



Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research





Agenda

N	la	rb	۵ŧ	O١	ıΔ	r\	من	١.,
IV	Ιd	ГK	eι	U١	/e	rv	ıe	w

Covered Bonds	3
SSA/Public Issuers	4
Fourth and final round of PEPP reporting in 2020	6
Investment alternative: Paris metropolitan area (IDF and VDP)	13
ECB tracker	
Asset Purchase Programme (APP)	23
Pandemic Emergency Purchase Programme (PEPP)	28
Aggregated purchase activity under APP and PEPP	31
Charts & Figures	
Covered Bonds	32
SSA/Public Issuers	38
Overview of latest Covered Bond & SSA View editions	41
Publication overview	42
Contacts at NORD/IR	/12

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

Author: Henning Walten, CIIA

ECB meeting: PEPP adjustments to have minimal impact on the covered bond market

Tomorrow, on Thursday, the final ECB meeting of the year will take place. As previously mentioned on several occasions, we are expecting the PEPP and TLTRO modalities to be adjusted at the very least. In this context, the most recent data suggests that an expansion to the PEPP will have only an indirect influence on the covered bond market, as the volume of covered bonds under the PEPP has stagnated over the past four months and the programme is therefore not being actively utilised to purchase covered bonds (cf. article on PEPP reporting). In contrast, the adjustments that we are anticipating to the TLTRO programme are of much greater interest, as the tenders carried out in this year have at times revealed the extent of the influence that central bank liquidity at attractive conditions may exert on the market for publicly placed EUR benchmarks. Our assessments of the market impacts related to the decisions actually taken by the ECB will be outlined on Thursday as part of a "Fixed Income Special" article following this final ECB meeting of the year.

Longer maturities again observed in 2020

Over the past five trading days, there were again no new issuances of EUR benchmarks on the primary market to discuss here. UOB from Singapore therefore remains the last bank to be active in the EUR benchmark segment around two weeks ago. Overall, a total of EUR 92.2bn has been placed in the form of new issuances on the market during the current year. Out of a total of 110 deals from 18 jurisdictions, two have already been tapped in this year, which brings the overall volume for 2020 including taps to EUR 92.6bn. One trend that has emerged over the course of the past three years is a rise in the maturities of new issuances. While the average deal brought to market in 2018 featured a term to maturity of 7.8 years, the equivalent figure for 2019 had already risen to 8.2 years. For the current year, this figure is around eleven months higher, increasing the average term to maturity to 9.1 years overall. This is a development which can largely be attributed to yield levels, as investors should be offered the highest possible, albeit often still negative, yields over longer terms.

Issuer	Country	Timing	ISIN	Maturity	Volume	Spread	Rating

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

EUR sub-benchmarks in 2020

With an average term to maturity of 7.9 years, EUR-denominated sub-benchmark new issuances in 2020 tended to feature much shorter maturities. In comparison with the sub-benchmark deals placed in 2019, this was, however, still 0.8 years longer. In total, eight deals from five jurisdictions worth a total of EUR 2.05bn were placed in this sub-market in 2020. Three deals with a volume of EUR 750m came from Germany, followed by Finland (EUR 500m), where Oma Savings Bank was active with two bonds. It is notable that four of these deals were placed in January. A further two deals were then also brought to market in the first half of the year. In contrast, half of the 14 deals placed in this sub-market in 2019 were issued in Q3. Overall, the market is 46% down on the issuance volume from 2019 (EUR 3.8bn).



Market overview SSA/Public Issuers

Author: Dr Norman Rudschuck, CIIA

ECB: Waiting for Godot? Certainly not!

Nervous anticipation is the order of the day ahead of tomorrow's ECB meeting. It is expected that the European Central Bank will announce the results of the comprehensive review of its toolkit on 10 December 2020. We do not anticipate an interest rate cut. Decisions are rather more likely to focus on an increase in the PEPP by EUR 400bn and an extension of the time horizon until at least the end of 2021. In addition, we anticipate an indication of how TLTRO and tiering will be structured going forward. In particular, (increased) supply in 2021 and a further increase in the level of demand will continue to be largely determined by the ECB in 2021 as well. We will provide an initial assessment of the measures resolved after the ECB meeting as part of a NORD/LB Fixed Income Special to be published tomorrow, Thursday. The topic will also be further examined next week in the final issue of the year of this publication.

Italy's opposition party against ESM reform but happy to get billions of euros in aid

Former Italian Prime Minister Berlusconi recently said that his opposition party, Forza Italia, would not support a reform of the ESM. This was yet another move which got the government into trouble ahead of a crucial parliamentary vote. A united Europe during the pandemic? Certainly not! This was also highlighted by Hungary and Poland vetoing the EU budget. However, when money arrives or is authorised more or less automatically, countries are more than happy to accept it. On Monday, Italy's Council of Ministers reviewed the Recovery Plan with the focal points of the large-scale investment plan for using the more than EUR 200bn, although the outcome of this review is as yet unknown. This considerable sum of money is made available to Italy by the EU as part of a redevelopment programme, the Recovery Fund. The six relevant segments for drawing on the capital include digital, environment, health, infrastructure, education and social inclusion. A total of 60 projects are said to be in the pipeline for 2021 alone. The payment of these funds is also being vetoed by the two eastern European countries. Nevertheless, Italy's Prime Minister, Giuseppe Conte, seemed confident. The rule of law is non-negotiable, he said. The exact impact of his own opposition vetoing the ESM reform remains to be seen.

Rating updates for French agencies

Fitch has affirmed the issuer default rating (IDR) of Caisse des dépôts et consignations (CDC) as AA with a negative outlook. Fitch considers CDC, unchanged, as a government-related entity (GRE) of the French state and aligns it ratings with the sovereign. This reflects the very close ties between CDC and the state as well as the strong incentives for the state to support CDC if necessary. This assessment is also accurate, 1:1, for the Fitch report on CADES (Caisse d'amortissement de la dette sociale). Moody's additionally confirmed the issuer default rating of EPIC Bpifrance as Aa2 (stable). This decision reflects the particular legal status of the financial institution, which is wholly owned by the French government, and its remit in the public interest, which is enshrined in French law. Moody's also aligns its EPIC ratings with those of the French sovereign rating.



EIB knows no limits

The EIB and Spire Global announced venture debt financing of up to EUR 20m at the Web Summit 2020. The start-up has the biggest constellation of multi-purpose satellites worldwide. With the funds from the EIB, the EU's facility for long-term financing, Spire will advance investments as well as research and development. The focus is on nanosatellites as well as expanding activities in premium maritime, aviation and weather analysis. The EIB intends to cooperate with the European Space Agency (ESA) and other aerospace organisations to provide increased support for European space start-ups in future. In this endeavour, it is supported by the European Fund for Strategic Investments (EFSI), the centrepiece of the investment offensive for Europe.

NWB Bank issues its first ever SDG Housing Bond in US dollars

NWB Bank (NEDWBK) from the Netherlands recently launched its first SDG Housing Bond denominated in US dollars. The deal worth USD 1.0bn with a maturity of five years was placed in the market on 24 November 2020. The pricing of ms +9bp was two basis points tighter than communicated as part of the guidance. According to information from the bank, this transaction was comfortably oversubscribed. The issuing proceeds are to be used to finance affordable and sustainable social housing in the Netherlands, in line with the <u>SDG Housing Bond Framework</u>. Furthermore, the deal is to be seen as part of a strategy to raise a minimum of 25% of long-term funding per year via sustainable bonds. It is therefore hardly surprising that the financial institution had already placed EUR denominated benchmark bond issues in SDG Housing Bond format in August (EUR 1.0bn, 15y, ms +10bp) and April (EUR 2.0bn, 3y, ms +11bp) this year.

Primary market

As the end of the year approaches, primary market activities in the SSA segment are gradually slowing down - and, rumour has it, so are investing activities. In addition to many issuers having turned their backs on the primary market recently, the flocks of investors are also trying to close their books early. Only one other deal in EUR benchmark format has been recorded since 25 November this year, although that deal was flanked by two notable tap issues in the past five trading days. The EU has already increased it benchmark bond issue, originally launched in June 2020 (EUR 500m, 15y, ms +8bp), for the third time. A total of EUR 600m was raised at ms -10bp, with the spread tightening by two basis points. At the start of the trading week, Germany's capital city Berlin also approached investors, tapping its BERGER 0.01 07/02/30 issue (also placed in June this year) for EUR 250m at ms +2bp. In fact, this was the fourth increase in volume, which now stands at EUR 1.4bn. Yesterday, Tuesday, another of the German Bundeslaender in the form of the Free State of Saxony was present in the market. It launched this week's only benchmark bond issue worth EUR 500m, with a maturity of 15 years. This means that Saxony's primary market activities in 2020 have comprised five benchmark bond issues with a total volume of EUR 2.5bn. Taking into account past issuance history in the final month of the year, we expect primary market transactions to be few and far between at most in the remaining weeks of the year. In 2019, not a single deal was placed in the market in December, whereas one transaction occurred in December 2018. If this year is the same, the SAXONY deal would already have fulfilled that quota.

Issuer	Country	Timing	ISIN	Maturity	Volume	Spread	Rating
SAXONY	DE	08.12.	DE0001789311	15.0y	0.50bn	ms +4bp	-/-/AAA

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



Covered Bonds/SSA Fourth and final round of PEPP reporting in 2020

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

Further adjustment of PEPP modalities expected

On 18 March this year, the European Central Bank responded to the global COVID-19 pandemic by setting up a specific purchase programme (Pandemic Emergency Purchase Programme, PEPP), after previously increasing the existing Asset Purchase Programme (APP) by a volume of EUR 120bn up to year-end 2020. The PEPP initially had a purchase volume of EUR 750bn and net purchases were planned at least up to the end of 2020. It was then expanded on 4 June 2020 by a further EUR 600bn to currently EUR 1,350bn, with net purchasing activities also extended at the same time by at least six months up to the end of June 2021. The unchanged prerequisite for ending net purchases on this cut-off date is that, in the ECB's assessment, the impact of the COVID-19 pandemic on the real economy will already have been overcome at that point in time. In contrast, reinvesting of PEPP securities which mature will continue until at least the end of 2022. Following the significant deterioration of the pandemic in the last few weeks, it is likely that the ECB will resolve a further adjustment of the programme terms at its meeting tomorrow. In addition to an increase in the volume of EUR 400bn to then EUR 1,750bn, we expect the announcement to include an extension of the programme until at least the end of 2021. In this context, reinvesting beyond the end of 2022 would also be opportune, in our opinion.

