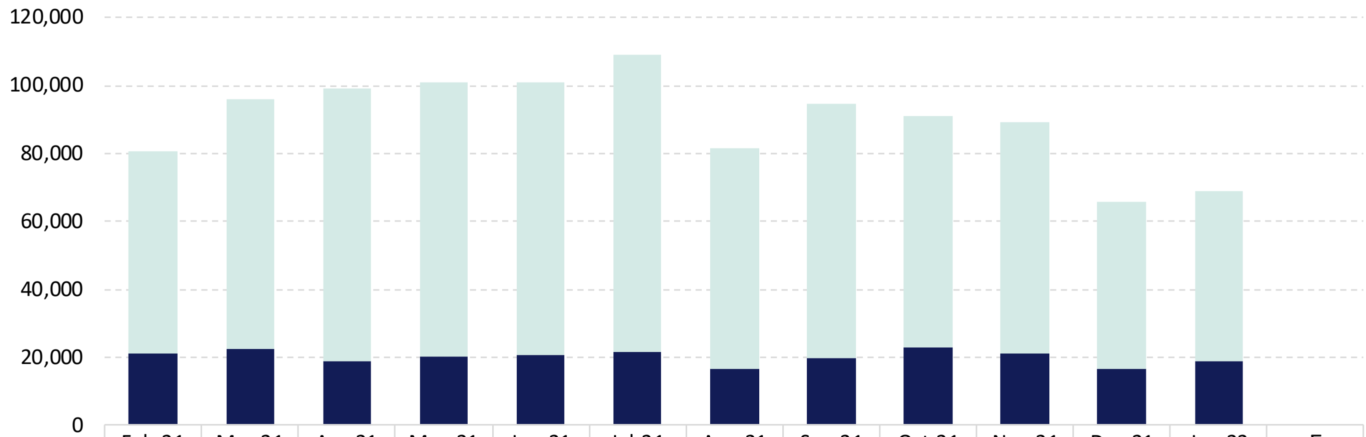
Volume already invested (in EURbn)



Estimated portfolio development

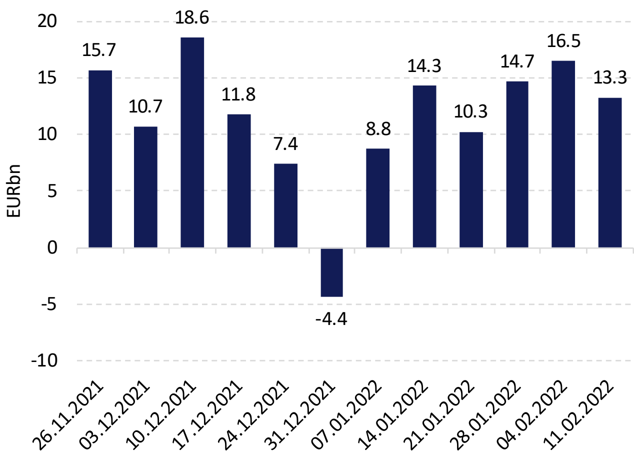
Assumed pace of purchases	Weekly net purchase volume	PEPP (theoretically) limit hit in ...
Average weekly net purchase volume so far	EUR 16.9bn	11 weeks (29.04.2022)

Monthly net purchases (in EURm)

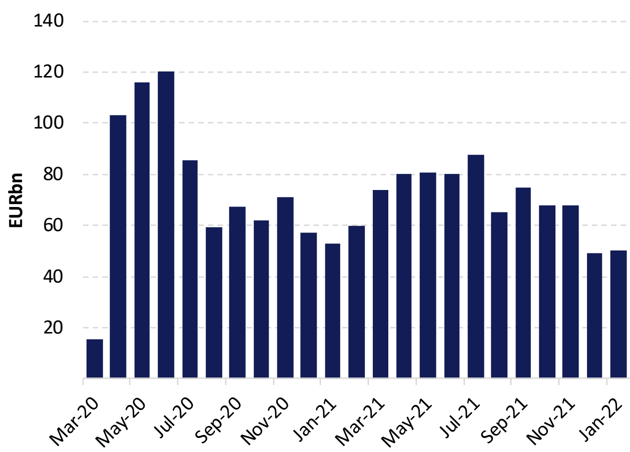


	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
∑	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	1,078,29
PEPP	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	837,467
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831

Weekly purchases



Development of PEPP volume

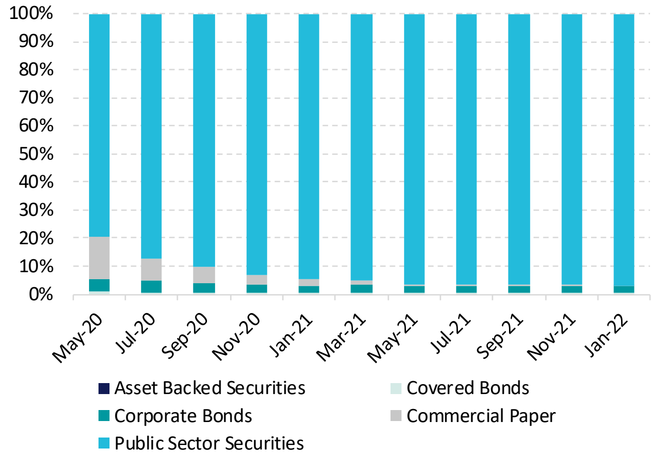


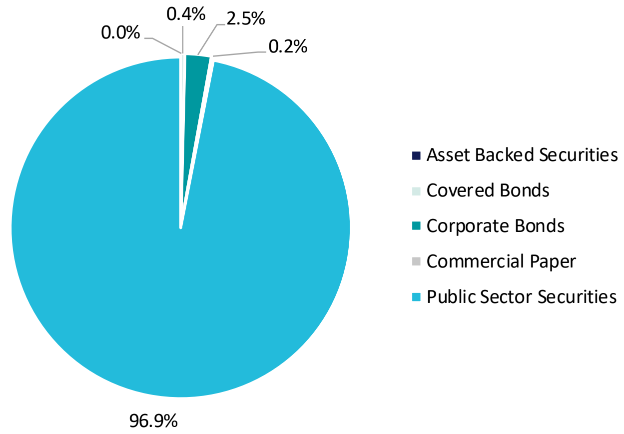
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Holdings under the PEPP (in EURm)

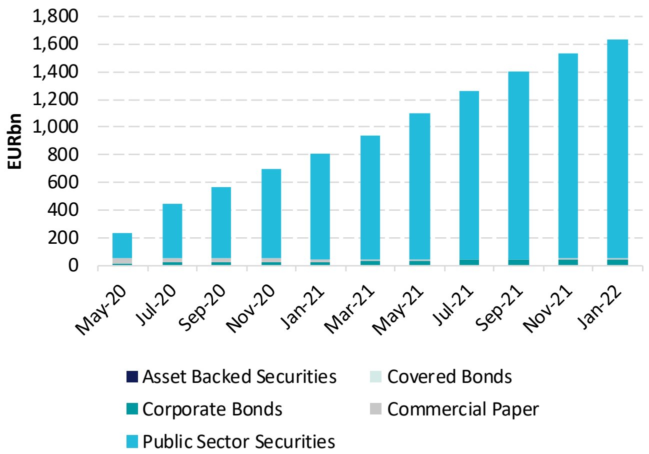
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Nov-21	0	6,079	39,871	4,032	1,485,526	1,535,508
Jan-22	0	6,073	40,301	3,857	1,580,547	1,630,779
Δ	0	0	+467	-172	+99,193	+99,488

Portfolio structure

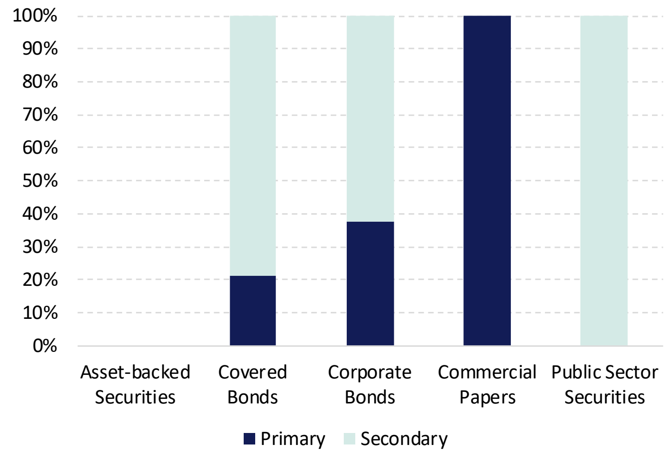




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP

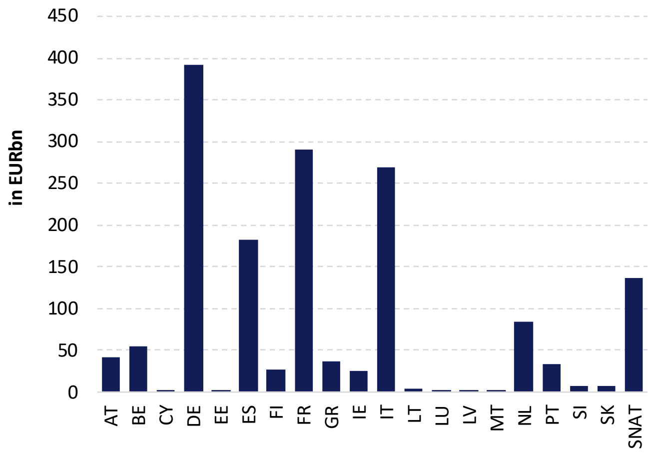
Jan-22	Asset-backed securities		Covered bonds		Corporate bonds		Commercial paper	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Holdings in EURm	0	0	1,298	4,775	15,101	25,200	3,857	0
Share	0.0%	0.0%	21.4%	78.6%	37.5%	62.5%	100.0%	0.0%

