



Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research





Agenda

Market	overview

	Covered Bonds	3
	SSA/Public Issuers	7
LCR levels	and risk weights of EUR benchmarks	9
NextGene	rationEU: NGEU is taking shape	13
ECB tracke	er	
	Asset Purchase Programme (APP)	16
	Pandemic Emergency Purchase Programme (PEPP)	21
	Aggregated purchase activity under APP and PEPP	24
Charts & F	Figures	
	Covered Bonds	25
	SSA/Public Issuers	31
Overview	of latest Covered Bond & SSA View editions	34
Publicatio	n overview	35
Contacts a	at NORD/LB	36

Floor analysts:

Dr Frederik KunzeDr Norman Rudschuck, CIIAHenning Walten, CIIACovered BondsSSA/Public IssuersCovered Bondsfrederik.kunze@nordlb.denorman.rudschuck@nordlb.dehenning.walten@nordlb.de

NORD/LB:NORD/LB:NORD/LB:Bloomberg:Markets Strategy & Floor ResearchCovered Bond ResearchSSA/Public Issuer ResearchRESP NRDR <GO>



Market overview Covered Bonds

Authors: Henning Walten, CIIA // Dr Frederik Kunze

Primary market: CPT, ESG and Pfandbrief deals placed

Over the past six trading days, three further EUR benchmark bonds were placed on the market, increasing the volume issued so far this year by EUR 1.75bn to EUR 26.0bn. By way of comparison, EUR benchmarks worth EUR 28.25bn were placed on the market in January 2020 alone. Issuing activity was kicked off by Dutch bank NIBC, which had last been active with a EUR benchmark in October 2019. At the same time, its deal was the first CPT transaction since November 2020, when Aegon Bank had placed a 5y bond. By contrast, this recent CPT bond was placed on the market with a maturity of ten years and a volume of EUR 500m. At ms +9bp, pricing was significantly below the initial guidance in the region of ms +14bp. The issue yield was positive at +0.152%. The order book amounted to EUR 1.35bn, meaning the deal was significantly oversubscribed. After a transaction from NN Bank, this is only the second EUR benchmark bond from this Benelux state in 2021. At the start of the current trading week, CAFFIL came to the EUR benchmark market for the third time this year. Having previously opted for maturities of 10.2 and 15 years, a bond of eight years was now offered to investors. Based on demand of EUR 1.8bn, ultimately EUR 750m changed hands at ms -2bp. The yield was slightly below zero (-0.065%). Unlike the two previous issuances on the market, this was a social covered bond, the third of its kind to be placed by CAFFIL. On Tuesday, Bausparkasse Schwäbisch Hall became the last of the recently active issuers. After its inaugural EUR benchmark bond in October 2020, this was only the second EUR benchmark from the German building society. A total of EUR 500m was raised at ms -1bp over 12 years. Guidance had initially started in the region of ms +4bp. With an order book volume of EUR 1.7bn, the deal was in similarly strong demand to the inaugural bond (EUR 1.9bn).

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
Bauspk. Schwäbisch Hall	DE	20.04.	DE000A3E5S18	12.0y	0.50bn	ms -1bp	- / Aaa / -	-
CAFFIL	FR	19.04.	FR00140033E4	8.0y	0.75bn	ms -2bp	- / Aaa / AA+	Χ
NIBC	NL	14.04.	XS2333649759	10.0y	0.50bn	ms +9bp	AAA / - / AAA	-

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

GBP segment: Deutsche Pfandbriefbank active with 3.0y SONIA-based covered bond

On Tuesday, Deutsche Pfandbriefbank (PBB) successfully approached investors for what is only the second GBP benchmark seen so far in 2021. Previously, Nationwide Building Society has been the only bank active on the sterling market, with its ten-year SONIA-based covered bond issued in mid-February 2021. PBB has now placed a three-year covered bond, also referenced as FRN on SONIA. The spread was fixed at SONIA +27bp (guidance: SONIA +30bp), while the transaction of GBP 500m generated an order book of GBP 600m. Like Aareal Bank, for example, PBB is one of the German banks on the market to have a funding requirement in pound sterling due to its business activities.



Canada: Equitable Bank confirms plans for placement of EUR sub-benchmarks

In the previous issue of NORD/LB Covered Bonds & SSA View, we outlined the dealings of the Canadian regulator OSFI and the country's central bank. Among other aspects, we highlighted that it is our expectation the Canadian covered bond market would normalise, resulting in a strong presence of publicly placed bonds. A manuscript published by GlobalCapital on 16 April 2021 for a virtual round table discussion, which focussed on the outlook for Canadian covered bonds, revealed that Equitable Bank is ready to place an inaugural EUR bond from Canada. The choice of issuing currency and also the focus on the sub-benchmark segment (EUR 300m) were highlighted by Alex Prokoudine (Vice President Capital Markets at Equitable Bank) in the context of the round table and justified on the basis of the 5.5% issue limit imposed by the OSFI. We welcome this addition to the Canadian covered bond market and see it as a clear vital sign from Canada, although the focus on the sub-benchmark segment will at best have an indirect impact on our expectations for the benchmark segment. In fact, it is our assessment that those investors who were crowded out of the EUR benchmark - and also the sub-benchmark - segment by the dominance of the Eurosystem might see the announced issuance from Equitable Bank as a viable alternative. In this context, the recent announcement by the Laurentian Bank of Canada revealing that it has received approval from the Canada Mortgage and Housing Corporation (CMHC) to establish a covered bond programme is, in our view, more than just a side note.

ECB Bank Lending Survey: credit standards for loans to households for house purchases relaxed slightly by lenders

On Tuesday, the European Central Bank presented the results of the Bank Lending Survey for the first quarter of 2021. The survey-based information on the credit standards of banks is one of the most significant sources of information with regard to financing conditions in the euro area and is in our view also of great importance for the ECB's monetary policy measures on bank lending. While the internal credit standards for loans and credit lines to enterprises or consumer credit were ultimately moderately tightened, individual banks' overall terms and conditions for housing loans on balance eased slightly on the previous quarter. Banks also reported a net decrease in demand for housing loans in the first quarter of 2021, which according to the survey was triggered by lower levels of consumer confidence dampening demand for housing loans. Demand continued to be supported by the low general level of interest rates and, to a lesser extent, housing market prospects. With regard to the impact of the ECB's monetary policy measures on bank lending, the 143 banks surveyed confirmed on average that the purchase programmes (APP and PEPP) as well as the TLTRO III all had a positive impact on banks' liquidity positions and therefore market financing conditions. The ECB's negative deposit facility rate as well as the APP, PEPP and TLTRO III – with TLTRO III in particular strongly supporting bank lending over the past six months - had an easing impact on bank lending conditions and a positive impact on lending volumes. At the same time, the Bank Lending Survey clearly indicated that the asset purchases and the negative deposit facility rate had a negative impact on profitability. We do not see any direct stimulus for monetary policy decision-makers from these indications. Not least, we justify this assessment on the basis that the survey results - at least in part – have the desired effect on commercial banks from the ECB's perspective.



Norway: Moody's recognises takeover of Sbanken by DNB

In the context of an Issuer Comment, ratings agency Moody's recently discussed the planned acquisition of Sbanken ASA by DNB BANK ASA, which was announced by the company potentially being acquired on 15 April 2021, and rated the corresponding step for the affected Sbanken covered bonds as positive. As a result, the covered bond investors of Sbanken would benefit from the improved credit liquidity of the acquiring DNB bank. Moody's put the CR Assessment of Sbanken on "review for upgrade" after the announced takeover bid. Based on the Norwegian legal framework for the issuance of covered bonds, both banks issue their covered bonds via specific subsidiaries. Currently, the covered bonds of DNB Boligkreditt and Sbanken Boligkreditt have both been assigned the top rating of Aaa by Moody's. In the EUR benchmark segment, DNB Boligkreditt is clearly the biggest player with an outstanding volume of EUR 20.25bn (13 bonds). Sbanken Boligkreditt currently has one covered bond in this segment (EUR 500m; SBANBK 0 3/8 04/26/23). Spread narrowing and alignment with the DNB Boligkreditt curve is to be expected for the bond with a residual maturity of two years in the course of the successful acquisition Sbanken.

EU taxonomy from the perspective of covered bonds: "improved" again!