Currently more than half of the volume already invested

Every two months, we take the publication of the latest comprehensive PEPP reporting as an opportunity to look at the development and structure of the PEPP, and today it is time for this again. The charts on which the following information is based are available, as usual, in our weekly ECB tracker. At the end of November, the PEPP volume amounted to exactly EUR 700bn and had therefore increased by a further approximately EUR 130bn (+23.4%) since the last comprehensive reporting at the turn of the month of September/October. Compared with the APP, which has a volume of EUR 2,847.3bn, the PEPP remains small. Yet, considering the volume purchased in the period during which the two programmes have coexisted, the opposite picture emerges. In the months from March to November, around 70% of the volume purchased by the ECB was attributable to the PEPP. In addition, the overall volume purchased under the PEPP is likely to be slightly higher than the current volume, since maturities that have already occurred under the PEPP amount to around EUR 39.4bn. Reporting based on the APP reporting in terms of PEPP maturities that have already occurred and the upcoming maturities is still missing from the Eurosystem's overall reporting on the PEPP. If we were granted one wish for 2021, it would be for the reporting to be adjusted to include this helpful aspect, working towards greater transparency.



Estimated portfolio development

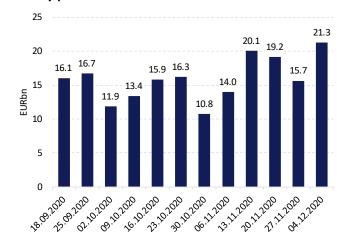
Assumed future purchase pace Weekly net purchase volume PEPP Limit hit in... Average net weekly purchase volume so far EUR 19.9bn 32 weeks (16 July 2021)

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

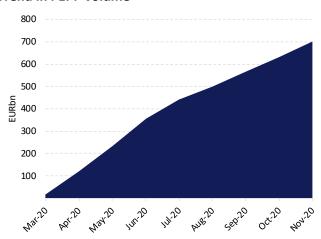
Adjustment of PEPP volume can be expected

In the run-up to its final meeting of 2020 tomorrow, Thursday, the ECB announced that it would comprehensively review its toolkit. In our view, it is justified to assume already that, as a minimum, adjustments will be made to the PEPP and TLTRO programmes, paving the way for 2021. Statements made by prominent central bankers ahead of the landmark meeting, in which the ECB is likely to respond to current pandemic-related developments, pointed in this direction. It is to be assumed that, at the very minimum, the new lockdown measures will delay and/or slow down the economic recovery. ECB Chief Economist Philip Lane indicated that a return to sustained GDP growth rates such as those seen in 2019 is not currently expected before autumn 2022 at the earliest.

Weekly purchase volume



Trend in PEPP volume



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

Share of public sector assets continually rises

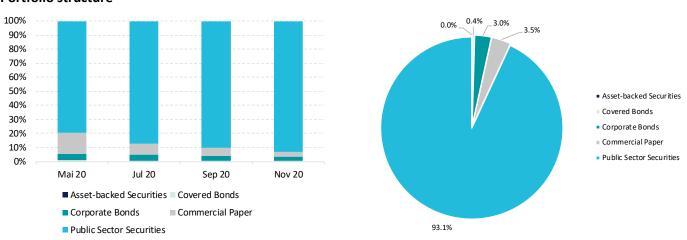
Based on the latest PEPP report, it is evident that the PEPP's focus on public sector assets has further intensified significantly in the last couple of months. While the first PEPP report indicated the share of public sector assets as totalling 79.5%, this share has continuously increased since then and now amounts to 93.1%. Accordingly, the shares of corporate sector assets and covered bonds have gradually decreased. Corporate assets, which comprise commercial paper and corporate bonds, now amount to only 6.5%, whereas their share was 19.6% at the end of May. Conversely, the volume of covered bonds under the PEPP, which started with a share of 0.9%, has stagnated since July 2020. In fact, the volume held decreased by EUR 5m in the last four months. Asset-backed securities have continued to be ignored and were at no time purchased under the PEPP, although such purchases would theoretically be possible under the self-imposed terms.



Volumes of the asset classes (EUR m)

	Asset-backed Securities	Covered Bonds	Corporate Bonds	Commercial Paper	Public Sector Securities	PEPP
Sept 2020	0	3,123	20,418	31,988	510,112	565,641
Nov 20	0	3,123	20,760	24,306	650,272	698,461
Δ	0	0	+342	-7,682	+140,160	+132,820

Portfolio structure

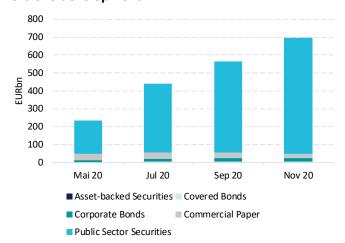


Source: ECB, NORD/LB Markets Strategy & Floor Research

Covered bonds no longer important under the PEPP

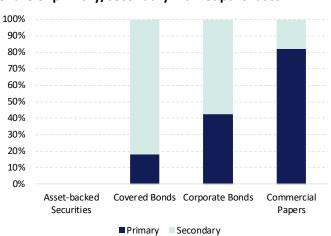
The above-mentioned trend in the covered bond volume under the APP highlights that the ECB is supporting the covered bond market via CBPP3, as part of its purchasing activities. We had partly put the blame for the almost unchanged volume throughout August and September on the low primary market supply. However, it now looks likely that the ECB currently does not consider the PEPP to be the most suitable programme for an intervention in the covered bond market.

Portfolio development



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

Share of primary/secondary market purchases





PEPP capital key...

To recap, since the structure and set-up of the PEPP differs from that of the PSPP, there are changes to the capital key as well as purchases resulting from maturities, because Greek bonds are eligible to be purchased under the PEPP but excluded under the PSPP. The capital key for Germany is 23.7%, followed by France (18.4%), Italy (15.3%) and Spain (10.7%). Next are supranationals at 10%. At 2.2%, Greece ranks between Austria (2.6%) and Finland (1.7%). If applicable, the ECB will be announcing tomorrow whether the share of supranationals is set to increase in the longer term. The increased supply from the EU as a new mega issuer would suggest that the ECB will make some finer adjustments in this respect. At 6.4%, the share of supranationals is still sufficiently far away from the 10% envisaged.

...compared with capital key for the PSPP

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

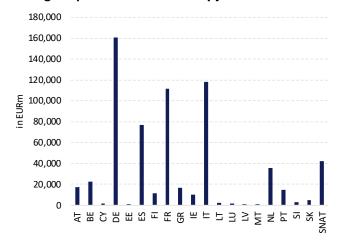
Overview of public sector assets under the PEPP

Jurisdiction	Holdings (in EUR m)	Adjusted [®] distribution key ¹	PEPP share	Δ vs. adjusted distribution key ²	Ø time to maturity (in years)	Market average ³ (in years)	Difference (in years)
AT	17,567	2.6%	2.7%	0.1%	10.9	7.1	3.9
BE	22,197	3.3%	3.4%	0.1%	6.3	9.4	-3.1
CY	1,484	0.2%	0.2%	0.0%	10.9	8.3	2.5
DE	160,619	23.7%	24.6%	0.9%	4.8	6.7	-1.9
EE	207	0.3%	0.0%	-0.2%	9.1	7.5	1.6
ES	77,128	10.7%	11.8%	1.1%	8.5	7.4	1.0
FI	11,169	1.7%	1.7%	0.1%	7.2	7.0	0.3
FR	111,810	18.4%	17.2%	-1.2%	8.6	7.3	1.4
GR	16,307	2.2%	2.5%	0.3%	8.4	9.4	-1.0
IE	10,317	1.5%	1.6%	0.1%	8.9	9.6	-0.7
IT	118,169	15.3%	18.1%	2.8%	6.8	6.9	0.0
LT	2,080	0.5%	0.3%	-0.2%	11.8	10.6	1.2
LU	1,244	0.3%	0.2%	-0.1%	7.1	6.4	0.8
LV	907	0.4%	0.1%	-0.2%	9.1	10.3	-1.2
MT	261	0.1%	0.0%	-0.1%	7.5	8.1	-0.7
NL	35,705	5.3%	5.5%	0.2%	4.1	7.3	-3.2
PT	14,809	2.1%	2.3%	0.2%	6.8	6.6	0.2
SI	3,131	0.4%	0.5%	0.0%	8.3	9.5	-1.2
SK	4,707	1.0%	0.7%	-0.3%	7.8	8.2	-0.4
SNAT	41,991	10.0%	6.4%	-3.6%	8.9	7.6	1.3
Total / Avg.	651,810	100.0%	100.0%	-	7.0	7.2	-0.3

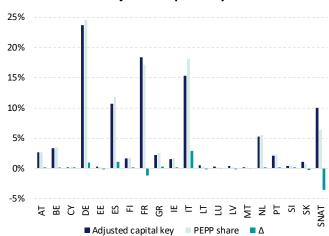
¹ Based on the ECB capital key, adjusted to include supras

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

Holdings of public sector bonds by jurisdiction



Deviations from adjusted capital key



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

Nominal holdings of public sector bonds

As illustrated in the above charts and the table, Germany is at the top of both the theoretical and actual ranking, with purchases in excess of EUR 160bn. According to the current reporting, German bonds have again been overbought, so that there is a positive variation from the adjusted capital key (+0.9 percentage points, or around EUR 6bn). Italian bonds have also been bought above the limit since the start of the PEPP (at +2.8 percentage points, the trend now is downwards). The only other upwards deviation worth mentioning was seen for Spain (also with a downwards trend at +1.1 percentage points). We ascertained departures from the key in a downwards direction, i.e. insufficient securities purchased, for France (-1.2 percentage points only) and supranationals (now as much as -3.4 percentage points). Each percentage point currently corresponds to EUR 6.5bn. All other deviations are around the zero line and do not therefore play a significant role.

Monthly PSPP deviation frequently a topic of discussion

It is our understanding that the PSPP portfolio has permanently been breathing since 2015. This is also what the ECB is communicating. In addition, the ECB does not consider itself obligated to meet the capital key exactly for its holdings in any one month. This applies not only to the net purchases made in the reporting month but also to the figures recorded since the programme was first set up in 2015. This is simply due to the fact that there are maturities in specific jurisdictions which may only be replaced subsequently and this means that, in net terms, portfolio outflows can actually occur instead of net purchases, as the vocabulary would suggest. Discrepancies have occurred and are occurring time and again with regard to the target figures for German, Italian and French as well as supranational bonds. In this respect, market observers are left at a loss as to why purchases were made under the one programme on behalf of the Eurosystem rather than on behalf of the other entity, in order to avoid such discussion in the media (or among market observers). Sometimes the figure is exceeded for the PEPP and there is a shortfall under the PSPP (or vice versa). In addition, we would welcome any positive change in reporting, for example to also facilitate providing information about the volume of reinvestments or to discern certain market shortages in good time, as has already been assumed for German and supranational bonds for many years. As a result of combating the pandemic, it is probable that significantly more securities will also be available for purchase in 2021, particularly in the public sector, than was assumed at the end of 2019 when the APP was restarted.