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

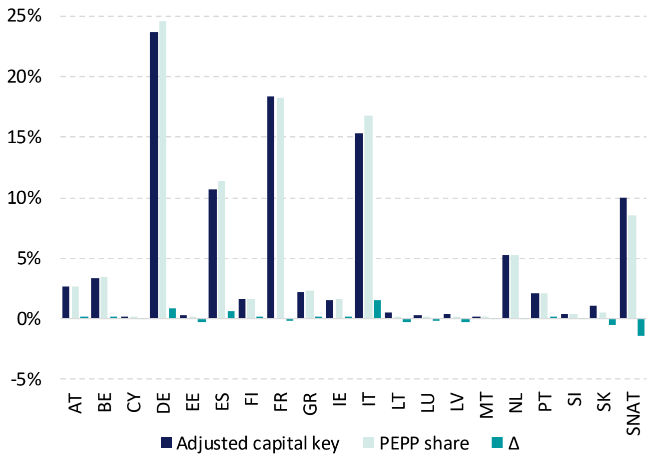
Breakdown of public sector securities under the PEPP

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

Distribution of public sector assets by jurisdiction



Deviations from the adjusted distribution key



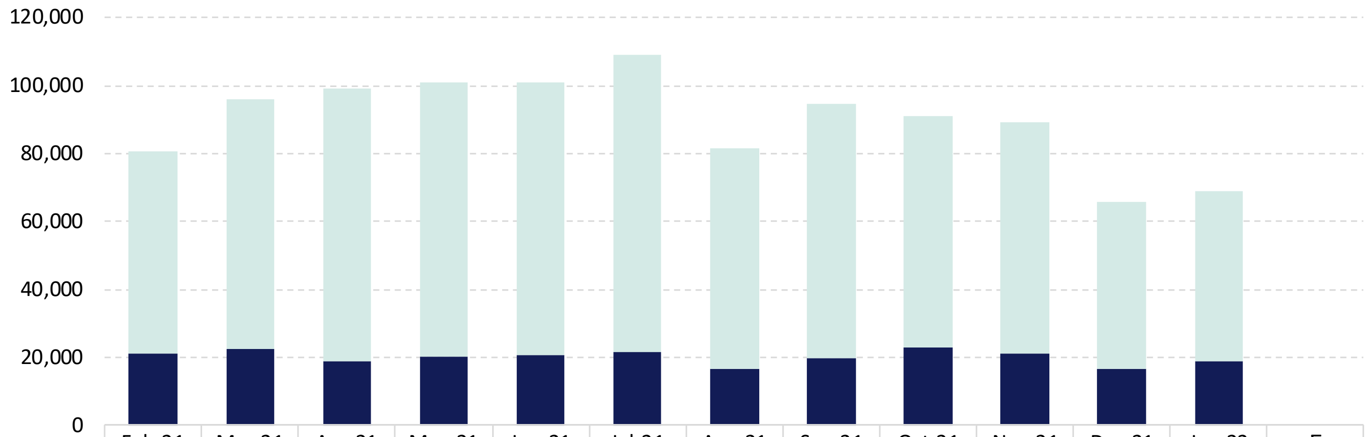
[1] Based on the ECB capital key, adjusted to include supras [2] Based on the adjusted distribution key
[3] Weighted average time to maturity of the bonds eligible for purchasing under the PEPP
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Aggregated purchase activity under APP and PEPP

Holdings (in EURm)

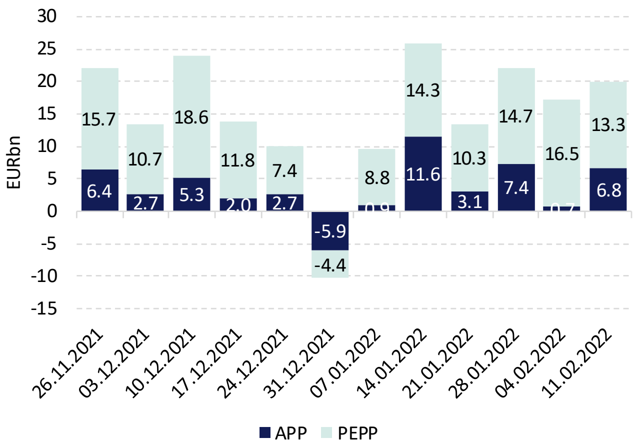
	APP	PEPP	APP & PEPP
Dec-21	3,123,382	1,597,565	4,720,947
Jan-22	3,142,221	1,647,678	4,789,899
Δ	+18,838	+50,113	+68,951

Monthly net purchases (in EURm)

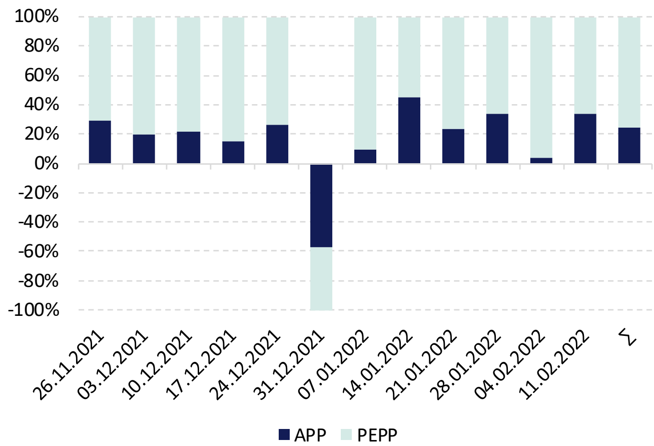


	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	∑
∑	80,829	96,082	99,036	100,841	100,808	109,154	81,799	94,710	90,872	89,245	65,971	68,951	1,078,29
PEPP	59,914	73,521	80,118	80,700	80,168	87,557	65,050	75,051	67,855	68,045	49,375	50,113	837,467
APP	20,915	22,561	18,918	20,141	20,640	21,597	16,749	19,659	23,017	21,200	16,596	18,838	240,831

Weekly purchases



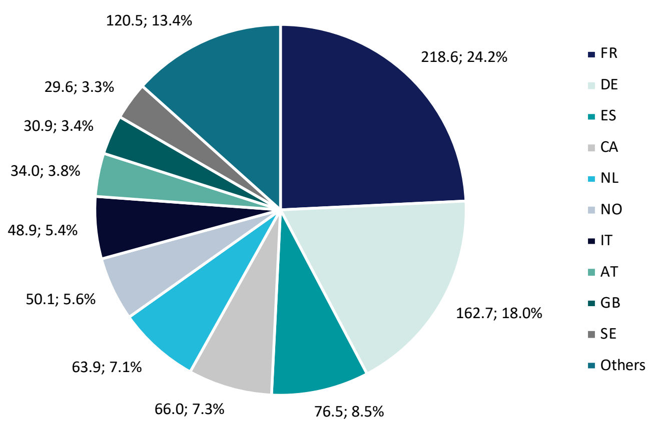
Distribution of weekly purchases



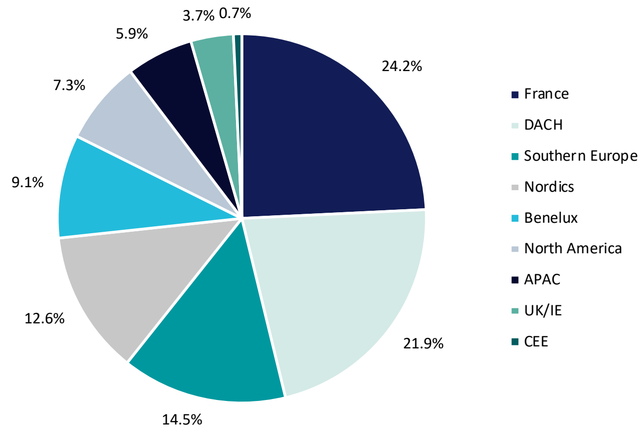
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

Charts & Figures
Covered Bonds

EUR benchmark volume by country (in EURbn)