On Wednesday, the European Commission adopted a package of measures for sustainable finance. By enabling investors to re-orient investments towards more sustainable technologies and businesses, the European Commission is of the view that these measures will be instrumental in making Europe climate neutral by 2050. The package adopted yesterday is comprised of the EU Taxonomy Climate Delegated Act, a proposal for a Corporate Sustainability Reporting Directive and six amending Delegated Acts. With regard to the covered bond market and, in particular, the sub-segment of green bonds, the focus is especially on the taxonomy requirements for existing buildings completed before 2020, for which an Energy Performance Certificate (EPC) class A was prescribed in an earlier draft in order to be classified as green. This would have resulted in non-conformity with EU taxonomy for a very large proportion of assets refinanced via green covered bonds. As we previously reported in March, broadening of criteria in the meantime flowed into a new draft, which has now once more - and finally - been adapted to the benefit of green covered bonds. Accordingly, for newly acquired buildings, the requirement of an EPC class A applies or, as an alternative, the criteria that the building is within the top 15% of the national or regional building stock (cf. Annex I, p. 176 ff.). For the "Do no significant harm" (DNSH) criteria, the condition of EPC class C applies as an alternative for corresponding buildings within the top 30% of the national or regional building stock (cf. Annex II, p. 254 ff.). Moreover, the new draft of the Delegated Act stipulates that after 2021, the energy performance of the building resulting from the construction is at least 10% lower than the threshold set for the nearly zero-energy building (NZEB) requirements (cf. Annex I, S. 165 f.), which represents an improvement against the previous draft (previously, a threshold of 20% applied). With regard to the sub segment of green covered bonds (but also unsecured green bonds), these amendments are to be welcomed, as they retain a key part of the current universe of assets in the context of EU taxonomy. This approval was also welcomed and positively assessed by the EMF and the ECBC.



Scope quarterly report: risk experts comment on house price development

In the context of its quarterly report for the first quarter of 2021, ratings agency Scope focused on market developments in the first three months of 2021 – and therefore particularly on the restraint in issuance activity – and on overarching topics and trends, such as its position on EU taxonomy and house price developments in Europe. For example, aside from a few exceptions, the agency regards the relevant property price indices as an indication that the previous price trend is being bucked, although they say it is too soon to speak of a bubble forming. Nonetheless, the analysis identifies a need for proactive regulatory action, also with the aim of protecting banks and borrowers. The fact that the price trend in property circles is on the up long term even against the backdrop of the pandemic is not least a consequence of the monetary policy environment and a new preference structure within the populations of European countries, as the European Mortgage Federation (EMF) surmised in its quarterly report for the second quarter of 2020. The expectations with regard to the state lockdown and stay-at-home orders have resulted in a correlative adjustment with regard to demand on the property markets.



Market overview SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Henning Walten, CIIA

Today's ECB meeting allows the market to pause for breath

Please note the following: The study was prepared at the editorial deadline of 22 April 2021, 08:56 and is hereby made available to you by e-mail with a delay due to technical disruptions in the dispatch process. We apologise for this. This afternoon, the eurozone's monetary watchdogs will meet for their regular meeting to discuss key interest rates. At the same time, the Governing Council is likely once again to grapple with questions regarding the economic implications of progress with vaccina-tion and lockdowns as well as the associated short, medium and long-term course of the economic recovery process and the trend in inflation. In this context, it must also assess the "new" environment resulting from a US economic programme and the ramping up of bond purchases by the ECB. In principle, we assume that the central bankers in Frankfurt will leave the key monetary policy control parameters untouched in their April meeting too. Accordingly, we are not expecting either adjustments to key interest rates or amendments to the conditions for the current TLTRO III programme and the bond pur-chase programmes (PEPP/APP). Finally, the increase in bond purchases announced for the second quarter of 2021 as part of the current parameterisation of the PEPP is taking place. We are also not anticipating an increase in the tiering factor of the ECB's tiered interest rate, which applies to deposits by commercial banks with the Eurosystem, at the present moment. However, we would not rule this out later on this year. Overall, there-fore, the monetary policy parameters should remain intact this afternoon, while the text of the press release should - yet again - be highly significant. In our view, the PEPP and TLTRO are likely to determine the scenarios in 2021.

Semi-autonomous region: Republic of Srpska

It has been 25 years since the end of the Bosnian war, but the country remains deeply divided both ethnically and politically. This is also due to provocation from the Republic of Srpska, the Serbian-led entity of Bosnia-Herzegovina, which has now placed a syndicated issue in euros for the first time on the market and, as a result, has added to the expanding supply of debt from the Balkans. The consortium acting on behalf of the semi-autonomous region (constituent state) held calls with investors in advance to discuss a potential fiveyear bond issue. Srpska, which was established in 1995 as part of a peace agreement, has its own government and a population of 1.3m compared with Bosnia's total population of almost 3.3m. Srpska first ventured onto the EUR capital market three years ago under the ticker REPSBN. The previous securities are, according to market information, very illiquid. The Republic of Srpska was established under an agreement negotiated by the USA, which ended the fighting in Bosnia-Herzegovina that came about during the bloody disintegration of Yugoslavia (key word: Srebrenica massacre). The Serbian entity shares a weak central government based in the capital Sarajevo with its Bosniak-Croatian counterparts. Generally speaking, the political entities or units with the status of a state within a federal association of states (federal state) or a confederation are described as constituent states (see Belgium or even the USA). Srpska has now sought investors for EUR 300m over five years at a coupon of 4.75%. The bond was minimally oversubscribed and was rated B3 / B.



Primary market

Aside from the deal issued by the Republic of Srpska, which at EUR 300m does not qualify for the benchmark segment, other issuers raised funds on the market in the last six trading days. On Wednesday last week, MuniFin (KUNTA) approached its investors and offered a bond worth EUR 500m with a maturity of seven years. At ms -6bp, it was priced one basis point tighter than its guidance. Given demand of EUR 750m, the deal was 1.5 times oversubscribed. It was followed one day later by the International Development Association, whose Bloomberg ticker IDAWBG references its membership of the World Bank Group. A total of EUR 1.75bn was printed in the form of a sustainable development bond. Here, too, the pricing tightened by a single basis point. Details of the books were also released. Accordingly, 86% of the volume of the 15y bond went to Europe, while the remaining 14% was allocated to Asian investors. As far as the type of investor was concerned, asset managers/pension funds (54%) dominated, followed by central banks/official institutions (31%). Finally, 15% went to banks and corporates. Nederlandse Waterschapsbank kicked off the current trading week with a water bond. The bond, which has a maturity of 30 years and a volume of EUR 500m was initially marketed at ms +11bp area and was finally priced two basis points tighter at ms +9bp on the basis of an order book of EUR 1.0bn. The next day it was the EU that came to the market. Demand far exceeded supply again, which is now to be regarded as standard procedure for this issuer, despite the fact that this was not expressly announced as a SURE bond (refinancing EFSM: European Financial Stability Mechanism). Altogether, EUR 4.75bn was marketed at ms -7bp for 15 years. The order books reached EUR 41.5bn, meaning that the deal was almost nine times oversubscribed. Pricing again tightened two basis points during the book building process. The group of EUR benchmarks in the SSA segment was completed yesterday (Wednesday) by a German Bundesland. The Free State of Saxony raised EUR 500m for ten years. It was priced at ms -5bp. No details have been disclosed regarding the order book. Two further Bundeslaender featured on the market, albeit not with new issues but with benchmark-sized taps. The State of Lower Saxony increased its NIESA 0.01 01/10/31, which was only issued on 1 April. A sum of EUR 500m changed hands for ms -5bp. The same goes for the city state of Berlin, which also carried out a tap worth EUR 500m. BERGER 0 1/8 11/24/45 from November 2020 was increased at ms +6bp. NRW 2121 was also increased but is now full, at EUR 3bn, and has been closed by the issuer. The guiding principle in Düsseldorf is being actively followed with this cap and can clearly be seen from the bonds up to 2119 and 2120, which were also increased to a maximum of EUR 3bn. We comment on the EU's funding plans, which have now been fleshed out, in today's lead SSA article. The ESM has also sent an RfP for its next deal.

Issuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
SAXONY	DE	20.04.	DE0001789337	10.0y	0.50bn	ms -5bp	-/-/AAA	-
EU	SNAT	19.04.	EU000A3KP2Z3	15.0y	4.75bn	ms -7bp	AAA / Aaa / AAA	-
NEDWBK	NL	15.04.	XS2334267098	30.0y	0.50bn	ms +9bp	-/-/AAA	Χ
IDAWBG	SNAT	14.04.	XS2334114779	15.0y	1.75bn	ms +4bp	- / Aaa / AAA	Χ
KUNTA	FI	14.04.	XS2333658073	7.0y	0.50bn	ms -6bp	-/Aa1/AA+	-

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



Covered Bonds LCR levels and risk weights of EUR benchmarks

Author: Henning Walten, CIIA

Regulatory indicators relevant for most important buyer group

With an allocation rate of more than 40% among new issuances in the EUR benchmark segment, credit institutions continue to make up the most significant investor group for covered bond issuers, despite the major market intervention by the Eurosystem. The fact that covered bonds might be shown regulatory preference is also likely to be a key reason for this, alongside their favourable risk profile. In our NORD/LB Covered Bond Special – risk weights and LCR levels of covered bonds, we examined in detail how the risk weight and LCR level of covered bonds is ascertained and also offered our own classification of the bonds included in the iBoxx EUR Covered. In this article, we therefore intend to offer a brief overview of the two indicators and their distribution within the EUR benchmark segment.