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

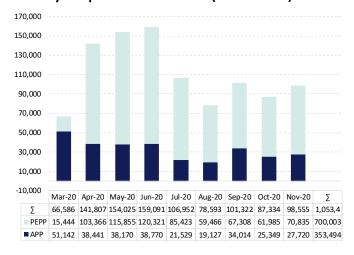
	APP	PEPP	APP & PEPP
Oct 20	2,867,802	629,169	3,496,971
Nov 20	2,895,521	700,003	3,595,524
Δ	+27,720	+70,835	+98,555

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

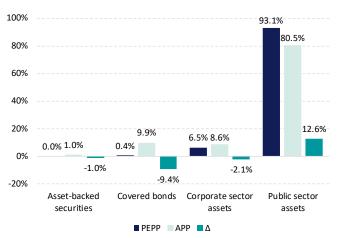
PEPP vs APP - structural differences are increasing

A comparison of the two ECB purchase programmes highlights that discrepancies for the various asset classes have slightly increased again in the past two months. The difference in covered bonds rose from 7.9 percentage points to 9.4 percentage points. At 12.6 percentage points difference, the delta has almost doubled for public sector assets. With regard to corporate sector assets, a reversal is evident. At the end of September 2020, the share of corporate assets under the PEPP was higher than that under the APP (2.3 percentage points). However, the CSPP share under the APP is now higher than the share of the relevant assets under the PEPP.

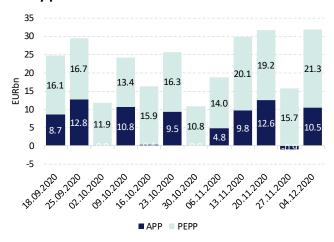
Monthly net purchases in EUR m (PEPP & APP)



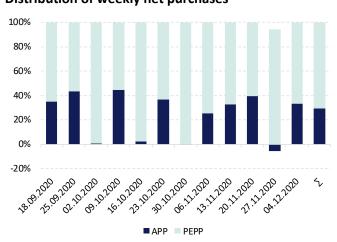
PEPP vs. APP: Portfolio shares



Weekly purchase volume



Distribution of weekly net purchases



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



Conclusion and outlook

With a volume of EUR 700bn as at the reporting month of November, or of EUR 717.9bn (latest weekly figure from 4 December 2020), a current total of 53.2% and therefore more than half of the PEPP worth EUR 1,350bn has already been invested in the market. However, in our view, this share is likely to change again tomorrow, since we expect the programme to be increased by EUR 400bn to then EUR 1,750bn. The share invested would then only be 41.0%. In addition to an adjustment of the volume, we also expect an extension of the duration by at least a further six months until the end of 2021, since the consequences of the pandemic are likely to have an impact on the economic situation for longer, despite the hope of a vaccination programme in the course of 2021. The figures published at the beginning of the week once again confirm the focus of the programme. Meanwhile, 93.1% of the PEPP volume is attributable to public sector assets, with this programme practically representing a PSPP 2.0. However, it should be noted that differences certainly exist regarding eligible assets. Conversely, covered bonds currently play no role as part of the PEPP. At tomorrow's meeting, the ECB is likely to set the course for its purchasing activities in the coming year and respond to the latest deterioration of the situation and/or adapt its tools to the latest conditions. We would not totally rule out further adjustments in 2021 altogether, given the flexibility shown since the start of the crisis, although we are of the opinion that the change of course happening tomorrow will mean there will not be an immediate need for further action in the first half of 2021. An increase in the share of supranationals is also conceivable sooner or later. For example, the increased supply from the EU as a new mega issuer would suggest that the ECB will make some finer adjustments. At 6.4%, the share of supranationals is still sufficiently far away from the 10% envisaged and will require no immediate action. The pandemic will still have a significant impact on the coming year and its hopefully more positive developments – particularly in comparison with recent weeks.



SSA/Public Issuers Investment alternative: Paris metropolitan area (IDF and VDP) Author: Dr Norman Rudschuck, CIIA

Introduction and structure of France In this edition we are keen to take a look at the French region Île-de-France (IDF) and the local authority Ville de Paris (VDP). Both issuers represent an interesting investment alternative, especially for green bond investors. In administrative terms, the decentralised unitary state of France is divided into 18 regions (régions), 101 departments (départements), 335 arrondissements, 2,054 cantons and 35,357 municipalities (communes). None of these categories includes the Ville de Paris special status entity that we are looking at here, which was created in 2019 from a merger of the municipality of Paris and the Paris department. The new status means that a single authority now exercises the powers of the city administration and the department. The regions are the most recent structure of French local government and were introduced in France with the 1986 decentralisation law. Various reforms have strengthened the role of the regions. Nevertheless, France is regarded as a unitary state, as the regions, unlike the German federal states or the US states, do not have the character of a state. Each region elects regional councils (Conseils Régionaux) for six years, which appoint the president of the regional council. In general the regional councils primarily control the economic aspects of the region. Thus, the regional council determines the budget, the staff and various political decisions. Its responsibilities include regional planning, economic development, vocational training and rail passenger transport. The French department created during the revolution of 1789 corresponds to a German regional authority. The last reorganisation of the departments took place in 2011. An administrative officer (Préfet), appointed by the government, manages the department. There is also the departmental council (Conseil Départemental), whose powers were strengthened by the last decentralisation law. Its tasks consist of administering the budget and managing staff. The departmental council is elected for six years by the cantons, which, as subdivisions of the departments, form the electoral districts. The departments

Political system

Overall, the administration in France is characterised by the principle of free administration through elected councils and the limitation of the competence of the local authority to its territory. In addition, the responsibilities and resources must comply with the legal requirements. The state plays a key role in this, particularly in organising the sectors and determining resources. At national level, France has a semi-presidential system of government. The executive is composed of the President, who plays the central role in French politics, and the government, which is headed by a Prime Minister and appointed by the President. The legislature is characterised by a bicameral system, consisting of a directly elected National Assembly and a Senate elected by representatives of the regions, departments and municipalities.

are also divided into arrondissements, which in turn are made up of the municipalities.



Political and economic tensions

Emmanuel Macron has been President of France since 14 May 2017. Macron stands for liberal, progressive politics and is committed to deeper European integration. His extensive reform policy met with strong resentment within the population in the course of its implementation. At the end of 2018, the "yellow vest" movement was born, which called for nationwide protests and took to the streets to object to various points. For example, the protesters opposed the higher taxation of fossil fuels and demanded an increase in the minimum wage and the introduction of direct democracy. In the course of the protests, which found supporters from all sides of the political spectrum, Macron's popularity ratings plummeted. The situation calmed down somewhat and the protests subsided in the months that followed, also due to concessions by the government. Nevertheless, the situation in the country remains tense. The rural population in particular feels increasingly disconnected, and the administration is regarded as run-down and the social system as outdated. Last but not least, the coronavirus pandemic, which has hit France particularly hard, and Islamist terrorist attacks also provide political dynamite that populists like Marine Le Pen are trying to exploit for their own ends. The politician from the right-wing extremist collective movement Rassemblement National is almost neck-and-neck with the incumbent president in current election polls with 25% of the vote. Although the majority of the French support the President's tough stance to contain the pandemic, confidence in the incumbent continues to wane in the face of the grievances. In surveys 62% of French people said they had no confidence in the government, and almost half of the voters do not see a better alternative.

Covid-19 in France

The effects of the pandemic are also heavily impacting the sixth-largest economy in the world, with the result that France is facing an even sharper decline in economic output compared with other EU countries. This can be explained, on the one hand, by France's high-level dependency on industries that have been hit very hard by the crisis, such as tourism and aircraft construction. On the other hand, during the coronavirus crisis, France has adopted comparatively tough lockdown measures, which have also taken their toll on companies from other sectors. Some 600,000 jobs have been lost since the beginning of the year, despite the fact that the government has provided extensive assistance to companies to finance short-time working. The second wave of the pandemic is also hitting France very hard. At the end of October, the number of (identified) new infections was almost ten times as high as at the peak of the first wave in April, meaning that a second strict lockdown was imposed at the end of October. As a result of a significant fall in new infections, the measures were partially eased at the end of November and most shops were allowed to reopen. However, restaurants, bars and leisure facilities are still closed. The looming recession is to be countered with a EUR 100bn stimulus package, EUR 40bn of which is to come from EU subsidies. The funds are also intended to contribute to the goal of climate neutrality by 2050 and a large part of the money is to be used for future technologies in order to reform the country's economy. A total of EUR 30bn alone has been earmarked for ecological measures, such as the modernisation of buildings, transport and energy, while a sum of EUR 34bn is to be invested aimed at ensuring the competitiveness of companies and the remaining EUR 36bn has been earmarked for "social and solidarity" measures, which are to be used specifically to preserve jobs. With the help of the package, France aims to return to pre-crisis levels within two years.



(values in EUR) Balance (vs. 2018) -73.0bn (-19.9bn) Balance/GDP (2018) -3.0% (-2.3%) GDP (vs. 2018) 2.425bn (2.361bn) GDP per capita (vs. 2018) EUR 35,960 (EUR +410) GDP growth (2018) +1.5% (+1.8%)

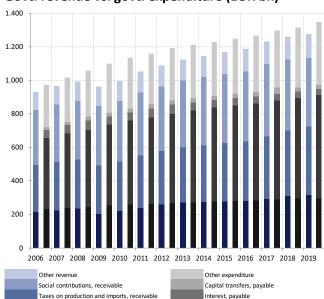
Unemployment (2018)

8.5% (9.0%)

Development of the French economy

France's public debt rose steadily in the wake of the financial crisis and has stagnated in recent years at a level just below 100% of GDP. With debt amounting to 98.4% of GDP in 2019, France is among the five EU countries with the highest public debt ratio. For the year 2020, the coronavirus pandemic is expected to cause a sharp jump in national debt similar to what happened after the financial crisis. The International Monetary Fund (IMF) estimates that by the end of 2020 France will have debt amounting to 115.4% of GDP, which means that its public debt ratio will be almost twice as high as the 60% ceiling set by the EU convergence criteria. According to the IMF, France's GDP will shrink by 9.8% in 2020, while the economic output of the EU as a whole is expected to fall by 7.6%. In order to support economic recovery in the wake of the coronavirus crisis, the French government has announced that it will tolerate high deficits in 2020 and 2021. The deficit in 2020 is expected to be 11.4%, and a deficit of 6.7% is forecast for 2021. In 2019, before the outbreak of the pandemic, the deficit was only 2%. France's national budget was last balanced in 1974. The budget balance in relation to GDP is expected to be -10.8% in 2020. As a result of the temporary flattening of the pandemic in the summer, the economy was able to recover to some extent in Q3 2020. Between July and September, GDP rose by 18.2% compared with Q2. Exports rose by 23%, investments by 20% and consumer spending by 17% compared with the previous quarter. The lockdown measures introduced at the end of October are considerably dampening the outlook for the fourth quarter, which is why Finance Minister Bruno Le Maire is expecting a difficult last quarter of 2020. According to the IMF, unemployment in France in 2019 stood at 8.5%, equating to a 0.5% decline on the previous year. The INSEE statistics office surprisingly reported a decline in the unemployment rate to 7.1% for the first half of 2020. However, given that only those actively seeking employment – which was practically impossible during the first lockdown – are regarded as officially unemployed, INSEE warned that the data was distorted and that actual unemployment was likely to be higher. The IMF expects the unemployment rate to rise to 8.9% in 2020 and 10.2% in 2021.