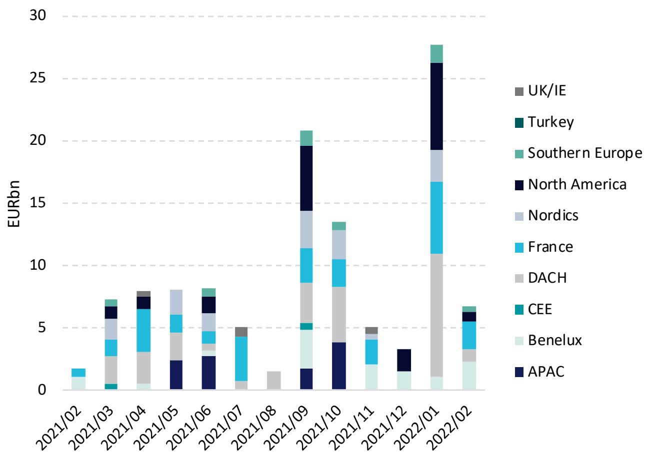
EUR benchmark volume by region (in EURbn)



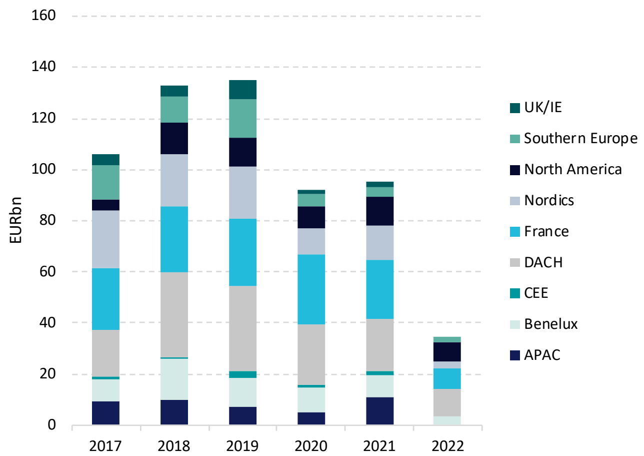
Top-10 jurisdictions

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	218.6	210	11	0.93	10.1	5.6	0.81
2	DE	162.7	239	17	0.62	8.4	4.6	0.41
3	ES	76.5	62	5	1.13	11.7	3.8	1.79
4	CA	66.0	55	0	1.16	6.0	3.3	0.21
5	NL	63.9	66	0	0.91	11.6	7.8	0.71
6	NO	50.1	58	9	0.86	7.4	4.0	0.38
7	IT	48.9	58	1	0.81	9.3	4.5	1.25
8	AT	34.0	63	2	0.54	9.9	6.3	0.53
9	GB	30.9	37	1	0.86	8.5	3.4	0.91
10	SE	29.6	36	0	0.82	7.6	3.3	0.41

EUR benchmark issue volume by month



EUR benchmark issue volume by year



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

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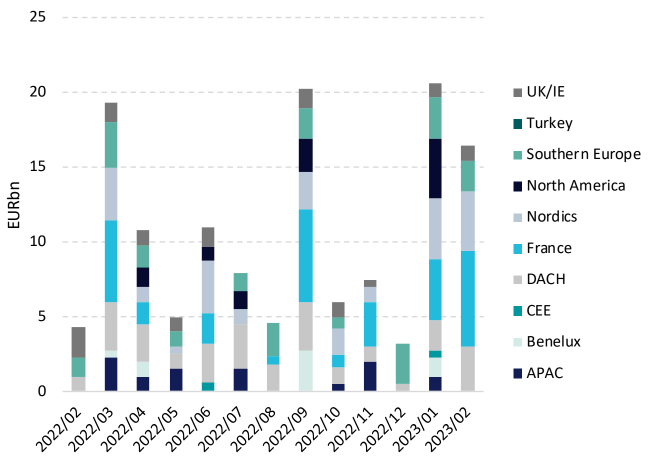
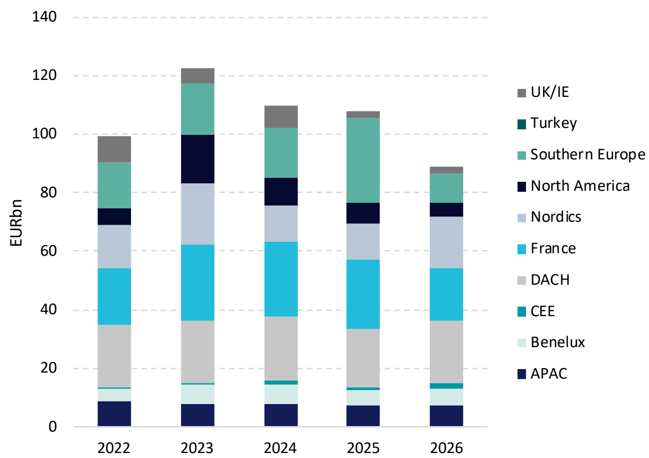
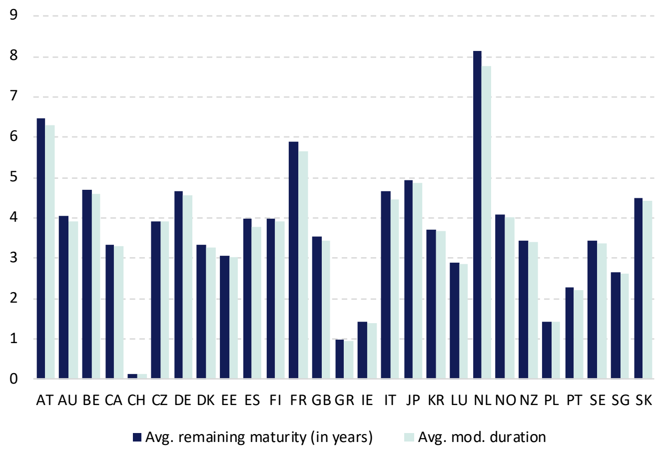
EUR benchmark maturities by month



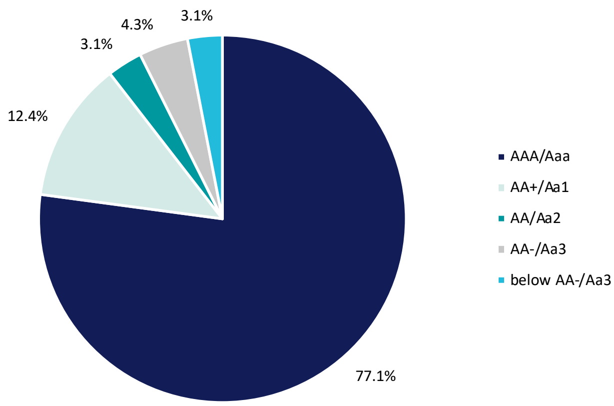
EUR benchmark maturities by year



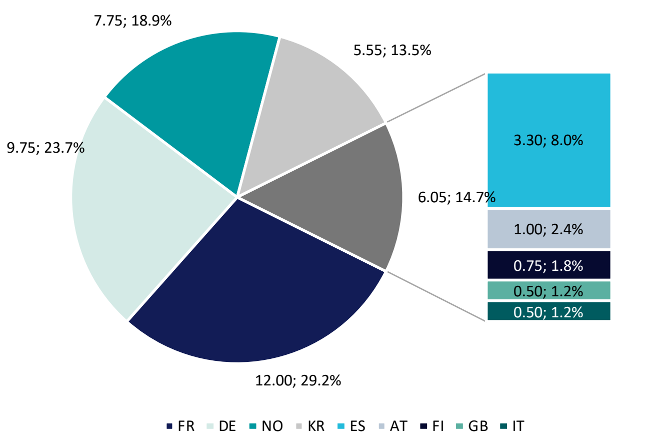
Modified duration and time to maturity by country



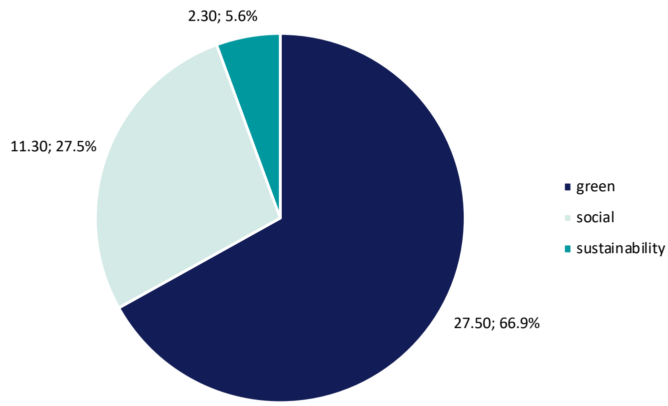
Rating distribution (volume weighted)