Credit Quality Step is important starting point for regulatory indicators

The Credit Quality Step (CQS) system of the Capital Requirements Regulation (CRR) is fundamental for ascertaining both the risk weight and the LCR level. It can be used to enable comparison between rating assessments from renowned agencies (ECAI, External Credit Assessment Institutions) and, if several credit ratings are available, allows for a definitive result. Just one rating can be deemed "unproblematic", with the mapping a little more complex for a number of ratings. Regardless of the actual number of ratings available, the CQS is always determined by the two ratings that lead to the two lowest risk weights, i.e. the two best ratings (see examples below). Should the two relevant ratings lead to different assessments with regard to the risk weight, the pertinent rating of the two is that which in turn results in the higher of the two risk weights, i.e. the worse of the two ratings. If there are two or more ratings available, the CQS is therefore derived from the worst of the two best ratings, as the table below also shows.

Ascertaining Credit Quality Steps

	Rating 2		CQS 1			CQS 2			CQS 3			
Rating 1		AAA	AA+	AA	AA-	A+	Α	A-	BBB+	BBB	BBB-	
	AAA											
COC 1	AA+	Credit Quality				Cr	Credit Quality			Credit Quality		
CQS 1	AA		Step 1				Step 2			Step 3		
	AA-	ŗ				·						
	A+		Credit Quality				Credit Quality			Credit Quality		
CQS 2	Α					•			•			
	A-		Ste	p 2		Step 2			Step 3			
	BBB+	Cradit Quality				Cradit Quality		di+v	Cradit Quality			
CQS 3	BBB		Credit Quality Step 3			Credit Quality			Credit Quality			
	BBB-		Ste	рз		Step 3			Step 3			

Source: Regulation 2016/1799, NORD/LB Markets Strategy & Floor Research



Covered bonds might benefit from reduced risk weight

While the risk weight for exposures against credit institutions under the CRR is generally calculated pursuant to Article 120 (rated exposures) or Article 121 (unrated exposures) based on the CQS, covered bonds pursuant to Article 129 can, under certain circumstances, benefit from preferential treatment and therefore a reduced risk weight. Accordingly, a covered bond pursuant to Article 129(1) must meet the requirements set out in Article 52(4) of the Collective Investment of Transferable Securities (UCITS). Among other criteria, the bond must be issued by a bank whose registered office is in the European Economic Area (EEA). Article 129(1) also defines the assets that are eligible as cover assets in order for covered bonds to have regulatory preference. Conversely, if a cover pool contains assets that have not been explicitly included in Article 129, the respective bond will not benefit from a preferential risk weight. Moreover, the transparency requirements laid down in Article 129(7) must also be met in order to justify preferential treatment for the risk weight. With regard to the EUR benchmark segment, this means that only EEA bonds can be considered for a preferential risk weight, bearing in mind they must also fulfil other requirements at the same time. While bonds from outside the EEA do not need to meet any further criteria, they will however have a risk weight of at least 20% instead. The following table provides a simplified picture of how risk weight is ascertained. As a rule, a risk weight can be determined for covered bonds without a rating as well, although we are excluding these at this point because we are focussing on the EUR benchmark segment.

Risk weight of covered bonds with ECAI rating

Credit Quality Step	Requirements of Article 129 of the CRR met	Requirements of Article 129 of the CRR <u>not</u> met (incl. non-EEA bonds)
1	10%	20%
2	20%	50%
3	20%	50%
4	50%	100%
5	50%	100%
6	100%	150%

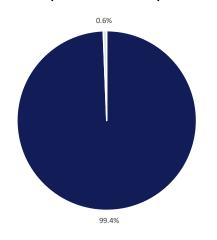
Source: Regulation 2016/1799, CRR, NORD/LB Markets Strategy & Floor Research

LCR level: preferential treatment of EEA covered bonds

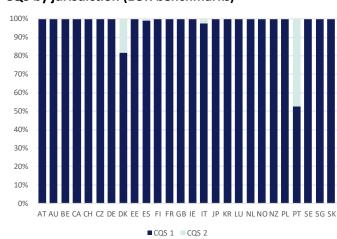
Numerous requirements must be taken into account and met when it comes to determining the LCR level of a covered bond. As is the case for ascertaining the risk weight, the registered office of the issuing entity is key. While EEA bonds can be level 1, level 2A and level 2B assets, bonds from outside the EEA can only achieve classification as level 2A assets. It is not just the previously mentioned CQS that is taken into account when determining the level, but also the issue volume and overcollateralisation of covered bonds, which do not play a role in determining risk weights. However, the fulfilment of transparency requirements pursuant to Article 129(7) of the CRR is likewise of relevance for the LCR level. Furthermore, there are additional requirements with regard to the composition of the relevant cover pools. When compared with how the risk weight is determined, ascertaining the LCR level of covered bonds is considerably more complex. At this point, we therefore refer to our Special for further information on the LCR level.



CQS by volume (EUR benchmarks)







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

Mostly, iBoxx EUR Covered contains covered bonds with risk weight of 10%

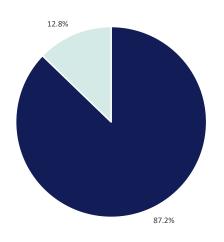
CQS 1CQS 2

10%

20%

With regard to the bonds included in the iBoxx EUR Covered (excl. Spanish multi-cedulas), benchmarks with a risk weight of 10% make up the majority share of 87.2%. This share is fundamentally attributable to the high proportion of EEA transactions in the index. However, there are also isolated examples of bonds that, owing to their rating, do not benefit from a risk weight of 10%. The proportion of bonds that cannot currently be allocated to CQS 1 is a mere 0.6%. Outstanding bonds that can be allocated to CQS 2 under the CQS system exist only in Denmark (2 bonds), Italy (1), Portugal (3) and Spain (1). There is not currently a bond with a risk weight of 50%, although in principle, this would be possible as even covered bonds with a rating of CQS 3 (BBB segment) are eligible for the iBoxx index. Covered bonds from Luxembourg are currently a special case. While these generally boast a risk weight of 10%, because of the assets in the cover pool, they cannot fulfil the specifications under Article 129(1) of the CRR and therefore carry a risk weight of 20%.

Risk weight by volume (EUR benchmarks)



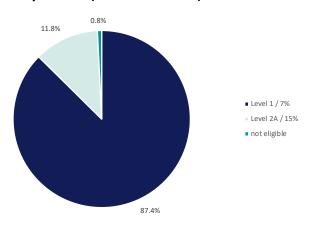
Risk weight by jurisdiction (EUR benchmarks)



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



LCR level by volume (EUR benchmarks)



LCR level by jurisdiction (EUR benchmarks)



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

Only few bonds are not LCR eligible

Once more, the clear dominance of the best-possible grade is demonstrated in the LCR levels. LCR level 1 covered bonds account for 87.4% of the iBoxx volume, which is again due to the share of EEA issuances. We classify a further 11.9% of bonds as level 2A assets. Bonds from Japan and Switzerland are not LCR eligible, as they are not issued under a legal framework. The same applies for the CPT benchmark from Deutsche Bank, as this is not based on the German Pfandbrief Act (PfandBG). In isolated cases, the LCR level falls below the top grade on account of the rating. In this context, it is worth highlighting that we think all cover pool reporting fulfils the transparency requirements under Article 129(7) of the CRR. This is also a prerequisite for a preferential risk weight. In the past, this was not so in some instances, which meant the respective bonds would not be LCR eligible.

Conclusion

With regard to both the risk weight and the LCR level of EUR benchmarks, it can be established that the best-possible grade has mostly been assigned for the respective indicators. Any variance is above all attributable to the credit ratings of individual bonds. On a positive note, the picture has not worsened in the wake of the Corona crisis and the bonds currently included in the iBoxx EUR Covered benefit to a very high degree from the best possible regulatory treatment. Detailed information on determining the risk weight and LCR level as well as our assessments with regard to the two regulatory indicators and other characteristics of the bonds can be found in our NORD/LB Covered Bond Special — risk weight and LCR level of covered bonds.