Govt. revenue vs. govt. expenditure (EUR bn)

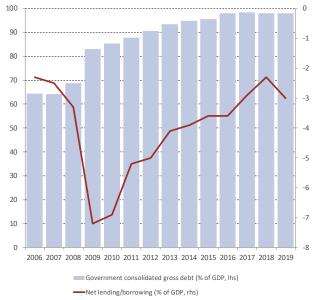


nterest, payable Social benefits and social transfers

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

Compensation of employees, payable

Govt. debt vs. budget balance (%)





Île-de-France (IDF) and Ville de Paris (VDP) – the conurbation around the capital

The Île-de-France region comprises the conurbation surrounding the capital city of Paris. Accounting for only 2% of the total area of France, IDF is the second-smallest region in terms of area, but with 19% of the total population it is also by far the most populous. The 12.2 million inhabitants are spread over eight departments. The Regional Council with 209 members was elected in 2015, with the next election scheduled to take place in 2021. As a cosmopolitan city, Paris particularly attracts young people: 55% of the population is under 40. Thanks to a multitude of sightseeing attractions, a culture steeped in history and two large nature reserves, not only Paris but the whole of the Île-de-France is a tourist magnet. In 2015, the region was ranked first in the Global Tourism Comparison with over 50 million tourists. For years, IDF has also been one of the regions with a brisk rate of primary market issues. It currently has 18 outstanding bonds with a total volume of around EUR 5.1bn. With a focus on green and sustainable bonds, the region is interesting for investors in sustainable bonds (ESG criteria). The Ville de Paris, the centre of Île-de-France, can undoubtedly be described as one of the most important cities in Europe with a population of 2.2 million. In addition to IDF, the VDP has also set itself the goal of promoting environmentally friendly and responsible financing. For this reason, the city issued the first green bond in 2015 with the "Parisian Climate Bond" and the second green bond in 2017 with the "Parisian Sustainability Bond".

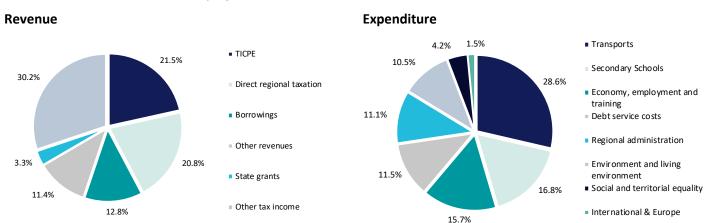
Economic situation in the Paris region

In addition to its cultural and political importance, île-de-France, with Paris as the capital, is also the country's economic centre. The GDP of IDF in 2018 (latest data point) stood at EUR 734bn, which is equivalent to roughly 31% of French GDP in 2018. The GDP of Île-de-France alone is therefore higher than that of Norway or Belgium. With a per capita GDP of EUR 59,700 (2018), IDF is the most prosperous region in France, well above the European Union average of EUR 31,080 (2018). GDP data for Île-de-France for 2019 is not yet available. The region is extremely attractive for both national and international companies, with almost one million enterprises concentrated in IDF. With around 53 million square metres of commercial space, the region has the largest volume in this category in Europe. A significant number of 28 of the 31 French companies in the Fortune Global 500 have their headquarters in the Paris area. The region is thus one of the largest economic clusters in Europe. Île-de-France's economy is highly diversified. Important sectors include banking and insurance (BNP Paribas, AXA), the automotive industry (Renault, Groupe PSA), the energy sector (Total), and the production of luxury goods (LVMH, Kering), to name but a few examples. Paris is also a stronghold within Europe for start-ups, with more than 8,000 startups located in the French capital at present. Tourism, as mentioned above, also plays a major role. More than 500,000 jobs in the Île-de-France are in this sector, which has suffered greatly as a result of the pandemic crisis. Paris is still almost universally regarded as one of the European hotspots of the pandemic, with more than EUR 7bn in losses expected in 2020, as the number of tourists is estimated to have halved compared to the previous year. Europe's largest infrastructure project, the "Grand Paris Express", is currently being implemented in Paris. This involves the extension of the Paris metro network at an estimated cost of EUR 35bn. The project is scheduled for completion in 2030 and the first part of the network will be operational before the 2024 Paris Olympics.



Île-de-France: Balanced regional budget only possible through net borrowing

Since 2016, Île-de-France has set itself the goal of reducing administrative costs and devoting a larger share of its budget to investment. The latter includes modernising public transport, building secondary schools and supporting research. While in 2016 only 40% of the budget was spent on investment, for 2020 this has already increased to 54%. This corresponds to an increase in investments of EUR 2.15bn over the same period, while administrative costs were reduced by EUR 1.5bn. In addition, there is an increasing focus on improving the environment, with the region having formulated concrete targets for reducing air pollution and lowering energy costs. In 2020, IDF's budget will amount to EUR 4.99bn, which will be distributed over the following areas: transport and mobility (29%), secondary schools (17%), economy, employment and training (16%), interest charges (12%), regional administration (11%), environment (10%), social and territorial equality (4%) as well as international and European affairs (1%). The revenue side of the region is made up of tax revenues (73%), borrowing (13%), other revenues (11%) and government subsidies (3%). Tax revenue is made up of the domestic excise duty on energy products (TICPE, Taxe intérieure de consommation sur les produits énergétiques), the levy on the value added by businesses (CVAE, Cotisation sur la valeur ajoutée des entreprises) and VAT. Borrowing is primarily through bond issues (87.5%). In addition, capital is raised through loans and SSD deals (12.5%). For example, there is a long-term partnership with the European Investment Bank (EIB), which helps to finances sustainable investment projects.



Source: Île-de-France, NORD/LB Markets Strategy & Floor Research

Supplementary Covid-19 budget

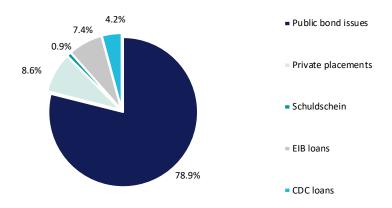
To contain the coronavirus pandemic in Île-de-France, a supplementary budget was adopted in June 2020 to cushion against the crisis and introduce the initial steps of a regional recovery plan. In particular, the supplementary budget covers the adoption of the 2019 profits (EUR 276.28m), the decrease of EUR 129.54m in the region's revenue (excluding debt), the increase of EUR 474.92m in debt and an upward adjustment of EUR 328m in the debt ceiling. The Recovery Plan provides for a budget of EUR 1.3bn to limit the economic and social impact of the crisis. Specifically, the plan provides, for example, support for SMEs, training for the unemployed and the promotion of ecological technologies in the transport sector.



Île-de-France funding

Île-de-France is a regular player on the capital market. The issuance of public bonds is the main funding method. It accounts for 78.9% of total funding, followed by private placements (8.6%). The region is also open to SSD deals. The region's total debt amounted to EUR 5.4bn at the end of 2019, which means that the debt level has remained stable since 2015.

Île-de-France funding methods



Sustainability as a fundamental principle

With its historical monuments and extensive natural environment, Île-de-France is an active proponent of sustainable development. Politicians are focusing on reducing environmental pollution, with the aim of becoming Europe's most environmentally friendly region. The concept of sustainability is also reflected in the refinancing. Green bonds have long been an integral part of the region's funding strategy. Looking back, the region has launched a total of eight green bonds with a total nominal value of EUR 3.2bn since 2012. This means that green and sustainable bonds currently account for about 65% of regional debt. IDF green bonds are listed in Barclays MSCI Green Index and in the S&P Green Bond Index. The Green and Sustainable Bond Framework, which IDF is guided by, includes the areas of sustainable mobility and renewable energies. In the context of the pandemic, a new sub-category was added to the Framework to improve the medical infrastructure. The proceeds of the 2020 bond issues will be used, among other things, to finance some of the measures of the Recovery Plan.

Rating and planned funding for the coming years

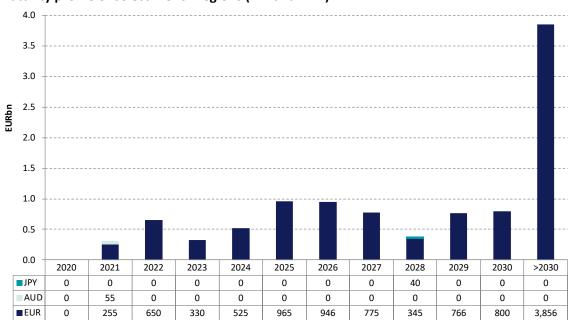
Île-de-France is rated by Moody's (02/2020: Aa2 [stable]) and Fitch (05/2020: AA [negative]). S&P discontinued its rating in 2012. Both Moody's and Fitch highlight IDF's sound debt management. Regular funding is provided through loans (12.5%) and bonds (87.5%). IDF bonds have an LCR level of 2A and are subject to a 20% risk weighting. Five green bond benchmark issues are planned by 2033. The average annual funding target until 2033 is around EUR 384m. Ville de Paris is rated by Fitch (03/2020: AA [negative]) and S&P (04/2020: AA [negative]). Among the French local and regional entities, VDP is the only one that Fitch rates with the "Stronger" risk profile. All others are rated "high mid-range". Fitch also praises VDP's debt management and strict spending discipline.



General inf.: IDF Outstanding bond volume EUR 5.1bn Of which EUR bonds EUR 5.0bn Bloomberg ticker

General inf.: VDP
Outstanding bond volume
EUR 5.2bn
Of which EUR bonds
EUR 5.2bn
Bloomberg ticker
VDP

Maturity profile of select French regions (IDF and VDP)



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

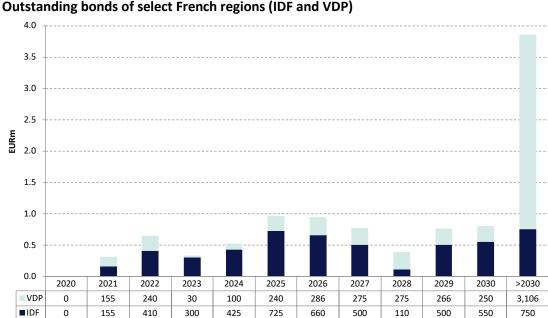
Outstanding volume

Of course, the two tickers mentioned above that we are focusing on here do not represent the entirety of French regions. Various other local authorities or regional vehicles or agencies are also active on the capital market (e.g. MARSE (City of Marseille) or CUDM (Communauté urbaine Marseille Provence Métropole). Nevertheless, based on our narrow definition of the relevant products, 67 bonds are now outstanding. This already indicates a certain granularity when it comes to Parisian regional bonds. A total of only EUR 10.3bn is outstanding. We were able to detect foreign currencies in one bond each denominated in AUD and JPY, so the FX segment accordingly has hardly any share in the composition of the liabilities. Both FX bonds originate from IDF. This means that around 99% is diversified over the maturities. Nearly EUR 4bn will not fall due until after 2030, which suggests that very long-term refinancing is chosen (largely attributable to VDP). There is also another twist. All six benchmark bonds also belong to the IDF ticker, meaning that EUR 3.3bn of the EUR 5.1bn can be described as large-volume and liquid. VDP, on the other hand, has 49 ISINs outstanding, which are spread across a volume of EUR 5.2bn. IDF has also already gained experience in the ESG segment, as described above. Side note: The French government was also already active in the green bond segment, as were Germany and Belgium for example.