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

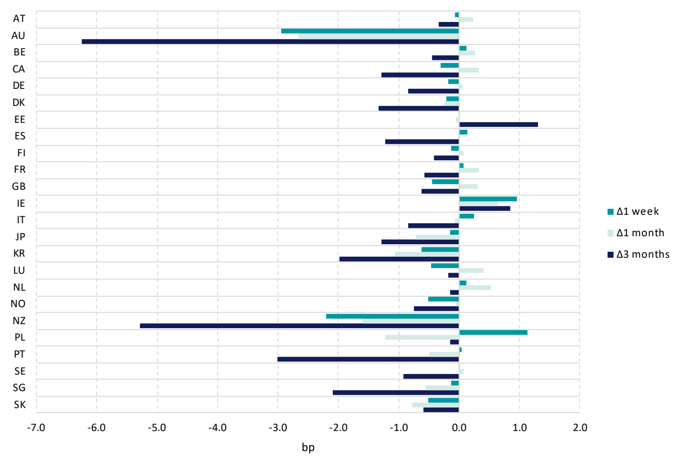


EUR benchmark volume (ESG) by type (in EURbn)

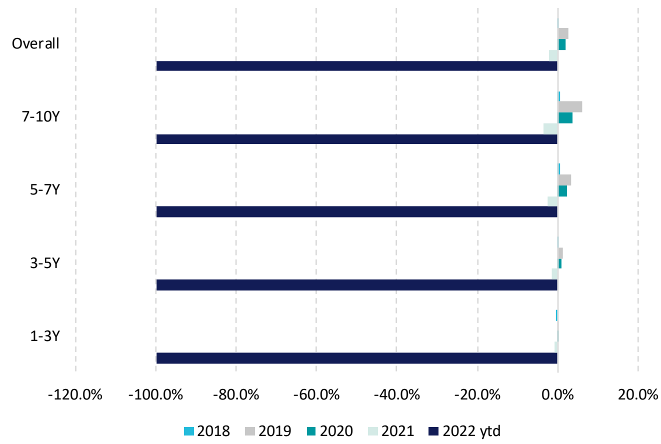


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

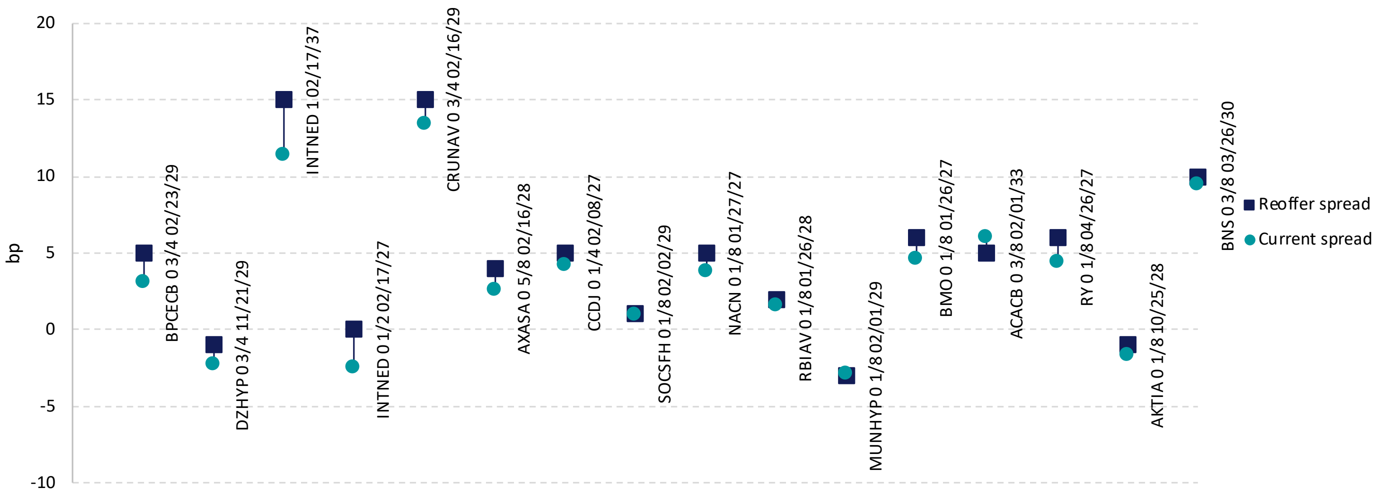
Spread development by country



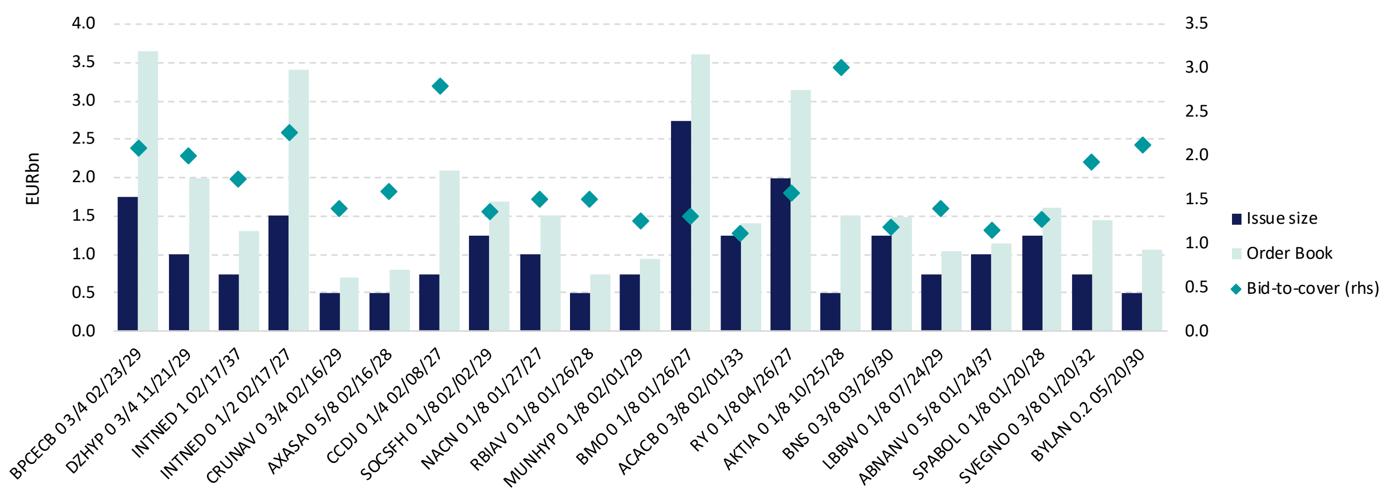
Covered bond performance (Total return)



Spread development (last 15 issues)



Order books (last 15 issues)