SSA/Public Issuers NextGenerationEU: NGEU is taking shape

Author: Dr Norman Rudschuck, CIIA

The EU now has its finger on the trigger: NextGenerationEU is taking shape

It has often been talked about and we have already provided a general description in the past, but now more and more facts are being revealed: NextGenerationEU (NGEU) is a time-limited economic instrument worth EUR 750bn at 2018 prices, which makes it EUR 806.9bn at current prices. Why are we so precise here? The issues on the capital market will equate to EUR 806.9bn and not the presumed EUR 750bn. This is the centrepiece of the European Union's reaction to the coronavirus pandemic. NGEU will support the economic recovery and build a greener, more digital and more resilient future. To finance NGEU, the European Commission will raise loans on the capital markets in the name of the EU. Thanks to the EU's high credit rating, the European Commission will be able to raise loans at advantageous financial conditions. The Commission will then pass this advantage directly to EU Member States if it grants them loans or to the budget in the form of low interest payments on bonds to finance economic expenditure. Borrowing will be concentrated in the period between mid-2021 and the end of 2026 and will comprise EUR 150-200bn every year. We expect a proportion of green bonds of EUR 250bn in the total package. Maturities of three to 30 years were announced. Total borrowings are to be repaid by 2058. The EU budget, which is financed through own resources and contributions from all EU Member States and is often a stumbling block for negotiations, will provide security for the borrowings.

NGEU: structure and refinancing

The centrepiece of NGEU is the Recovery and Resilience Facility – an instrument for providing grants and loans to support reforms and investments in EU Member States with a total value of EUR 723.8bn at current prices. A not inconsiderable part of the funds (up to EUR 338bn) is to be provided in the form of grants. These will be repaid from the EU budget. The other part (up to EUR 385.8bn) will be granted as loans to individual Member States by the EU. Only these loans will also be repaid by these Member States. The funds from the facility will be allocated in accordance with the national recovery and resilience plans which have been worked out by individual Member States in collaboration with the European Commission and allocated in accordance with an agreed allocation key. To support repayment of the bonds, the Commission will propose new own resources (or sources of income) for the EU budget, which will be added to the existing sources. These could also be used for premature repayment before 2028. These new own resources will be based on a Carbon Border Adjustment Mechanism (CBAM), the emissions trading system and a digital services tax. According to the EU, detailed proposals will follow by June 2021. Additional new own resources, which are to be proposed by June 2024, could include a financial transaction tax, a financial contribution linked to the corporate sector or a new joint assessment basis for corporation tax.



Brief visual overview



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

Diversified funding strategy

The European Commission's diversified financing strategy would combine the following:

- Six-monthly publication of financing plans to offer transparency and predictability to investors and other stakeholders;
- Structured and transparent relationships with banks that support the issuance programme;
- Several funding instruments (medium and long-term bonds, of which some will be issued as NextGenerationEU green bonds and EU bills), to maintain flexibility in relation to market access and to manage the liquidity requirement and the maturity profile;
- A combination of auctions and syndications to guarantee cost-efficient access to the requisite financial resources on advantageous terms.

Bonds and bills

The issue of bonds over benchmark maturities (3, 5, 7, 10, 15, 20, 25, 30 years) is the key path for an issuer to implement their funding plan. The European Commission has already issued benchmark bonds with different maturities through SURE, the instrument to finance employment programmes throughout the EU, and has established a presence along the maturity curve (from 5 to 30 years). The Commission's aim is to be present on a regular basis across all parts of the curve with EU bonds that are as liquid as possible. Instead of issuing new bonds with new maturities, the Commission will, if possible, increase the amount of bonds already issued. As a result, the outstanding amount of the bond will become more liquid in secondary market trading and consequently more attractive for investors. In contrast, we are only familiar with bills from the ESM so far. As a result, the European Commission will also start to issue securities with a shorter maturity – less than one year – which will be known as EU bills. These will give the EU access to the deep and liquid (short-term) money market, which will improve its ability to manage its funding requirement responsively and flexibly. For the issue of EU bills, the Commission will always have recourse to auctions which is consistent with normal market practice.



Conclusion

The recovery fund of EUR 806.9bn will be the largest amount raised jointly by the 27 EU Members. This goes hand in hand with a further EUR 100bn to create jobs (SURE). According to Bloomberg, some market participants hope that this will lead to the creation of regional "safe assets", which could compete with US Treasuries - a goal that European decision makers would have pursued even before the creation of the single currency two decades ago. In our opinion, the recovery fund will catapult Europe into the top rank of ESG bond issues, as the EIB was already a major player here and is becoming even more of one, to say nothing of the fact that the KfW is already issuing large amounts of green bonds as well. The EU will not replace Germany as a safe haven, but it will do no harm to have other AAA entities in Europe, which (help) shape market events. The significance of the EUR will inevitably increase. Whether EU bonds are priced instead of versus Bunds, BTPs, OLOs or FRTRs or even replace the EUR mid-swap, is yet to be revealed and remains up in the air. However, here too, new capital market practices could come about, as standards have to emerge over time because of acceptance and practicability. This also implies a plentiful supply after 2027 etc. The EU will certainly often preoccupy us in this context. Some people also see the European capital market union as already having a foot and a half through the door, others are betting on the (German) Federal Constitutional Court and hope that the European concept will be rolled back rather than advanced. The expedited application against NGEU financing was at least rejected yesterday. However, the constitutional complaint lodged by "Bündnis Bürgerwille" (the citizens' movement) remains pending even after the decision on the expedited application. It has not been announced when the German Constitutional Court will make a ruling. Our understanding is that the applicants are arguing that the EU treaties unequivocally prohibit joint borrowing altogether. According to the trade press, however, the German federal government and European Commission have sought to invoke Article 122 of the EU treaties. According to this exemption clause, in the event of natural disasters or exceptional circumstances, a Member State can be granted "financial assistance from the EU under certain conditions". In our opinion, this would be analogous to the suspension of the German debt brake. Will the market tolerate more EU? Absolutely! As a reminder, the first EU deal was almost 14 times oversubscribed; there is therefore more than enough demand, as the most recent deal (non-SURE!) has also demonstrated, and the Eurosystem can buy up to 50% of supranationals on the secondary market.



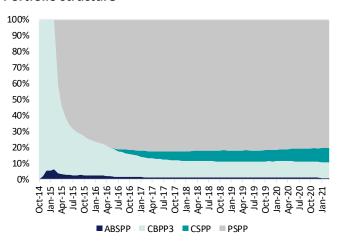
ECB tracker

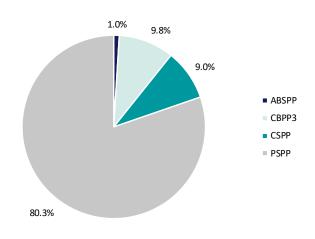
Asset Purchase Programme (APP)

Holdings (in EURm)

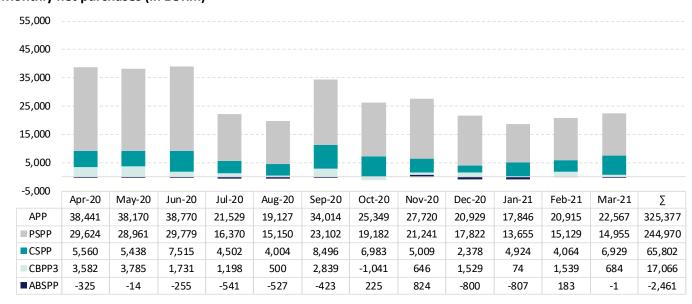
	ABSPP	СВРР3	CSPP	PSPP	APP
Feb-21	28,728	289,158	259,391	2,370,392	2,947,669
Mar-21	28,716	289,424	266,060	2,379,053	2,963,252
Δ	-12	+266	+6,669	+8,661	+15,583

Portfolio structure





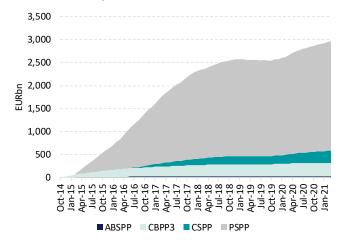
Monthly net purchases (in EURm)



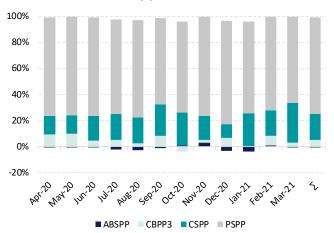
Source: ECB, NORD/LB Markets Strategy & Floor Research