Fixed coupons dominate

Fixed coupons account for the dominant share of bonds from both issuers. Of the EUR bonds (65) we have identified, 59 bonds have a fixed coupon. This corresponds to 97.1%. Bonds with the classification "floating" (2.9%) follow thereafter. Both FX bonds also have a fixed coupon. Overall, the two issuers are therefore quite open to niche products in terms of their refinancing profiles (sub-benchmarks and possibly also private placements). The share of fixed coupons, measured in terms of e.g. German Bundeslaender, is rather high (Bundeslaender: approx. 69%). However, the refinancing strategies of both issuers are sufficiently varied, as explained above.

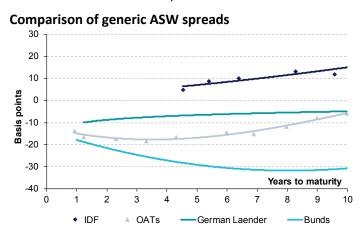


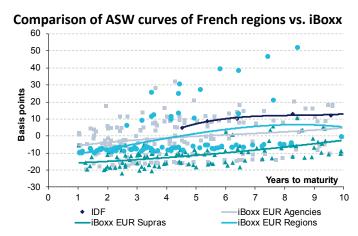


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

Paris regions vs. iBoxx regions index

Even compared to the iBoxx Regions, the two Paris regions trade with pick-up. At the long end, the spread difference is 10 to 15 basis points. At the middle end - IDF has no bonds outstanding for less than four years - the spread is even higher. Here we measured a difference of around 13 to 18 basis points. The differences vs. agencies and supras are somewhat higher. Compared with supras, which have an even better average rating, and the generally significantly higher liquidity of the bonds of these regular issuers, this is hardly surprising. Overall, IDF in particular is the only benchmark issuer with the widest spreads compared to its peers and could therefore - with limited liquidity - generate pick-up for investors. In addition, both issuers (IDF and VDP) may be open to private placements and certain yield expectations of institutional investors.





Source: Bloomberg, NORD/LB Markets Strategy & Floor Research; data from 01 Dec. 2020 eod



Regulatory overview for RGLAs* / ** (examples)

Issuer	Risk weighting	LCR classification	NSFR classification	Solvency II classification
Belgian regions	0%	Level 1	0%	preferred (0%)
German Bundeslaender	0%	Level 1	0%	preferred (0%)
French regions	20%	Level 2A	15%	preferred (0%)
Italian regions	20%	Level 2A	15%	non-preferred (individual review)
Austrian Bundeslaender	0%	Level 1	0%	preferred (0%)
Spanish regions	0%	Level 1	0%	preferred (0%)

^{*}Regional governments and local authorities

Source: NORD/LB Markets Strategy & Floor Research

Exceptions to scope of application of the Leverage Ratio (CRD Art. 2 no. 5) (examples)

France	Caisse des Dépôts et Consignations (CDC)
Germany	Kreditanstalt für Wiederaufbau (KfW), undertakings which are recognised under the "Wohnungsgemeinnützigkeitsgesetz" as bodies of state housing policy and are not mainly engaged in banking transactions, and undertakings recognised under that law as non-profit housing undertakings (e.g. Rentenbank, L-Bank, IFBHH, IBSH etc.).
Denmark	Eksport Kredit Fonden, Eksport Kredit Fonden A/S, Danmarks Skibskredit A/S and KommuneKredit
Belgium	Institut de Réescompte et de Garantie/- Herdiscontering- en Waarborginstituut
EU	Central banks of member states

Source: CRD IV, NORD/LB Markets Strategy & Floor Research

Regional governments and local authorities (solvency stress factor allocation of 0% possible; examples)

Country	Regional and local governments
Belgium	Municipalities (Communauté/Gemeenschappen), regions (Régions/Gewesten), towns (Communes, Gemeenten) & provinces (Provinces, Provincies)
Germany	Bundeslaender, municipalities & municipal associations
France	Regions (régions), municipalities (communes), Departments (Départements)

Source: (EU) 2015/2011, NORD/LB Markets Strategy & Floor Research

Summary of French regions

Risk weighting 20%

LCR classification Level 2A

NSFR classification 15%

Solvency II classification Preferred (0%)

Issuer (Ticker)	Inhabitants	Unemployment rate	GDP per capita (2018)	Outstanding volume	No. of bonds	Rating
IDF	12.1 million	7.1%	EUR 59,700	EUR 5.1bn	18	(AA / Aa2 / -)
VDP	2.2 million	6.1%	-	EUR 5.2bn	49	(AA / - / AA)
France	64.6 million	8.5%	EUR 35,100	EUR 1.823bn	66	(AA / Aa2 / AA)

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

^{**} NB: in the absence of an explicit guarantee from the respective nation state, the current LCR level is dependent on the relevant rating (see CQS classification and LCR classification of assets).



Liability mechanism

There is no explicit guarantee on the part of the French state for the regions or local authorities. However, since 2003 there has been a system of financial equalisation, consisting of payments between regions (horizontal financial equalisation) as well as payments from the state to the regions (vertical financial equalisation) (Article 72-2 of the Constitution). Due to their stable financial situation, the French regions have a good credit rating. Moreover, under the current system, it is not possible for regions to become insolvent.

ECB purchasing programmes

It is interesting to look at the Eurosystem's purchasing activities. Of course, there are many French names among the agencies: e.g. CADES, RESFER, UNEDIC, AGRFRNC, OSEOFI, SFILFR, SOGRPR. By early December 2020, 137 different French ISINs had been acquired by the Eurosystem since the start of the programme. By contrast, only seven bonds with the IDF or VDP ticker were placed on the Eurosystem's purchasing list over time. This is fewer than from both Spain or Belgium. The number of ISINs remains numerically small in comparison to German Bundeslaender. In fact, more than 440 different German Bundeslaender bonds had already been purchased in the same period.

Conclusion

The Île-de-France region has become increasingly well-established on the capital market in recent years. As a result of its activities in the ESG segment along with outstanding green bonds, it offers an interesting investment option, especially to investors who are willing to support sustainability and social projects. In addition, Île-de-France has a comparatively strong economic environment and qualifies for Moody's and Fitch ratings of Aa2 and AA respectively. Additional positive economic effects could also arise if banks decide to choose Paris as the new financial centre of Europe in the wake of Brexit, as has already happened to some extent. We would like to see VDP's investor relations expanded. The information available may be appropriate for a sub-benchmark issuer, but IDF's data situation and provision of information was nevertheless more transparent.



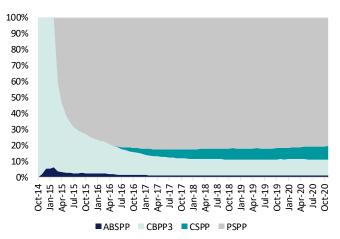
ECB tracker

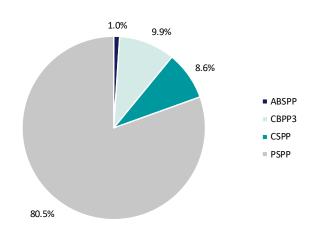
Asset Purchase Programme (APP)

Holdings (in EURm)

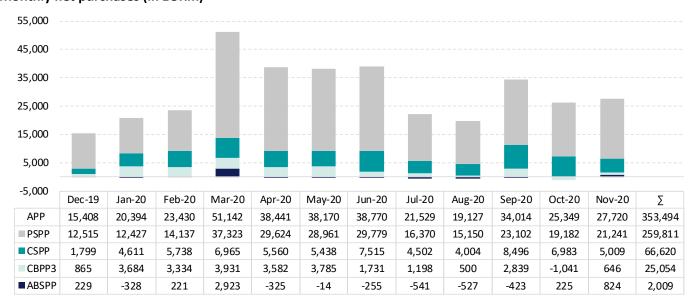
	ABSPP	СВРР3	CSPP	PSPP	APP
Oct-20	29,337	285,811	243,331	2,309,322	2,867,802
Nov-20	30,161	286,458	248,340	2,330,562	2,895,521
Δ	+824	+646	+5,009	+21,241	+27,720

Portfolio structure





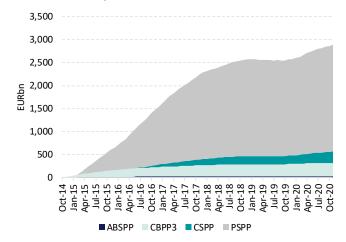
Monthly net purchases (in EURm)



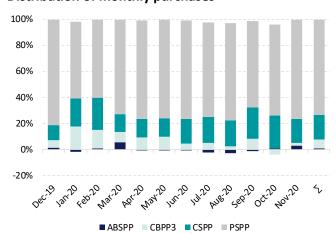
Source: ECB, NORD/LB Markets Strategy & Floor Research



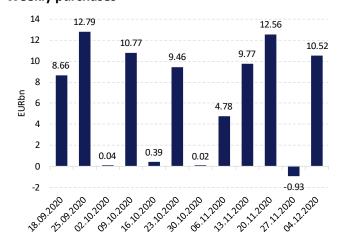
Portfolio development



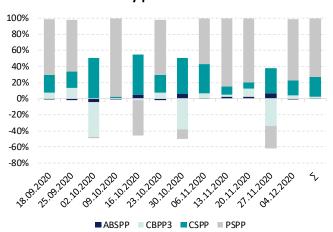
Distribution of monthly purchases



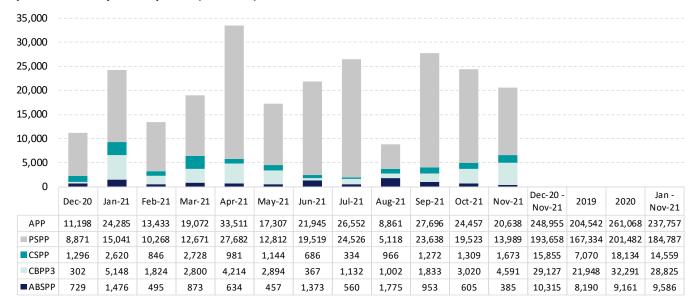
Weekly purchases



Distribution of weekly purchases



Expected monthly redemptions (in EURm)

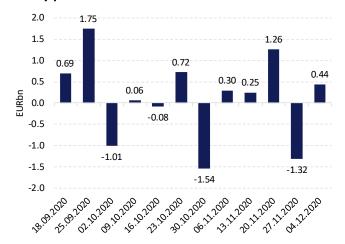


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

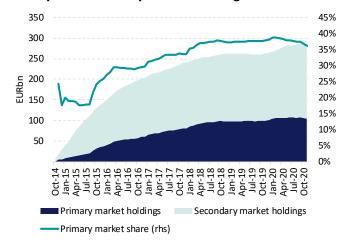


Covered Bond Purchase Programme 3 (CBPP3)