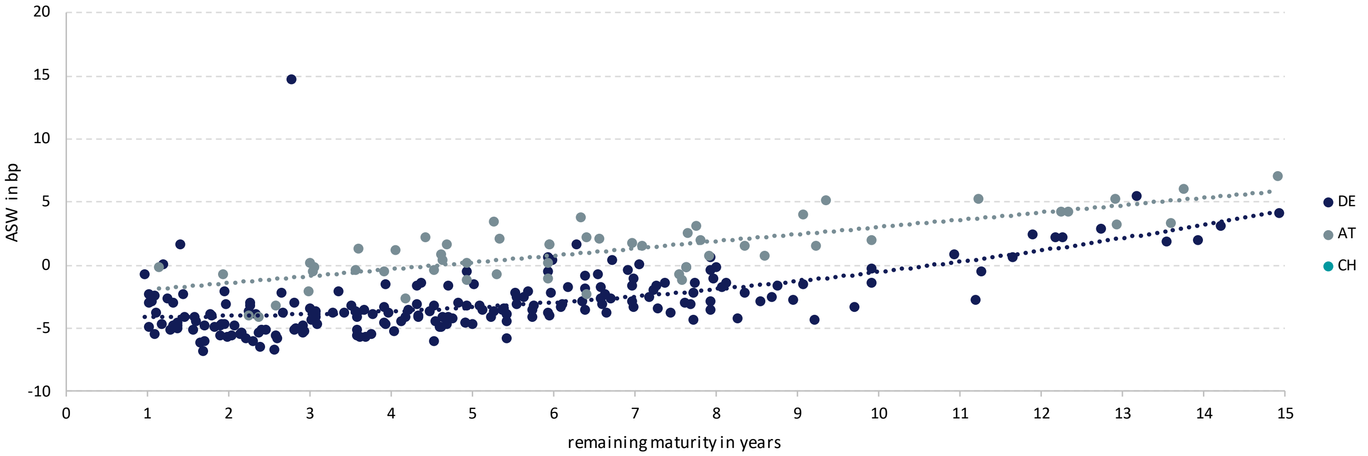


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

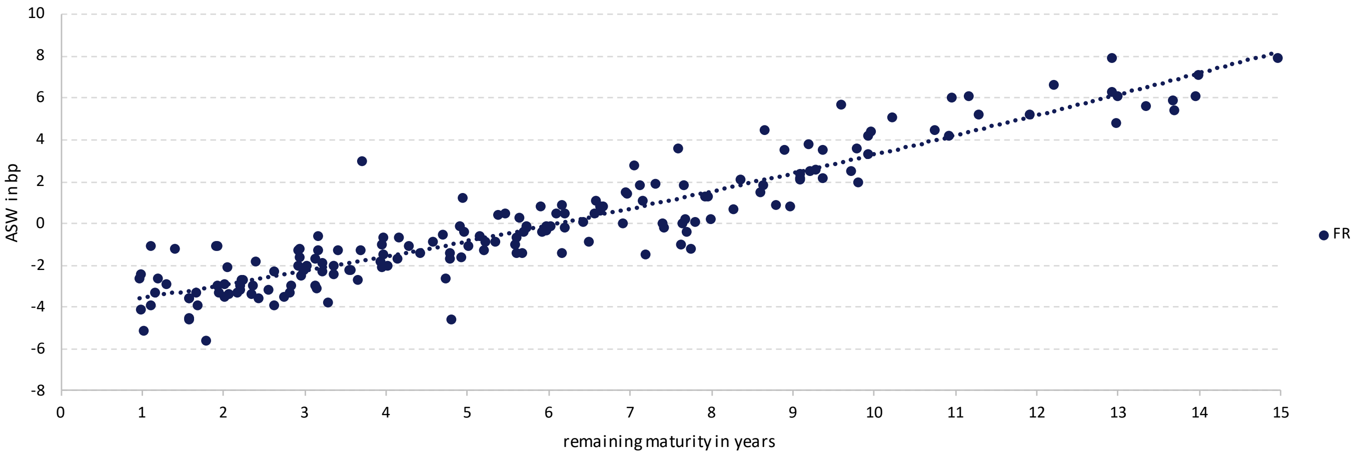
NORD/LB

Spread overview[1]

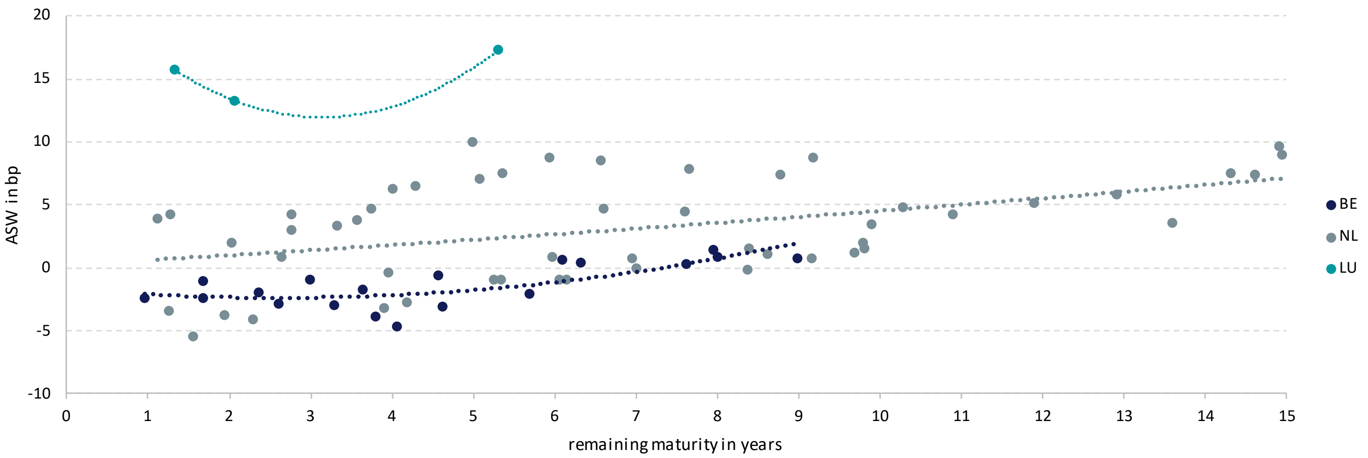
DACH



France

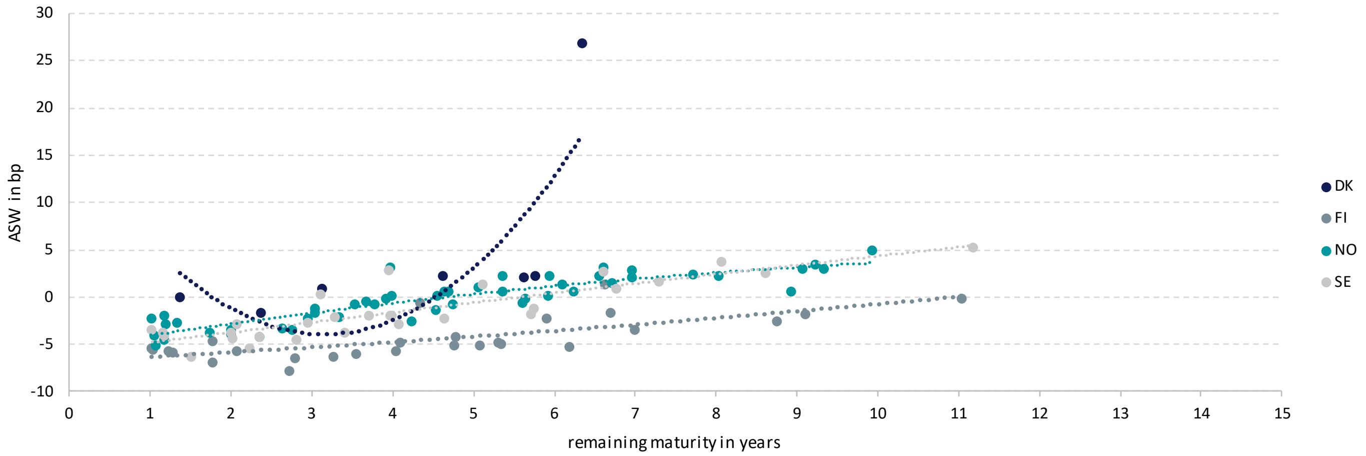


Benelux

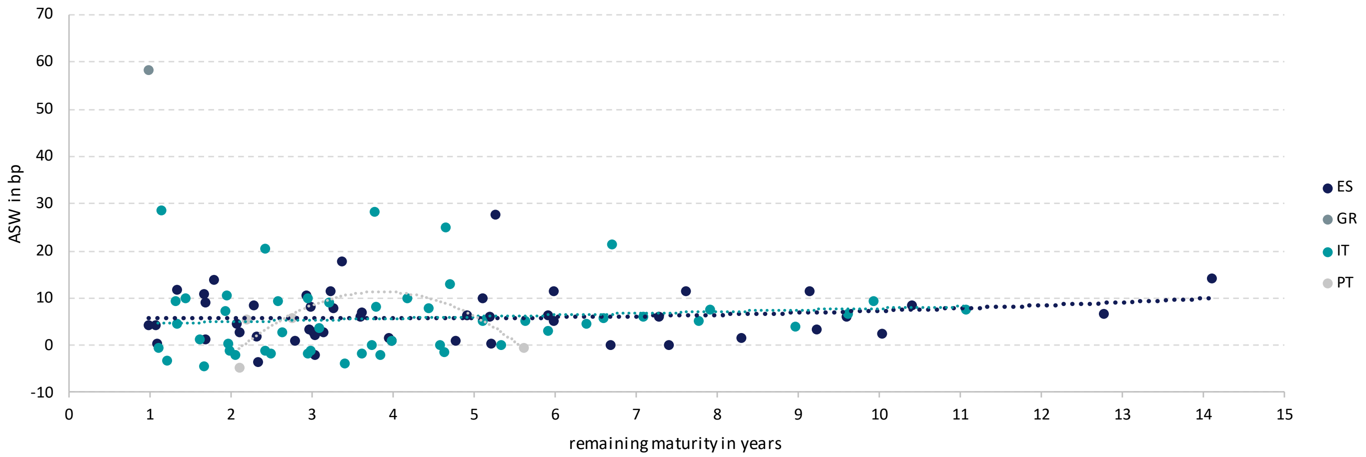


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research [1]Time to maturity 1 ≤ y ≤ 15