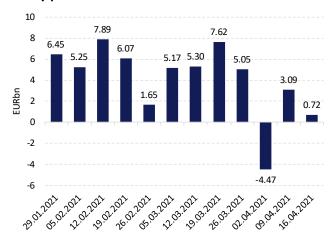
Portfolio development



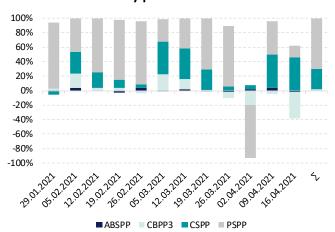
Distribution of monthly purchases



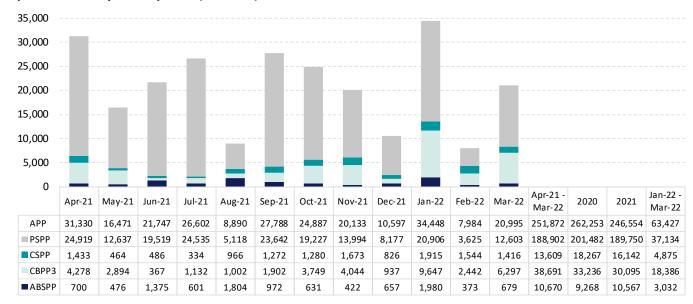
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

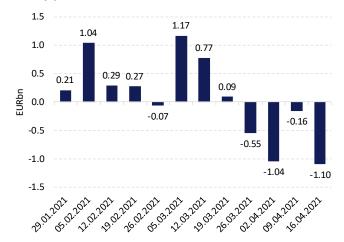


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

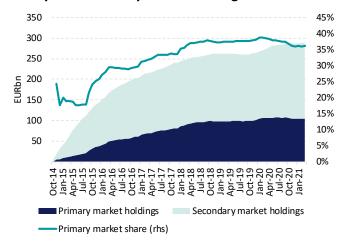


Covered Bond Purchase Programme 3 (CBPP3)

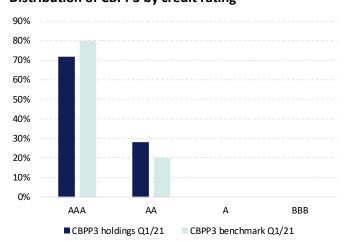
Weekly purchases



Primary and secondary market holdings

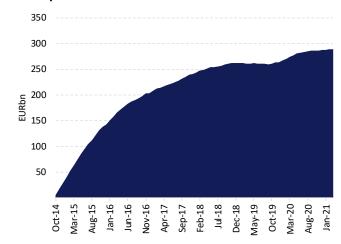


Distribution of CBPP3 by credit rating



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

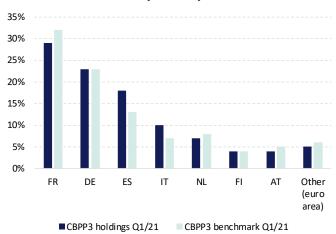
Development of CBPP3 volume



Change of primary and secondary market holdings



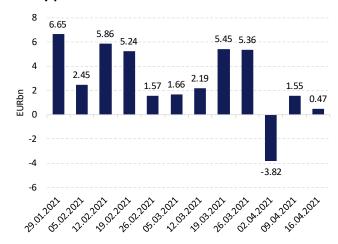
Distribution of CBPP3 by country of risk



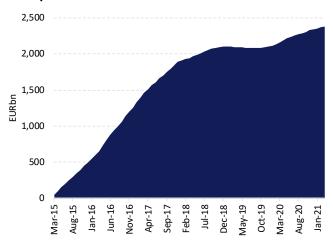


Public Sector Purchase Programme (PSPP)

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	7.8	7.8	0.0
BE	3.4%	88,296	84,283	4,013	8.4	10.2	-1.8
CY	0.2%	3,524	4,978	-1,454	10.0	9.3	0.7
DE	24.3%	592,995	609,844	-16,849	6.5	7.6	-1.1
EE	0.3%	351	6,517	-6,166	9.7	9.7	0.0
ES	11.0%	293,850	275,863	17,987	8.2	8.5	-0.3
FI	1.7%	37,236	42,494	-5,258	7.2	7.9	-0.7
FR	18.8%	494,798	472,494	22,304	7.0	8.1	-1.1
GR	0.0%	0	0	0	0.0	0.0	0.0
IE	1.6%	38,563	39,174	-611	8.6	9.9	-1.3
IT	15.7%	421,580	393,011	28,569	7.1	7.8	-0.7
LT	0.5%	4,793	13,389	-8,596	9.5	11.3	-1.8
LU	0.3%	3,230	7,620	-4,390	5.0	6.5	-1.5
LV	0.4%	2,706	9,014	-6,308	10.1	10.5	-0.4
MT	0.1%	1,226	2,426	-1,200	10.1	9.2	0.9
NL	5.4%	120,754	135,575	-14,821	7.5	8.4	-0.9
PT	2.2%	47,379	54,145	-6,766	7.2	7.6	-0.4
SI	0.4%	9,204	11,139	-1,935	9.4	9.3	0.1
SK	1.1%	15,190	26,494	-11,304	8.4	8.6	-0.2
SNAT	10.0%	261,198	250,686	10,512	7.2	8.3	-1.1
Total / Avg.	100.0%	2,506,856	2,506,856	0	7.2	8.1	-0.9

 $^{^{\}mathrm{1}}$ Based on the ECB capital key, adjusted to include supras and the disqualification of Greece

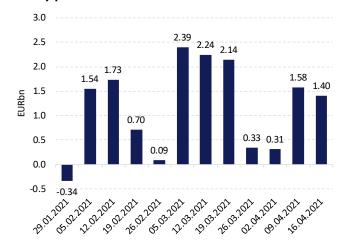
² Based on the adjusted distribution key

³ Weighted average time to maturity of the bonds eligible for purchasing under the PSPP (semi-annual data, Q3/2020) Source: ECB, NORD/LB Markets Strategy & Floor Research

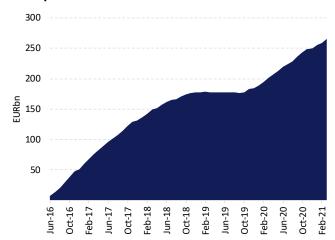


Corporate Sector Purchase Programme (CSPP)

Weekly purchases

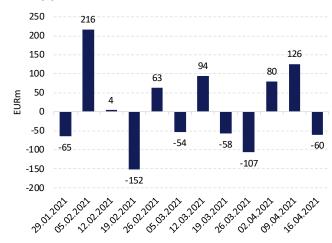


Development of CSPP volume



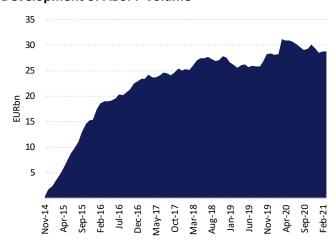
Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



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

Development of ABSPP volume



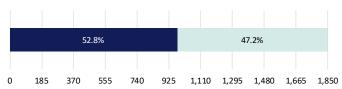


Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

Volume already invested (in EURbn)





Estimated portfolio development

Assumed pace of purchases

Weekly net purchase volume

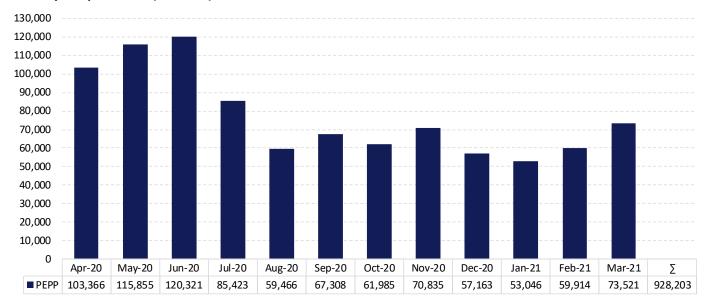
PEPP limit hit in ...