Weekly purchases



Primary and secondary market holdings

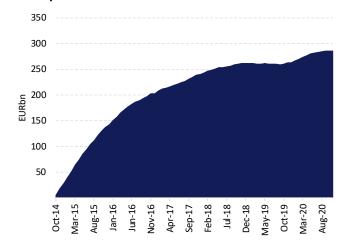


Distribution of CBPP3 by credit rating



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

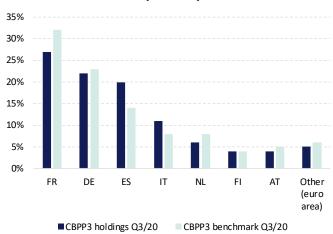
Development of CBPP3 volume



Change of primary and secondary market holdings



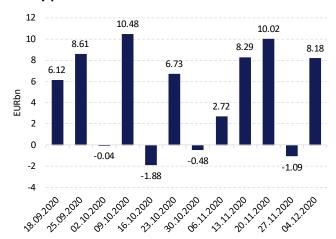
Distribution of CBPP3 by country of risk



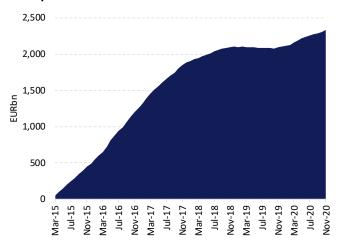


Public Sector Purchase Programme (PSPP)

Weekly purchases



Development of PSPP volume



Overall distribution of PSPP buying at month-end

Country	Adjusted distribution key ¹	Purchases (EURm)	Expected purchases (EURm) ²	Difference (EURm)	Average time to maturity in years	Market average in years ³	Difference in years
AT	2.701%	67,577	66,048	1,529	7.78	8.04	-0.3
BE	3.362%	85,867	82,213	3,654	8.29	10.10	-1.8
CY	0.199%	3,142	4,856	-1,714	9.98	9.09	0.9
DE	24.327%	575,158	594,868	-19,710	6.52	7.64	-1.1
EE	0.260%	263	6,357	-6,094	9.52	9.51	0.0
ES	11.004%	290,758	269,088	21,670	8.12	8.41	-0.3
FI	1.695%	35,448	41,450	-6,002	7.10	7.95	-0.8
FR	18.848%	484,506	460,892	23,614	7.25	8.25	-1.0
IE	1.563%	36,997	38,212	-1,215	8.75	9.85	-1.1
IT	15.677%	411,971	383,360	28,611	7.28	7.71	-0.4
LT	0.360%	4,471	8,793	-4,322	9.84	11.00	-1.2
LU	0.304%	2,904	7,433	-4,529	5.31	6.36	-1.0
LV	0.534%	2,904	13,060	-10,156	9.71	10.30	-0.6
MT	0.097%	1,215	2,367	-1,152	9.82	9.34	0.5
NL	5.408%	117,408	132,245	-14,837	7.61	8.45	-0.8
PT	2.160%	45,389	52,815	-7,426	7.12	7.38	-0.3
SI	0.444%	8,936	10,866	-1,930	9.33	10.11	-0.8
SK	1.057%	14,259	25,843	-11,584	8.24	8.57	-0.3
GR	0.00%	0	0	0	0.00	15.93	0.0
SNAT	10.00%	256,123	244,530	11,593	7.43	8.74	-1.3
Total / Avg.	100.0%	2,445,296	-	-	7.31	8.27	-1.0

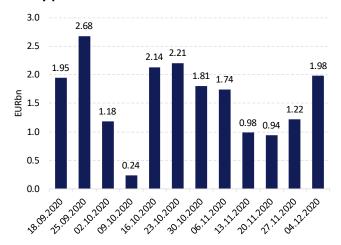
 $^{^{\}mathrm{1}}$ Based on the ECB capital key, adjusted to include supras and the disqualification of Greece

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

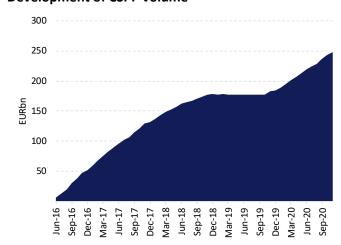


Corporate Sector Purchase Programme (CSPP)

Weekly purchases

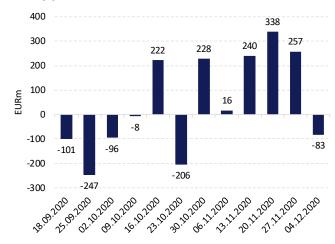


Development of CSPP volume



Asset-Backed Securities Purchase Programme (ABSPP)

Weekly purchases



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

Development of ABSPP volume



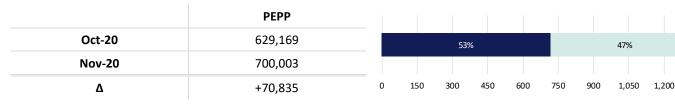


1,350

Pandemic Emergency Purchase Programme (PEPP)

Holdings (in EURm)

Volume already invested (in EURbn)



Estimated portfolio development

Assumed pace of purchases

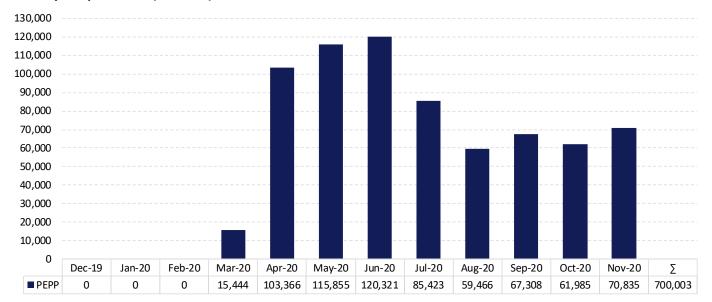
Weekly net purchase volume

Average weekly
net purchase volume so far

EUR 19.9bn

32 weeks (16.07.2021)

Monthly net purchases (in EURm)

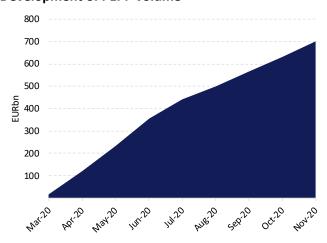


Weekly purchases



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

Development of PEPP volume

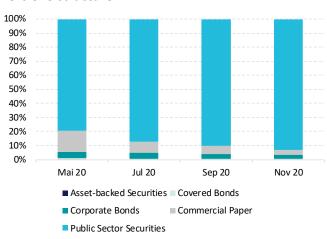


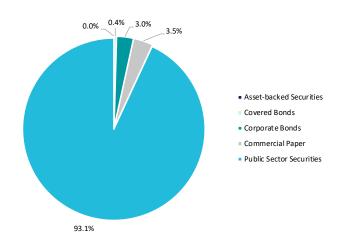


Holdings under the PEPP (in EURm)

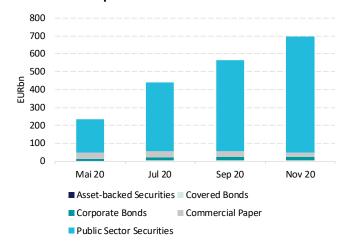
	Asset-backed securities	Covered bonds	Corporate bonds	Commercial paper	Public sector securities	PEPP
Sep-20	0	3,123	20,418	31,988	510,112	565,641
Nov-20	0	3,123	20,760	24,306	650,272	698,461
Δ	0	0	342	-7.682	140.160	132.820

Portfolio structure

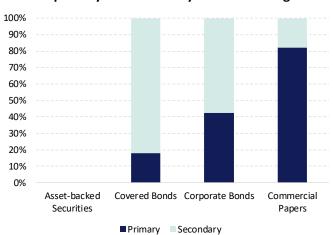




Portfolio development



Share of primary and secondary market holdings



Breakdown of private sector securities under the PEPP as of July 2020

	Asset-backed securities		Covered bonds		Corporate bonds		Commercial papers	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
Bestand in EURm	0	0	557	2,566	8,842	11,918	20,001	4,305
Anteil	0.0%	0.0%	17.8%	82.2%	42.6%	57.4%	82.3%	17.7%

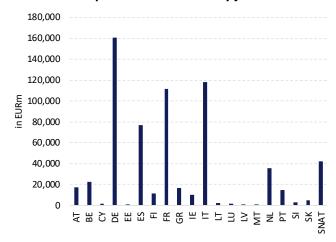
Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research



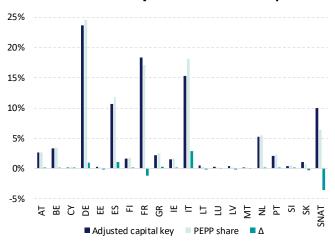
Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Adj. distribution key ¹	PEPP share	Deviations from the adj. distribution key ²	ø time to maturity (in years)	Market average ³ (in years)	Difference (in years)
AT	17,567	2.6%	2.7%	0.1%	10.9	7.1	3.9
BE	22,197	3.3%	3.4%	0.1%	6.3	9.4	-3.1
CY	1,484	0.2%	0.2%	0.0%	10.9	8.3	2.5
DE	160,619	23.7%	24.6%	0.9%	4.8	6.7	-1.9
EE	207	0.3%	0.0%	-0.2%	9.1	7.5	1.6
ES	77,128	10.7%	11.8%	1.1%	8.5	7.4	1.0
FI	11,169	1.7%	1.7%	0.1%	7.2	7.0	0.3
FR	111,810	18.4%	17.2%	-1.2%	8.6	7.3	1.4
GR	16,307	2.2%	2.5%	0.3%	8.4	9.4	-1.0
IE	10,317	1.5%	1.6%	0.1%	8.9	9.6	-0.7
IT	118,169	15.3%	18.1%	2.8%	6.8	6.9	0.0
LT	2,080	0.5%	0.3%	-0.2%	11.8	10.6	1.2
LU	1,244	0.3%	0.2%	-0.1%	7.1	6.4	0.8
LV	907	0.4%	0.1%	-0.2%	9.1	10.3	-1.2
MT	261	0.1%	0.0%	-0.1%	7.5	8.1	-0.7
NL	35,705	5.3%	5.5%	0.2%	4.1	7.3	-3.2
PT	14,809	2.1%	2.3%	0.2%	6.8	6.6	0.2
SI	3,131	0.4%	0.5%	0.0%	8.3	9.5	-1.2
SK	4,707	1.0%	0.7%	-0.3%	7.8	8.2	-0.4
SNAT	41,991	10.0%	6.4%	-3.6%	8.9	7.6	1.3
Total / Avg.	651,810	100.0%	100.0%	-	7.0	7.2	-0.3

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

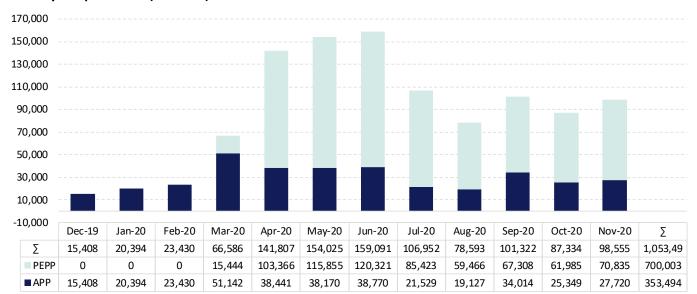


Aggregated purchase activity under APP and PEPP

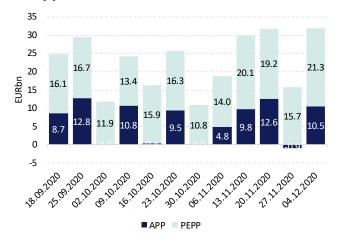
Holdings (in EURm)