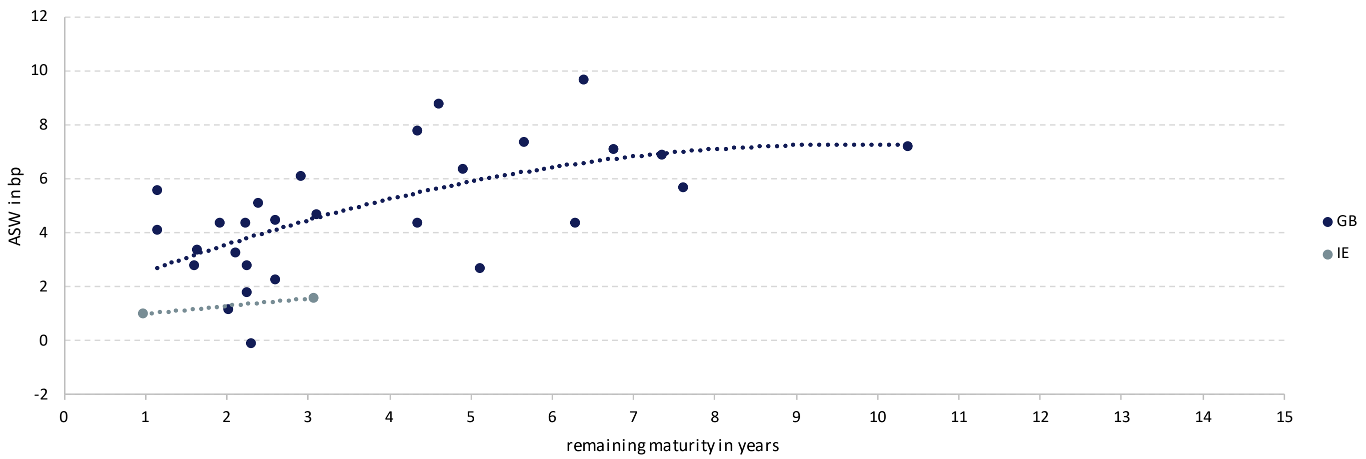
Nordics



Southern Europe

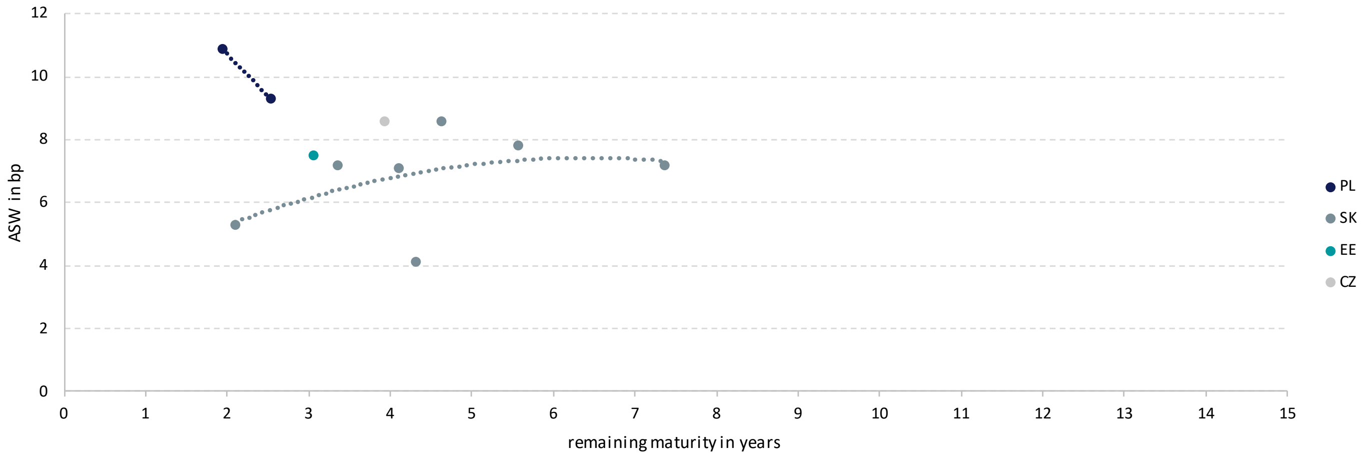


UK/IE

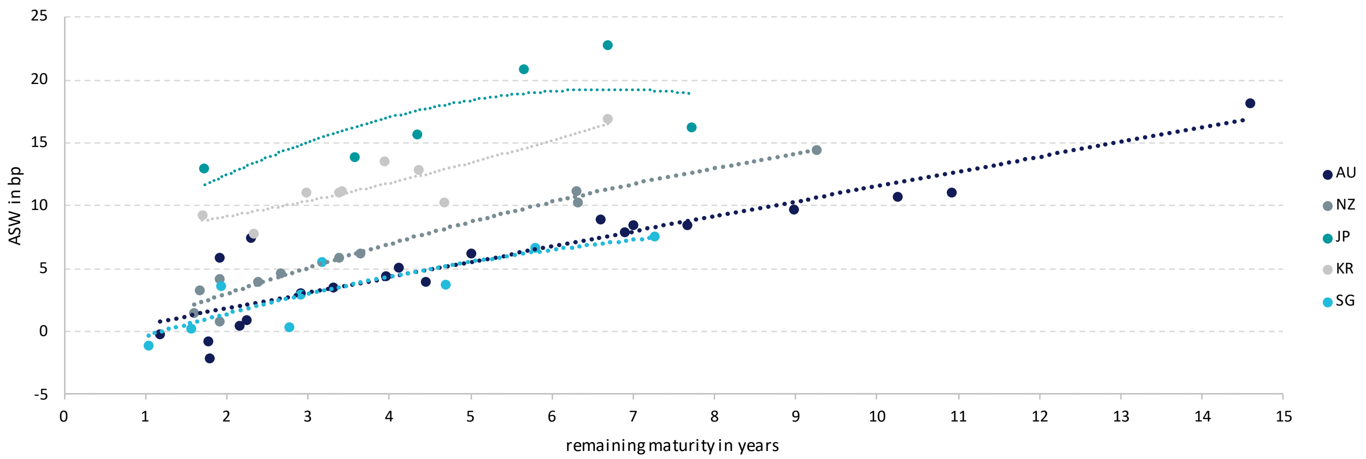


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

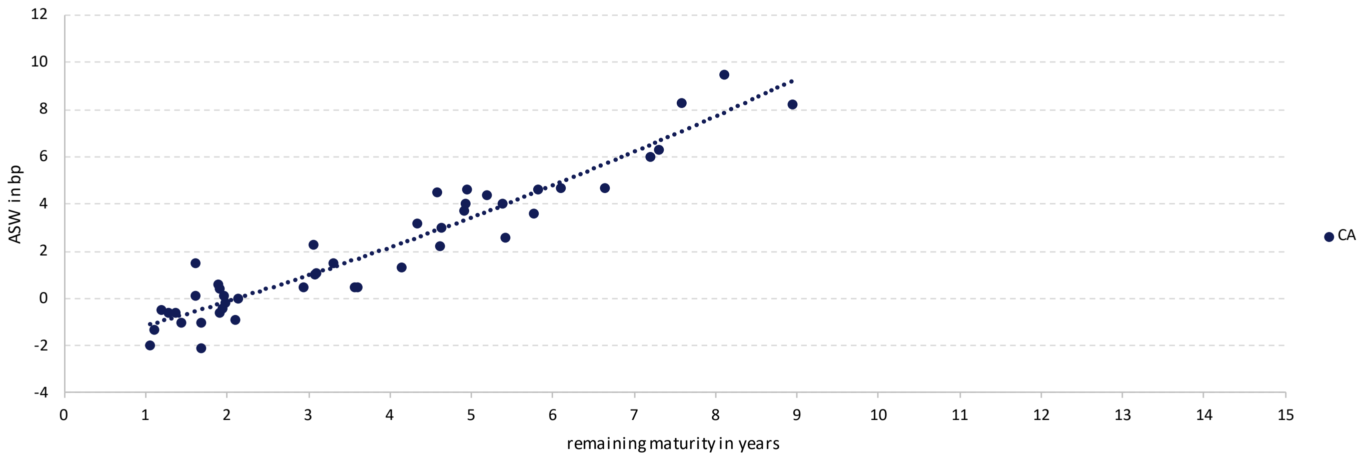
CEE



APAC



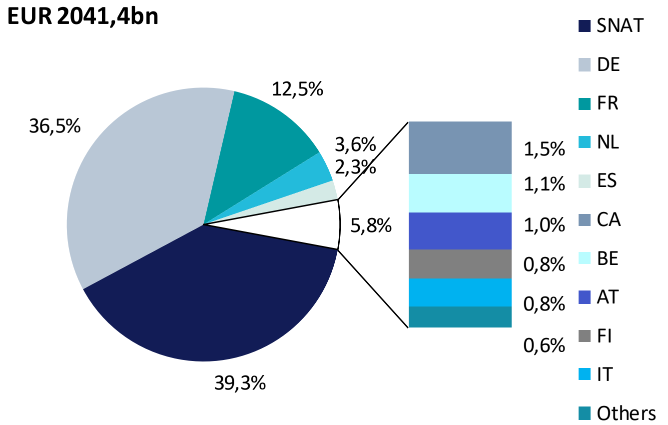
North America



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

Charts & Figures
SSA/Public Issuers

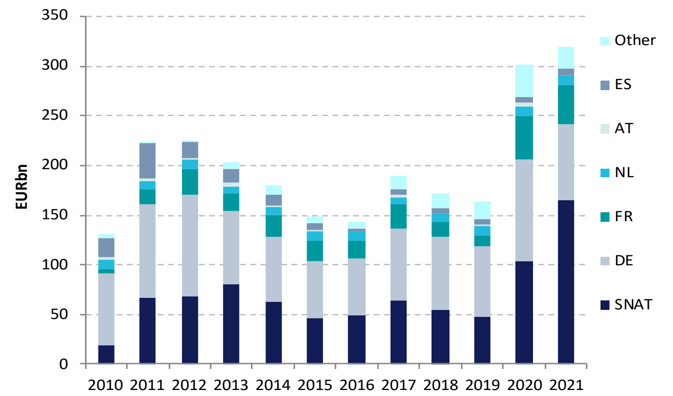
Outstanding volume (bmk)