Average weekly net purchase volume so far

EUR 17.8bn

49 weeks (25.03.2022)

Monthly net purchases (in EURm)

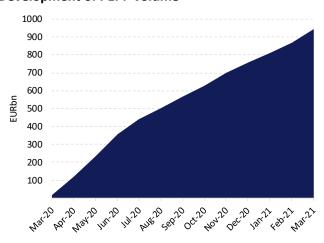


Weekly purchases

25 21.1 19.0 20 17.1 _{16.3} 17.1 17.2 14.0 15 10 5 02.04.2022 22.02.202 39.02.2022 05.03.2022 2.03.202 19.03.202 26.03.202 26.02.2022

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

Development of PEPP volume

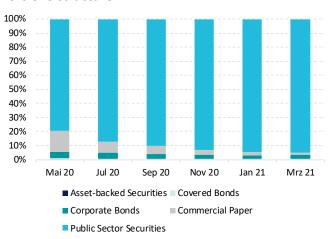


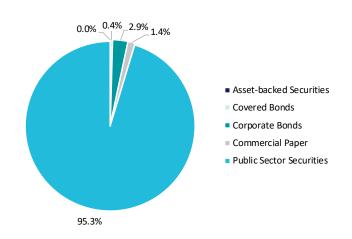


Holdings under the PEPP (in EURm)

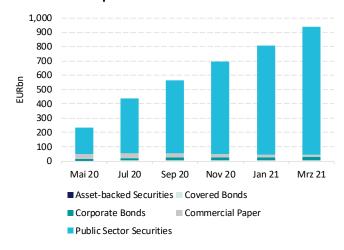
	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Jan-21	0	3,120	22,315	16,611	764,710	806,756
Mar-21	0	4,055	27,058	12,766	893,844	937,723
Δ	0	+935	+4,743	-3,845	+129,134	+130,967

Portfolio structure

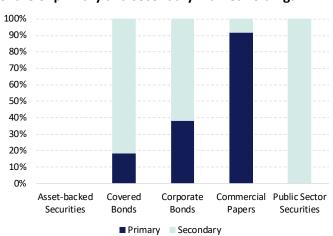




Portfolio development



Share of primary and secondary market holdings



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

	Asset-backed securities		Covere	d 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%

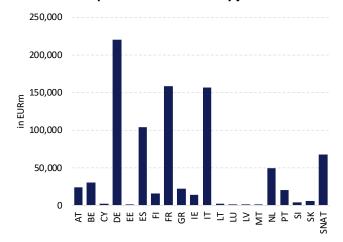
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research



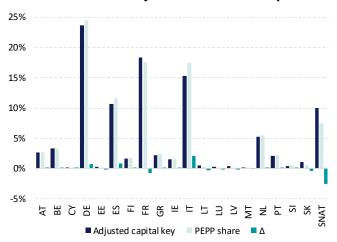
Breakdown of public sector securities under the PEPP

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



 $^{^{\}mathrm{1}}$ Based on the ECB capital key, adjusted to include supras $^{\mathrm{2}}$ 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

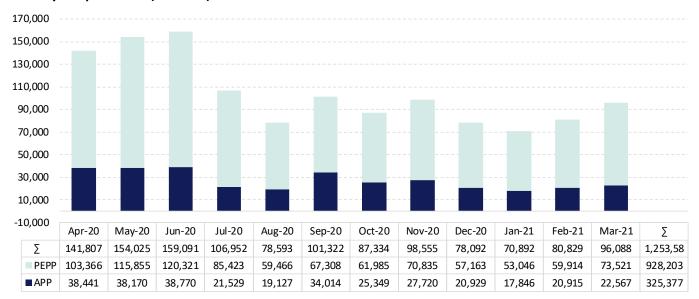


Aggregated purchase activity under APP and PEPP

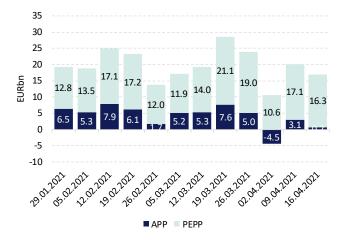
Holdings (in EURm)

	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)

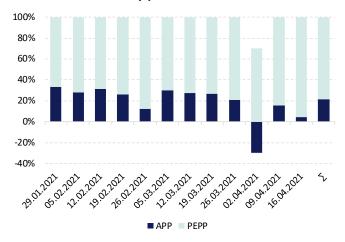


Weekly purchases



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

Distribution of weekly purchases



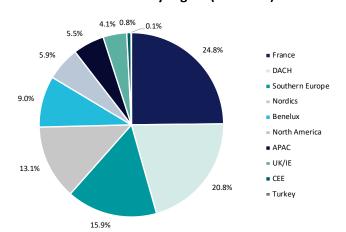


Charts & Figures Covered Bonds

EUR benchmark volume by country (in EURbn)

127.5; 14.3% 221.7; 24.8% = DE 30.3; 3.4% ES 30.5; 3.4% = NL CA 33.5: 3.8% IT ■ NO 49.5; 5.5% ■ GB AT 51.7; 5.8% 152.4; 17.1% ■ SE Others 53.0; 5.9% 58.4; 6.5% 84.2; 9.4%

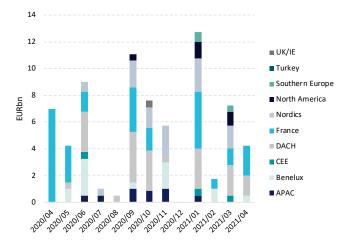
EUR benchmark volume by region (in EURbn)



Top-10 jurisdictions

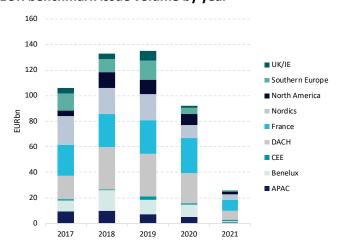
Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	221.7	205	8	0.95	10.2	5.6	1.11
2	DE	152.4	227	13	0.60	8.3	4.7	0.44
3	ES	84.2	69	3	1.13	11.2	3.9	1.77
4	NL	58.4	59	0	0.93	11.2	7.4	0.90
5	CA	53.0	46	0	1.12	6.0	3.1	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	33.5	39	0	0.89	8.2	3.2	1.04
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



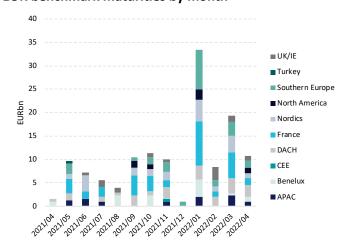
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

EUR benchmark issue volume by year

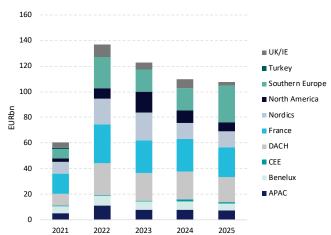




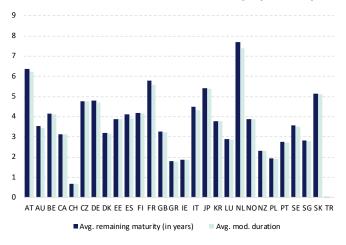
EUR benchmark maturities by month



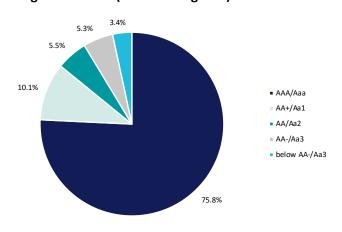
EUR benchmark maturities by year



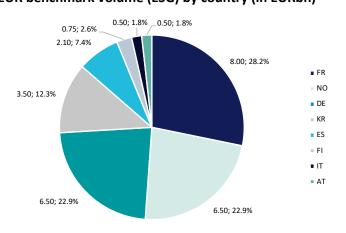
Modified duration and time to maturity by country



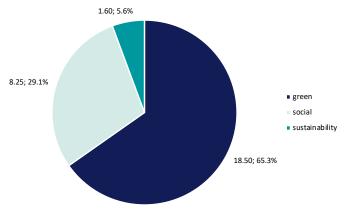
Rating distribution (volume weighted)



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



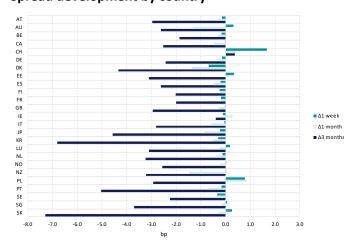
EUR benchmark volume (ESG) by type (in EURbn)



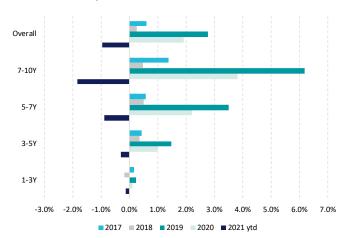
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