	APP	PEPP	APP & PEPP
Oct-20	2,867,802	629,169	3,496,971
Nov-20	2,895,521	700,003	3,595,524
Δ	+27,720	+70,835	+98,555

Monthly net purchases (in EURm)

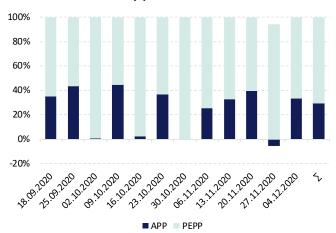


Weekly purchases



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

Distribution of weekly purchases



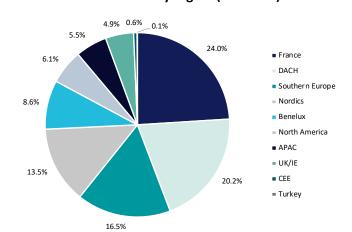


Charts & Figures Covered Bonds

EUR benchmark volume by country (in EURbn)

134.5; 14.3% 225.1; 24.0% = DE 33.0; 3.5% ■ ES 37.1; 4.0% = NL CA 41.6; 4.4% IT ■ NO 50.5; 5.4% ■ GB 151.9; 16.2% ■ SE 54.3; 5.8% = AT Others 56.8; 6.1% 59.0; 6.3% 94.3; 10.1%

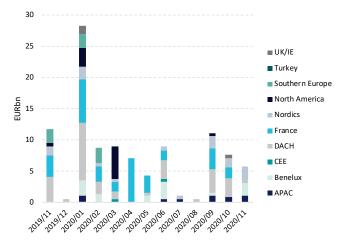
EUR benchmark volume by region (in EURbn)



Top-10 jurisdictions

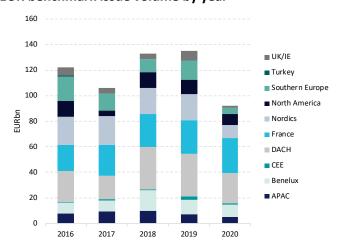
Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	225.1	204	7	0.97	10.1	5.5	1.26
2	DE	151.9	226	12	0.61	8.2	4.7	0.51
3	ES	94.3	75	3	1.15	11.4	3.9	1.90
4	NL	59.0	58	0	0.97	11.1	7.4	0.98
5	CA	56.8	48	0	1.16	5.9	2.9	0.32
6	IT	54.3	62	0	0.85	8.9	4.2	1.59
7	NO	50.5	57	6	0.89	7.1	3.6	0.62
8	GB	41.6	45	0	0.94	8.3	3.1	1.23
9	SE	37.1	42	0	0.88	7.3	3.3	0.56
10	AT	33.0	59	0	0.56	9.4	5.8	0.80

EUR benchmark issue volume by month



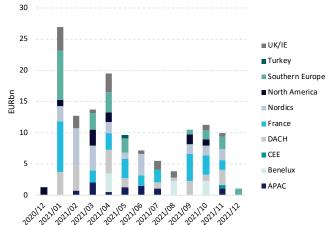
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

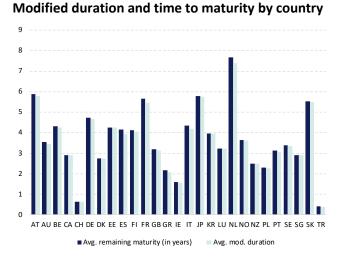
EUR benchmark issue volume by year



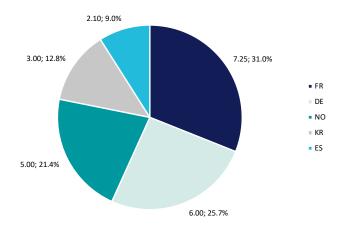


EUR benchmark maturities by month



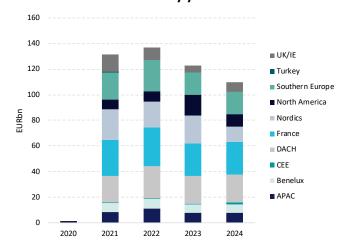


EUR benchmark volume (ESG) by country (in EURbn)

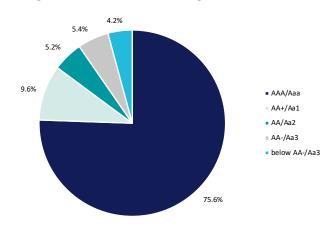


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

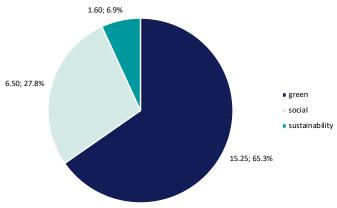
EUR benchmark maturities by year



Rating distribution (volume weighted)

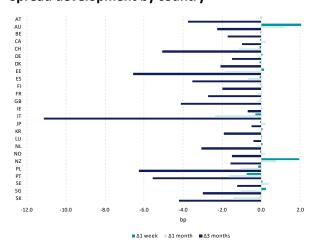


EUR benchmark volume (ESG) by type (in EURbn)

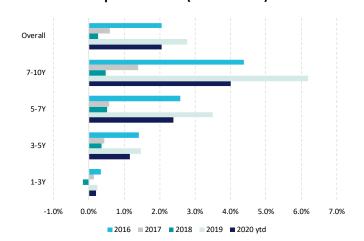




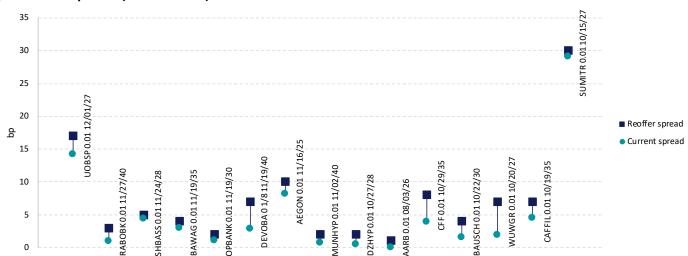




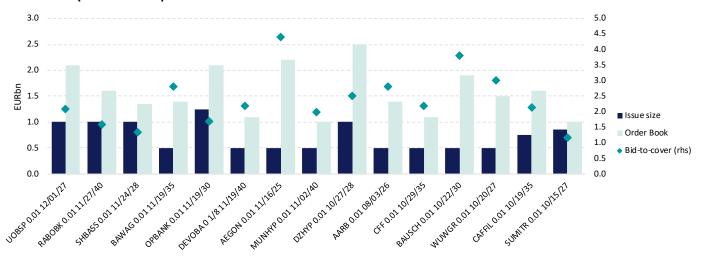
Covered bond performance (Total return)



Spread development (last 15 issues)



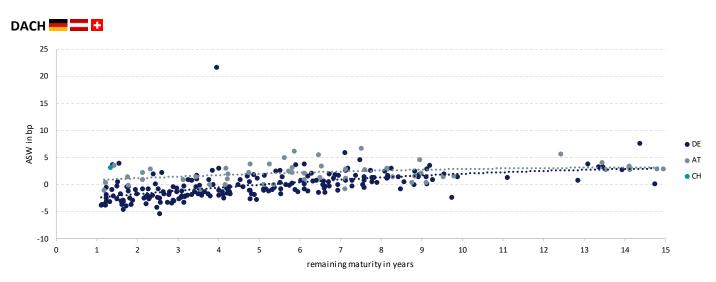
Order books (last 15 issues)

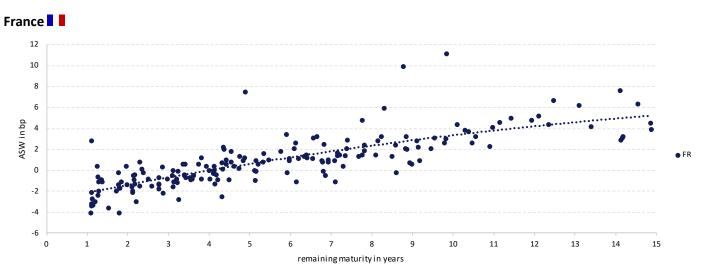


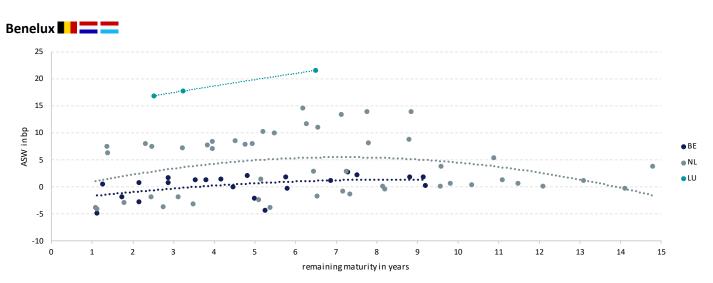
Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



Spread overview¹

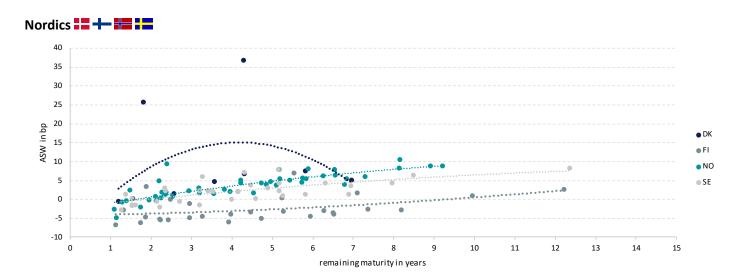


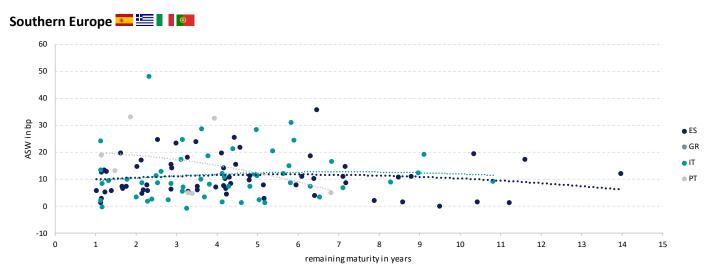


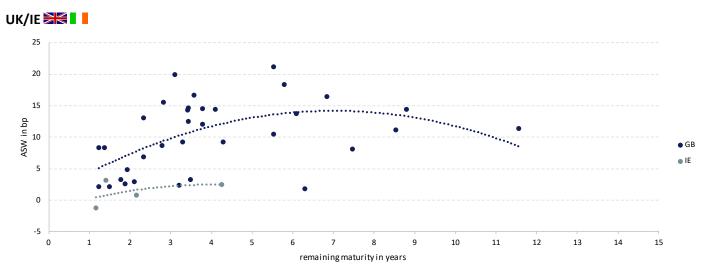


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research 1 Time to maturity $1 \le y \le 15$