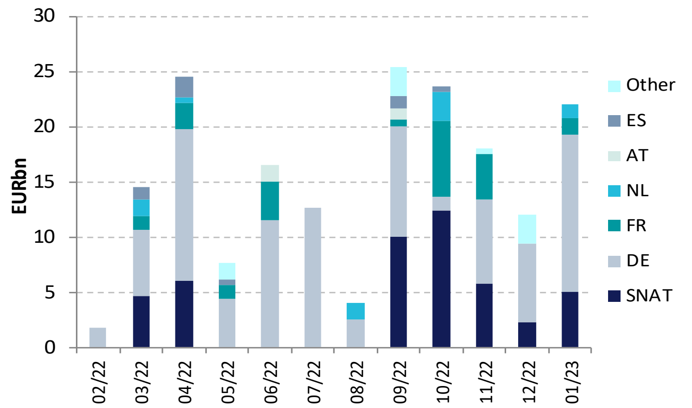
Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	801,4	197	4,1	8,6
DE	744,4	575	1,3	6,8
FR	255,3	174	1,5	6,5
NL	74,2	69	1,1	6,6
ES	46,8	59	0,8	4,9
CA	30,7	21	1,5	5,4
BE	21,7	25	0,9	13,5
AT	21,2	23	0,9	4,8
FI	17,1	21	0,8	6,1
IT	16,8	20	0,8	5,4

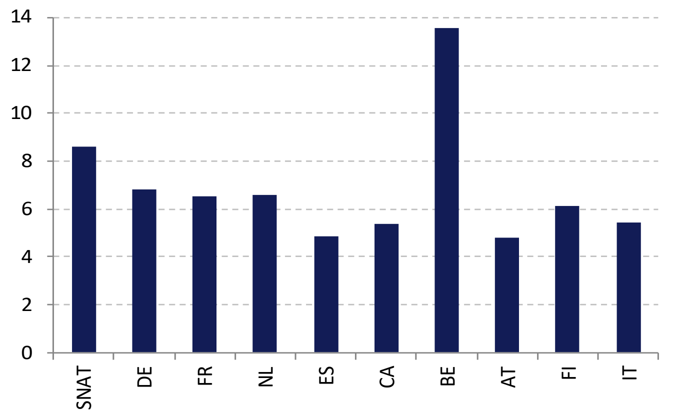
Issue volume by year (bmk)



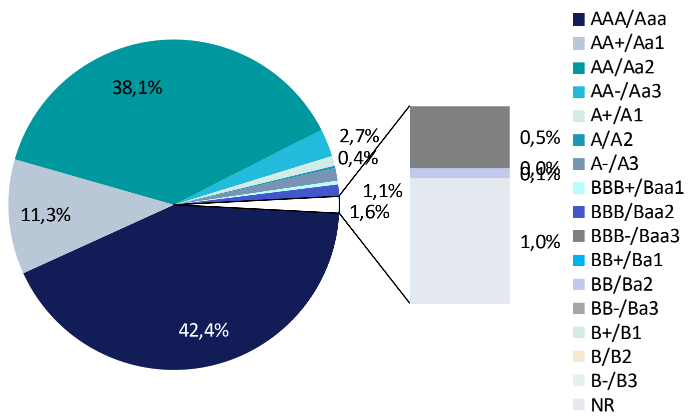
Maturities next 12 months (bmk)



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



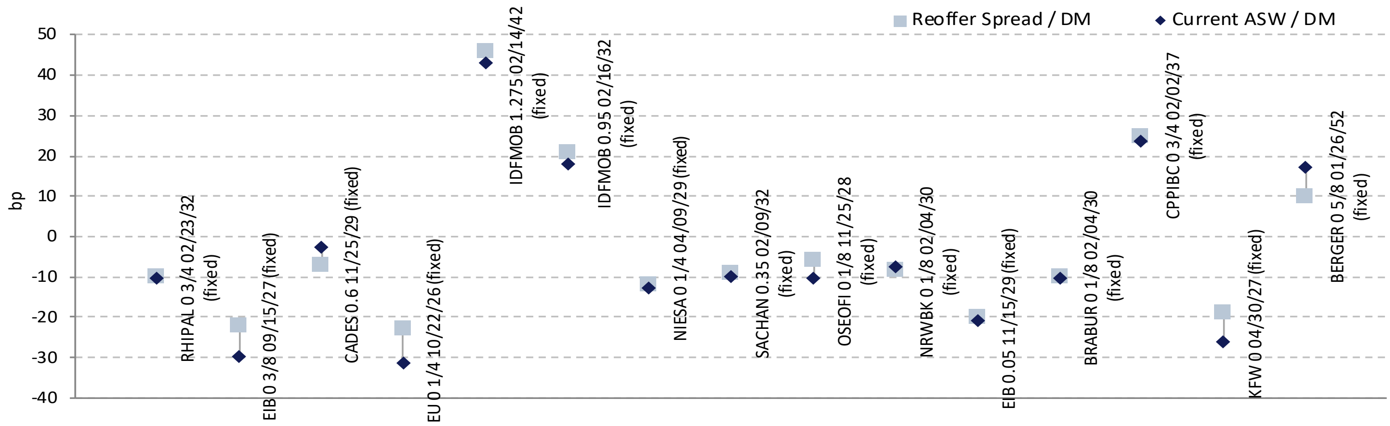
Rating distribution (vol. weighted)



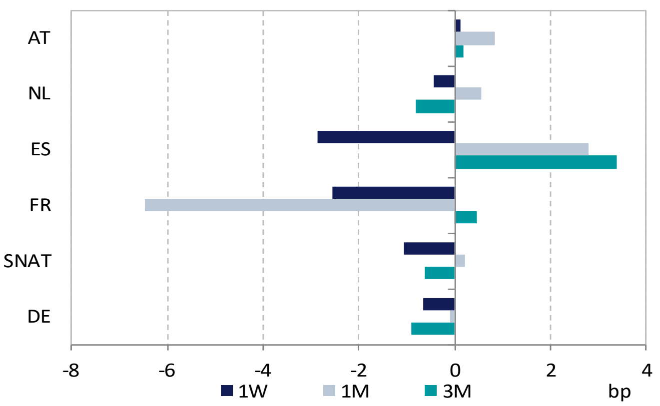
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

NORD/LB

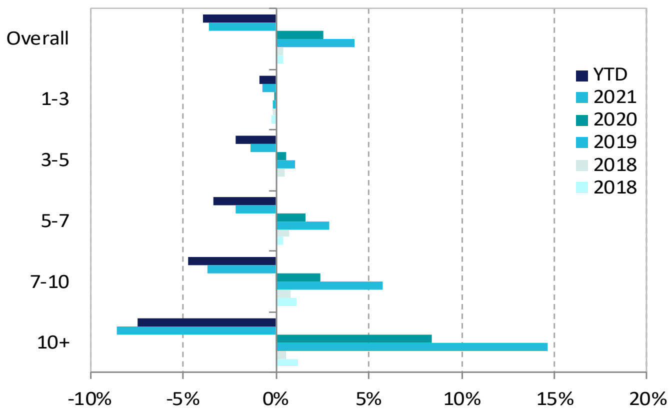
Spread development (last 15 issues)



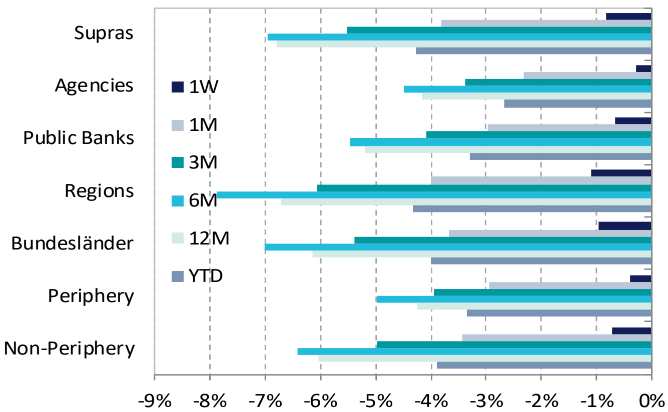
Spread development by country



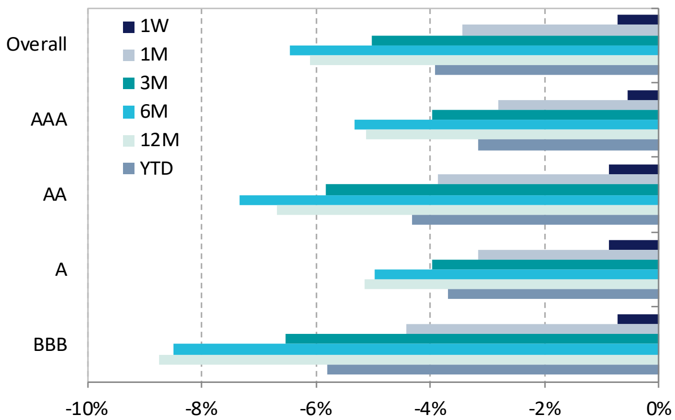
Performance (total return)