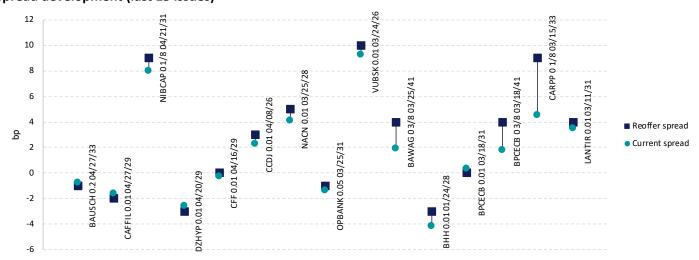
Spread development by country



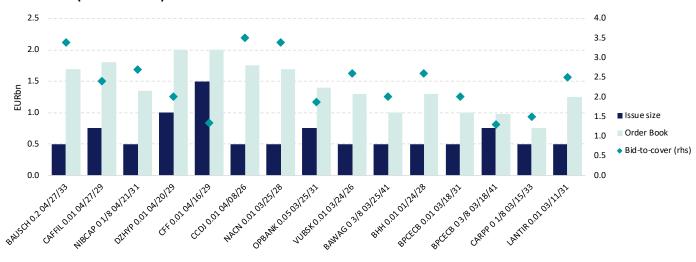
Covered bond performance (Total return)



Spread development (last 15 issues)



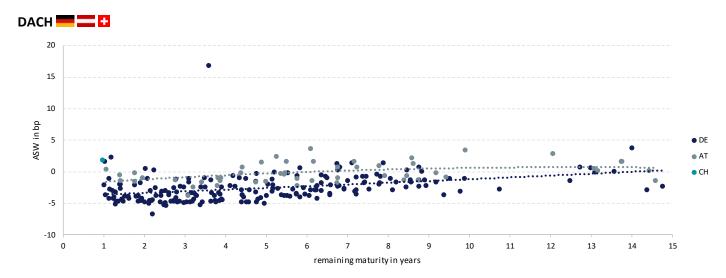
Order books (last 15 issues)

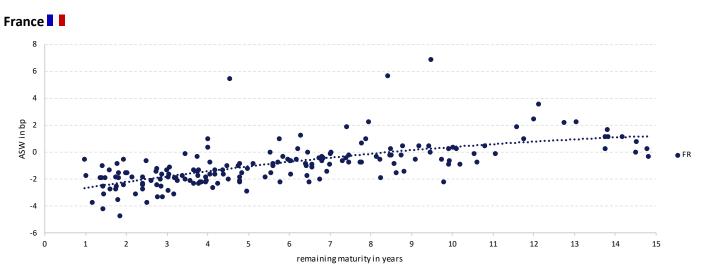


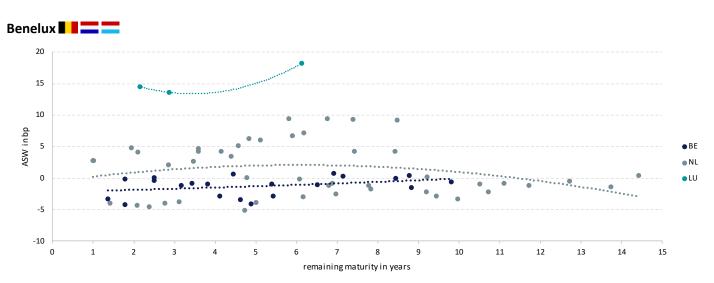
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



Spread overview¹

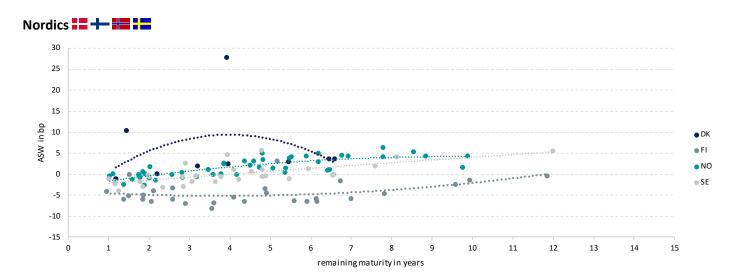


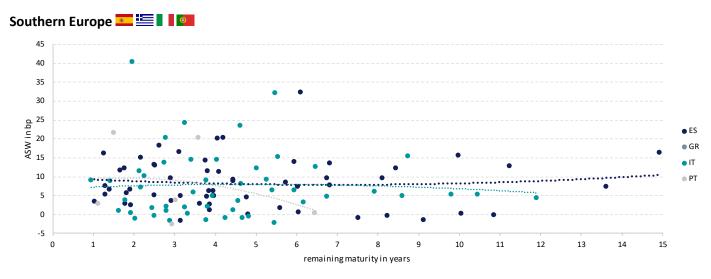


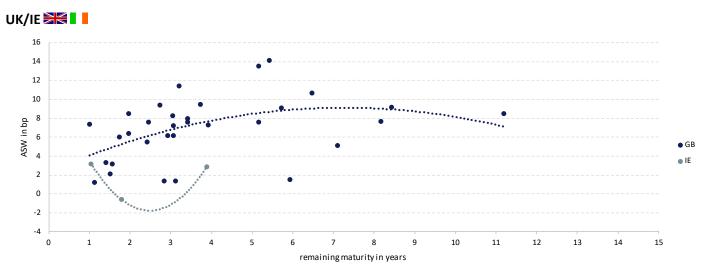


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research 1 Time to maturity $1 \le y \le 15$



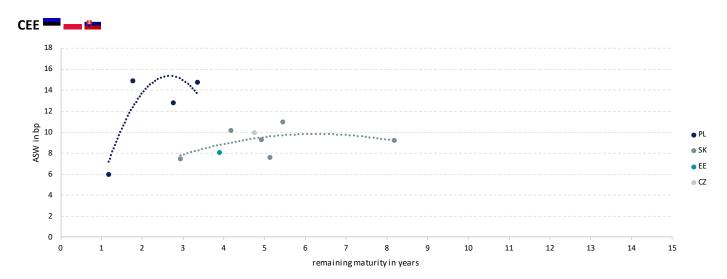


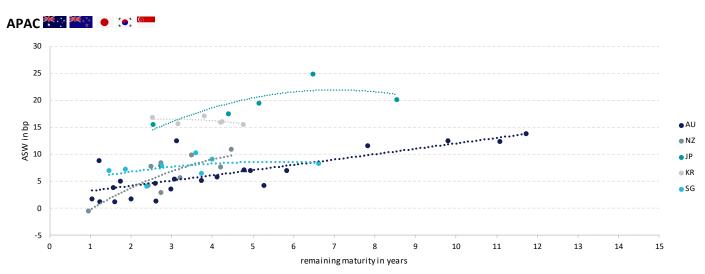


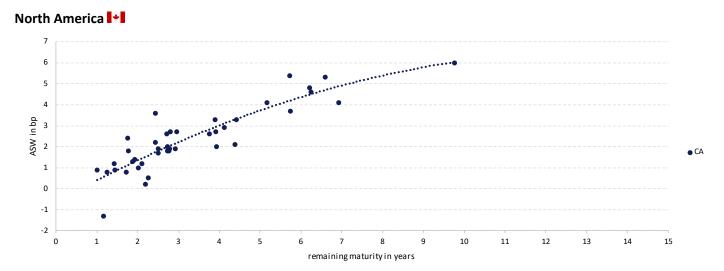


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research







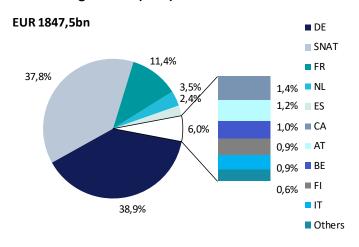


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



Charts & Figures SSA/Public Issuers

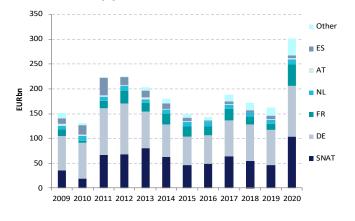
Outstanding volume (bmk)



Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
DE	719,3	560	1,3	6,7
SNAT	699,2	186	3,8	8,2
FR	210,2	141	1,5	5,4
NL	64,4	65	1,0	6,7
ES	44,4	54	0,8	5,4
CA	25,0	18	1,4	5,4
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

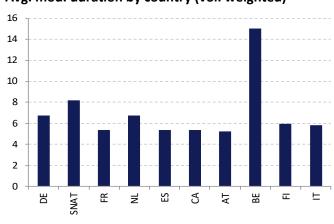
Issue volume by year (bmk)



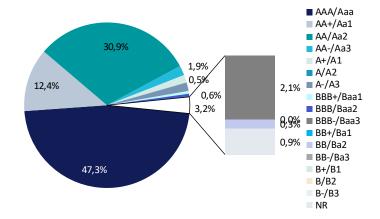
Maturities next 12 months (bmk)