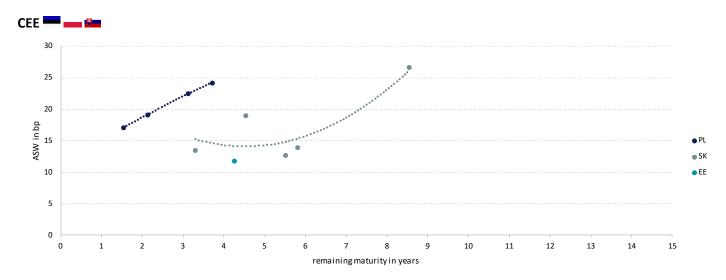


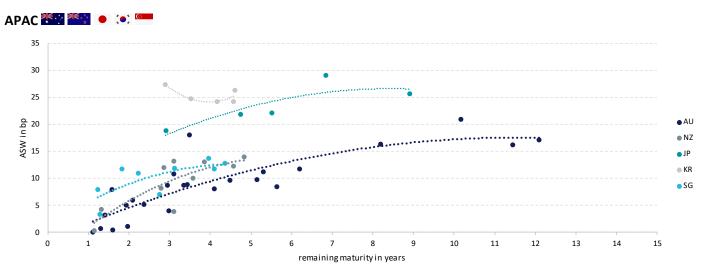


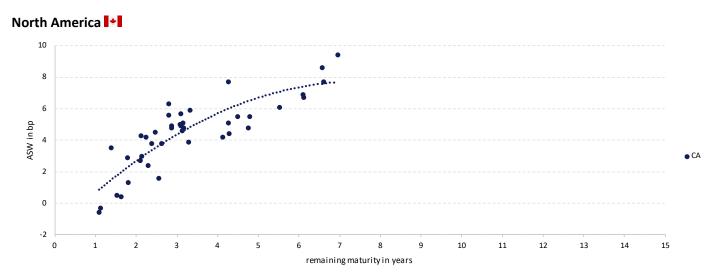


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research







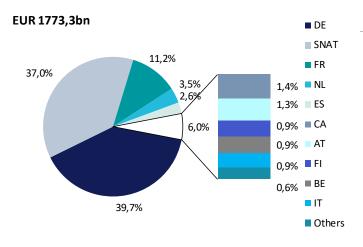


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



Charts & Figures SSA/Public Issuers

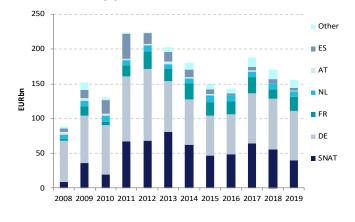
Outstanding volume (bmk)



Top 10 countries (bmk)

Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
DE	704,0	550	1,3	6,3
SNAT	655,9	172	3,8	7,5
FR	197,8	139	1,4	5,3
NL	62,4	64	1,0	6,3
ES	46,1	54	0,9	4,5
CA	25,0	18	1,4	5,7
AT	22,5	24	0,9	5,4
FI	16,4	20	0,8	6,0
BE	16,3	19	0,9	14,3
IT	15,8	20	0,8	6,1

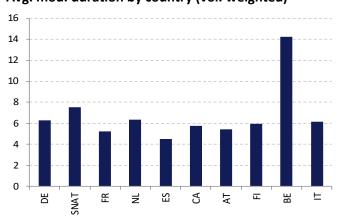
Issue volume by year (bmk)



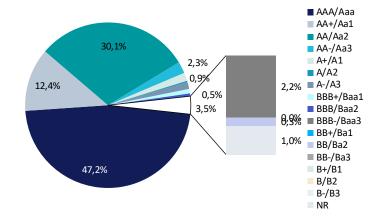
Maturities next 12 months (bmk)



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



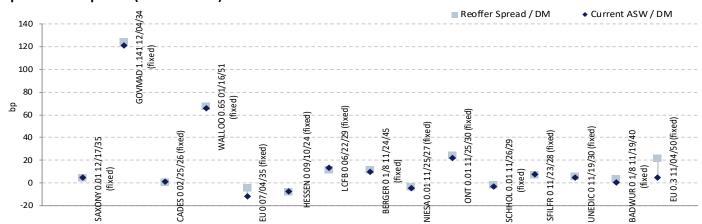
Rating distribution (vol. weighted)



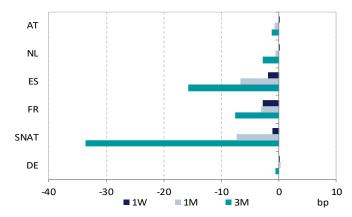
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research



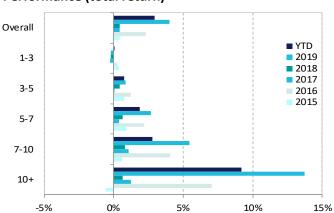
Spread development (last 15 issues)



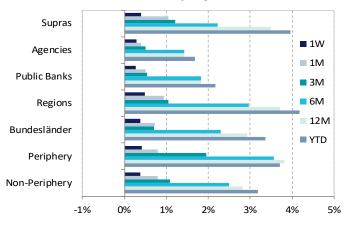
Spread development by country



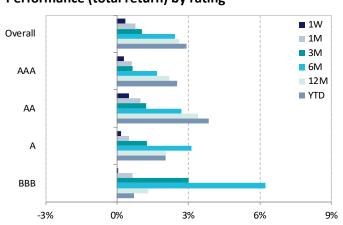
Performance (total return)



Performance (total return) by regions

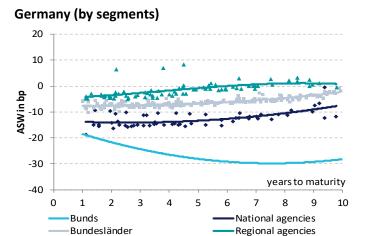


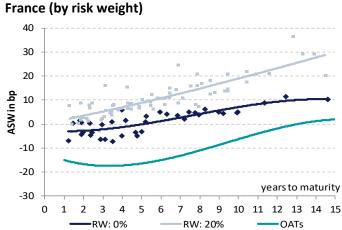
Performance (total return) by rating



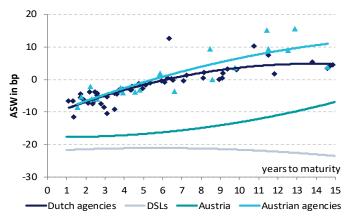
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

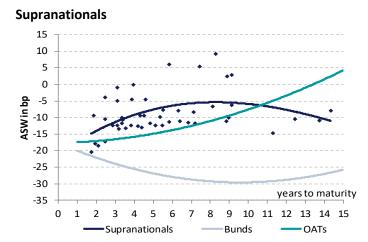




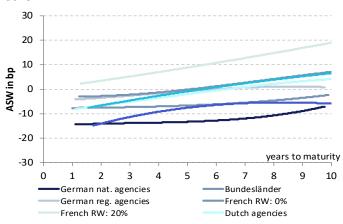


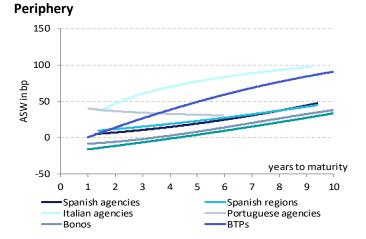
Netherlands & Austria





Core





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



Appendix

Overview of latest Covered Bond & SSA View editions

Publication	Topics
46/2020 ♦ 02 December	■ The ECB ahead of its course-setting meeting for 2021
	Covered Bonds – Outlook 2021: Waiting for the game changer?
	 SSA – Outlook 2021: Coronavirus and ECB dominate public-sector segment
45/2020 ♦ 25 November	 UOB ends the state of hibernation on Singapore's primary market
	■ The covered bond universe of Moody's: an overview
	 Update: Belgium regions as investment alternatives
44/2020 ♦ 18 November	Primary market 2021: real prospect of Hungarian EUR benchmarks?
	■ German Pfandbrief savings banks in Q3 2020
	 Development of the German property market
43/2020 ♦ 11 November	 Newcomer to the benchmark segment: HSBC Bank Canada sets sights on EUR debut
	OP Mortgage Bank: First green covered bond from Finland
	 Transparency requirements §28 PfandBG Q3/2020
42/2020 ♦ 04 November	 Covered Bond Framework and Liquidity Coverage Ratio: European Commission presents draft version of amendments to LCR regulation
	An overview of the Fitch covered bond universe
41/2020 ♦ 28 October	■ ECB: The year of the owl – review and outlook
	Yield developments on the covered bond market
40/2020 ♦ 21 October	 German building societies: EUR benchmark debuts and requirements for investing in soft bullet bonds
	 NPLs in cover pools – lack of unified approach at national level
39/2020 ♦ 14 October	Spain: Issuer consolidation ahead?
	PfandBG to include extendable maturity structures
	The EU has big plans – "SURE" and "Next Generation EU"
38/2020 ♦ 07 October	■ New issuer from Japan – Sumitomo Mitsui Trust Bank places inaugural EUR benchmark bond
	■ PEPP – taking stock six months on
37/2020 ♦ 30 September	Cover pool characteristics – international comparison
36/2020 ♦ 23 September	Bausparkasse Schwäbisch Hall plans inaugural EUR benchmark
	 Update: Auckland Council – Investment alternative in Down Under
35/2020 ♦ 16 September	Moody's covered bond universe: an overview
	Update Down Under: Victoria (TCV)
34/2020 ♦ 26 August	 Covered bonds as central bank-eligible collateral – European Central Bank presents Q2 2020 figures
	■ Update: New South Wales (NSWTC)
33/2020 ♦ 19 August	■ German Pfandbrief savings banks in Q2 2020
	■ ECBC publishes annual statistics for 2019
32/2020 ♦ 12 August	■ Transparency requirements §28 PfandBG in Q2 2020
	Development of the German property market
	European Atomic Energy Community (Euratom)
31/2020 ♦ 05 August	PEPP: Second round of reporting again provides valuable insights
NORD/IR:	NORD/IR: NORD/IR: Bloomberg:

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:

<u>Issuer Guide – Supranationals & Agencies 2019</u>

<u>Issuer Guide – Canadian Provinces & Territories 2020</u>

<u>Issuer Guide – German Bundeslaender 2020</u>

<u>Issuer Guide – Down Under 2019</u>

Fixed Income:

ESG update

Analysis of ESG reporting

ECB launches corona pandemic emergency

ECB responds to corona risks



Appendix Contacts at NORD/LB

Markets Strategy & Floor Research



Michael Schulz Head +49 511 361-5309 +49 172 740 4123 michael.schulz@nordlb.de



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

\mathbf{c}	00
.74	-

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 +49 511 9818-9650

Trading

Covereds/SSA	+49 511 9818-8040
Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/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: 09 December 2020 08:51h (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: 36% Neutral: 50%

Negative: 14%

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: 09.12.2020 15:35