Performance (total return) by regions

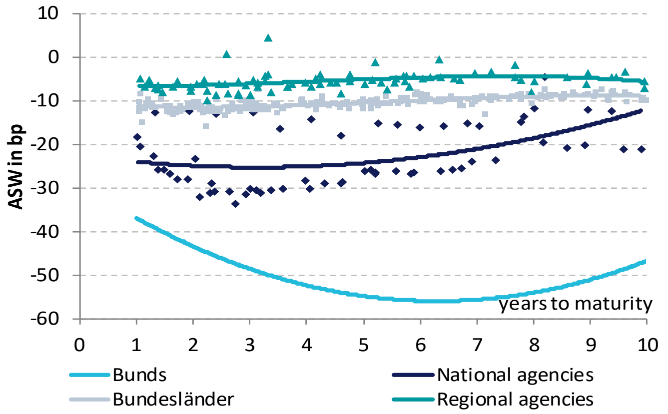


Performance (total return) by rating

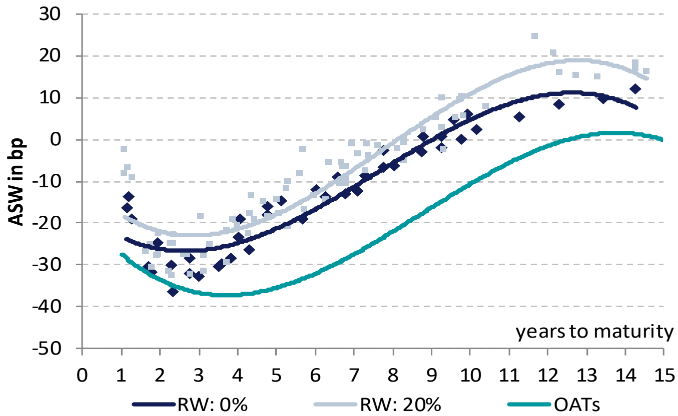


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

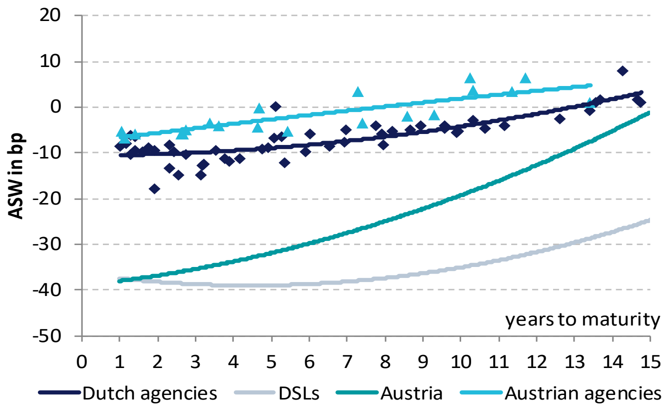
Germany (by segments)



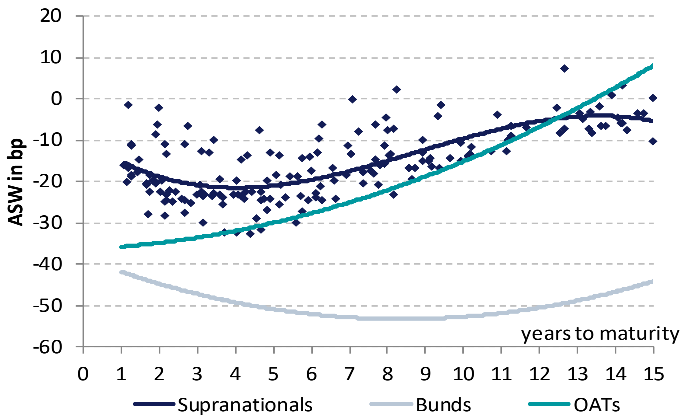
France (by risk weight)



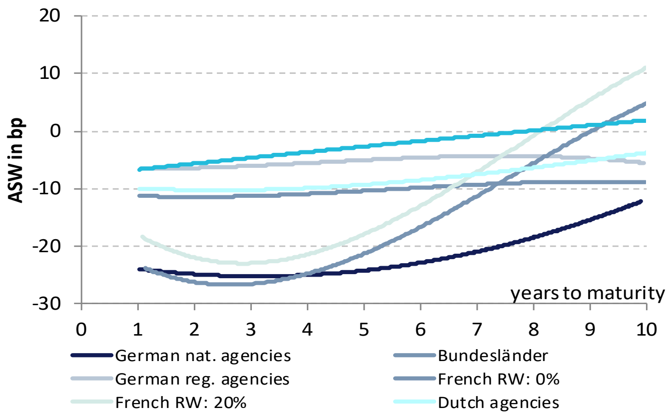
Netherlands & Austria



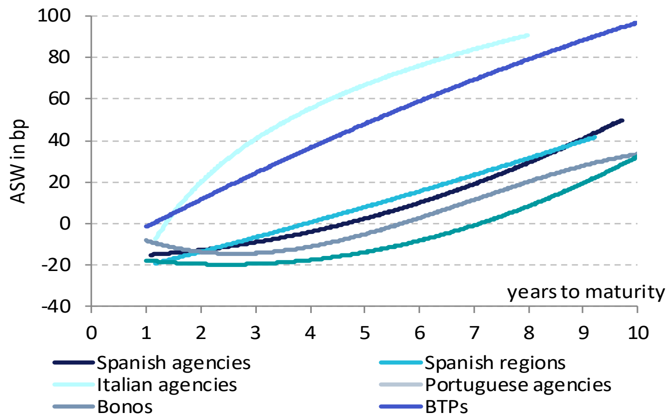
Supranationals



Core



Periphery



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

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Appendix
Overview of latest Covered Bond & SSA View editions

Publication	Topics
05/2022 ♦ 09 February	▪ ECB: full speed, throttling, U-turn – or wrong turn? ▪ Insurance companies as covered bond investors: the bank-insurer nexus
04/2022 ♦ 02 February	▪ Covered Bonds – Review of January 2022: a reversion to old patterns does not always have to be bad ▪ SSA – New year, new hope? Less oomph to kick off the new year
03/2022 ♦ 26 January	▪ ECB preview: 10y Bund spotted in positive terrain. What's next? ▪ EUR benchmark segment in Canada: our supply forecast already null and void
02/2022 ♦ 19 January	▪ Spotlight on the EUR benchmark segment: a look at the covered bond markets in Belgium and the Netherlands ▪ 24th meeting of the Stability Council (Dec. 2021)
01/2022 ♦ 12 January	▪ Covered Bonds Annual Review 2021 ▪ The Moody's covered bond universe – an overview ▪ SSA Annual Review 2021: Record after record
40/2021 ♦ 15 December	▪ ECB preview: End of PEPP, booster for APP?! ▪ Our view of the covered bond market in 2022 ▪ SSA Outlook 2022: Public sector caught between ECB & COVID
39/2021 ♦ 08 December	▪ The ECB, monetary policy and covered bond market: Hypothetical "What if...?" considerations ▪ The Moody's rating approach
38/2021 ♦ 01 December	▪ United Kingdom: Spotlight on the EUR benchmark segment ▪ Beyond Bundeslaender: Region Pays de la Loire (PDLL)
37/2021 ♦ 24 November	▪ Benchmark deals outside the euro: momentum has returned! ▪ Transparency regulations under Section 28 of the Pfandbriefgesetz (PfandBG - German Pfandbrief Act) Q3 2021 ▪ Beyond Bundeslaender: Auvergne-Rhône-Alpes Region (ARA)
36/2021 ♦ 17 November	▪ Primary market forecast 2022: time for a comeback? ▪ Development of the German property market ▪ Beyond Bundeslaender: Spotlight on Belgian regions
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

Appendix
Publication overview

Covered Bonds:

Issuer Guide Covered Bonds 2021

Risk weights and LCR levels of covered bonds

Transparency requirements §28 PfandBG

Transparenzvorschrift §28 PfandBG Sparkassen (German only)

SSA/Public Issuers:

Issuer Guide – German Bundeslaender 2021

Issuer Guide – Canadian Provinces & Territories 2020

Issuer Guide – Supranationals & Agencies 2019

Issuer Guide – Down Under 2019

Fixed Income:

ESG update

Analysis of ESG reporting

ECB decision: PEPP benched for now, APP comes in as Point Guard

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

ECB launches corona pandemic emergency

Appendix
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Sales MM/FX	+49 511 9818-9460
Sales Europe	+352 452211-515

Origination & Syndicate

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Origination Corporates	+49 511 361-2911

Treasury

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

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

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

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Additional information
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None

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Breakdown of recommendations (12 months)

Positive:	37%
Neutral:	55%
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Issuer / security	Date	Recommendation	Bond type	Cause