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



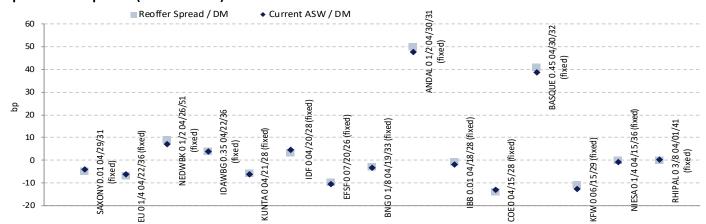
Rating distribution (vol. weighted)



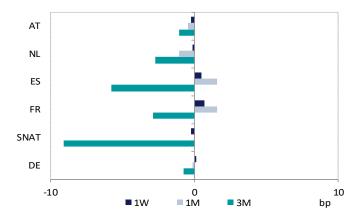
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research



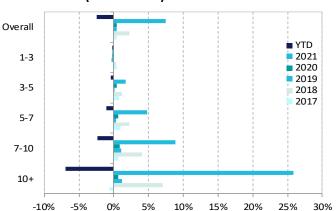
Spread development (last 15 issues)



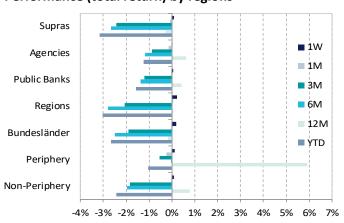
Spread development by country



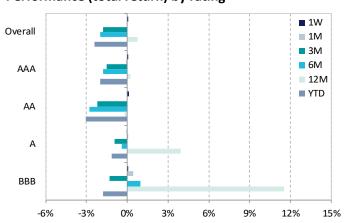
Performance (total return)



Performance (total return) by regions



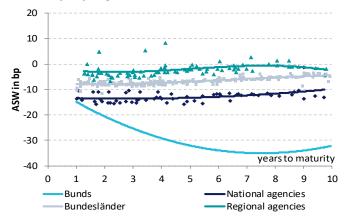
Performance (total return) by rating



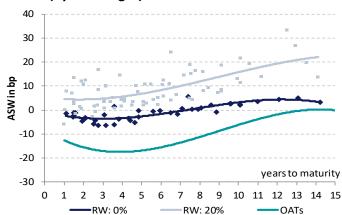
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research



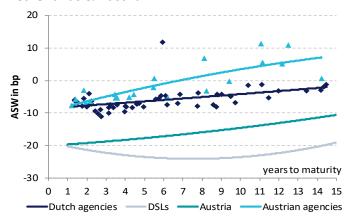
Germany (by segments)



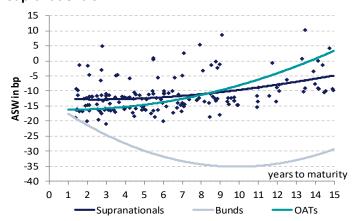
France (by risk weight)



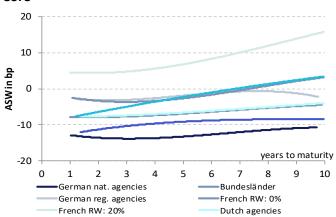
Netherlands & Austria



Supranationals

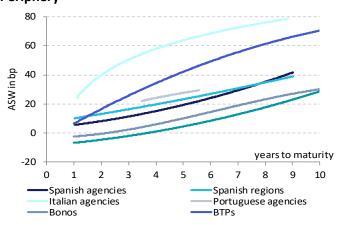


Core



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

Periphery





Appendix

Overview of latest Covered Bond & SSA View editions

Publication	Topics
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
47/2020 ♦ 09 December	Fourth and final round of PEPP reporting in 2020
	Investment alternative: Paris metropolitan area (IDF and VDP)
_	

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 Contacts at NORD/LB

Markets Strategy & Floor Research



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



Dr Frederik Kunze

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



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



Henning Walten
Covered Bonds
+49 511 361-6379
+49 152 545 67178
henning.walten@nordlb.de

Sales

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

Origination & Syndicate

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

Treasury

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

Sales Wholesale Customers

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



Disclaimer

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

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

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

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

NORD/LB has, however, taken extensive precautions to deal with potential conflicts of interest and to avoid them:

Arrangements for dealing with and avoiding conflicts of interest and for the confidential treatment of sensitive client and business data:

Business areas that may have regular access to sensitive and confidential information are classified as confidentiality areas by the Compliance Office and separated from other areas in terms of function, location and technical data processing measures. The trading division (Markets) is classified as such a confidentiality area. The exchange of information between individual confidentiality areas requires the approval of the Compliance Office.

The forwarding of confidential information which may have an impact on securities' prices is monitored by the NORD/LB Compliance Office, which is independent of the trading, business and settlement departments. The Compliance Office can issue any trading prohibitions and restrictions which may be necessary to ensure that information which may have an influence on securities' prices is not misused and to prevent confidential information from being passed on to areas which may only use publicly accessible information. Employees of the Markets Strategy & Floor Research unit are obliged to inform the Compliance Office of all transactions (including external) that they carry out for their own account or on behalf of a third party or in the interests of a third party. This will enable the Compliance Office to identify any unauthorised transactions by these employees.

Further information on this can be found in our Conflict of Interest Policy, which is available on request from the NORD/LB Compliance Office.

Supplementary important information:

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

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



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

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

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

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

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

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

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

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

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

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

Additional information for Recipients in Australia

NORD/LB IS NOT A BANK OR DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE 1959 BANKING ACT OF AUSTRALIA. IT IS NOT SUPERVISED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY.

NORD/LB does not provide personal advice with this information and does not take into account the objectives, financial situation or needs of the Recipient (other than for the purpose of combating money laundering).

Additional information for Recipients in Austria

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

Additional information for Recipients in Belgium

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



Additional information for Recipients in Canada

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

Additional information for Recipients in Cyprus

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

Additional information for Recipients in the Czech Republic

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

Additional information for Recipients in Denmark

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

Additional information for Recipients in Estonia

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

Additional information for Recipients in Finland

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

Additional information for Recipients in France

NORD/LB is partially regulated by the "Autorité des Marchés Financiers" for the conduct of French business. Details concerning the extent of our regulation by the respective authorities are available from us on request.

The present information does not constitute an analysis within the meaning of Article 24 (1) Directive 2006/73/EC, Article L.544-1 and R.621-30-1 of the French Monetary and Financial Code, but does represent a marketing communication and does qualify as a recommendation pursuant to Directive 2003/6/EC and Directive 2003/125/EC.

Additional information for Recipients in Greece

The information contained herein gives the view of the author at the time of publication and may not be used by its Recipient without first having confirmed that it remains accurate and up to date at the time of its use.

Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Investment funds have no guaranteed performance and past returns do not guarantee future performance.

Additional information for Recipients in Indonesia

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

Additional information for Recipients in the Republic of Ireland

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

Additional information for Recipients in Japan

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

Additional information for Recipients in South Korea

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



Additional information for Recipients in Luxembourg

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

Additional information for Recipients in New Zealand

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

Additional information for Recipients in the Netherlands

The value of your investment may fluctuate. Past performance is no guarantee for the future.

Additional information for Recipients in Poland

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

Additional information for Recipients in Portugal

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

Additional information for Recipients in Sweden

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

Additional information for Recipients in Switzerland

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

Additional information for Recipients in Singapore

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

Additional information for Recipients in the Republic of China (Taiwan)

This information is provided for general information only and does not take into account the individual interests or requirements, financial status and investment objectives of any specific investor. Nothing herein should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the information provided herein when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice.

NORD/LB has taken all reasonable care in producing this report and trusts that the information is reliable and suitable for your situation at the date of publication or delivery. However, no guarantee of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information given. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

Information for Recipients in the United Kingdom

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



Additional information

Time of going to press: 22 April 2021 08:56h (CET)

Disclosure of possible conflicts of interest at NORD/LB in accordance with Section 85 (1) of the German Securities Trading Act (WpHG) in conjunction with Article 20 of the Market Abuse Regulation (EU) No. 596/2014 and Articles 5 and 6 of Regulation (EU) 2016/958.

None

Sources and price details

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

Basis of valuation and frequency of updates

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

Recommendation system

Positive: Positive expectations for the issuer, a bond type or a bond placed by the

Neutral: Neutral expectations for the issuer, a bond type or a bond of the issuer.

Negative: Negative expectations for the issuer, a type of bond or a bond placed by the issuer. **Relative Value (RV):** Relative recommendation to a market segment, an individual issuer or a

range of maturities.

Breakdown of recommendations (12 months)

Positive: 37% Neutral: 55%

Negative: 8%

Recommendation record (12 months)

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

Issuer / security Date Recommendation Bond type Cause

Distribution: 22.04.2021 16:14