



### Covered Bond & SSA View

NORD/LB Markets Strategy & Floor Research

19 April 2023 ♦ 14/2023 Marketing communication (see disclaimer on the last pages)



### Agenda

Market overview	
Covered Bonds	3
SSA/Public Issuers	5
Lending in the eurozone and Germany	9
The French agency market – an overview	13
Charts & Figures	
Covered Bonds	21
SSA/Public Issuers	27
ECB tracker	
Asset Purchase Programme (APP)	30
Pandemic Emergency Purchase Programme (PEPP)	32
Overview of latest Covered Bond & SSA View editions	33
Publication overview	34
Contacts at NORD/LB	35

### Floor analysts:

Covered Bonds/Banks Dr Frederik Kunze frederik.kunze@nordlb.de Melanie Kiene, CIIA melanie.kiene@nordlb.de Stefan Rahaus stefan.rahaus@nordlb.de SSA/Public Issuers Dr Norman Rudschuck, CIIA norman.rudschuck@nordlb.de Jan-Phillipp Hensing jan-phillipp.hensing@nordlb.de

NORD/LB: Markets Strategy & Floor Research NORD/LB: Covered Bond Research NORD/LB: SSA/Public Issuer Research Bloomberg: RESP NRDR <GO>

### Market overview Covered Bonds

Author: Stefan Rahaus

#### Primary market I: 13 transactions in total, most of which originate in the eurozone again

The dynamic activity on the primary market for covered bonds did not abate even during the shortened trading weeks around the Easter holidays. Although some investors had certainly closed down for an Easter break, in the trading days since the previous edition of our weekly publication a total of 13 publicly placed EUR benchmark deals with a volume of EUR 11.25bn were successfully issued on the market. At the end of March, the majority of issuers appearing on the market were from outside the single currency area. However, 11 of the 13 deals that we are reporting on in this issue came from the eurozone. In addition, two Canadian issuers increased the issuance volume from Canada to EUR 13.00bn (ytd). With the exception of the 5y public Pfandbrief issued by HYPO NOE, all other deals were mortgage-backed. Together with the deal from Raiffeisenlandesbank Niederösterreich and the Erste Group's second market appearance this year, the issuance volume from Austria in 2023 now amounts to EUR 8.30bn. France has also extended its lead at the top of the table in terms of the issuance volume so far this year: with three new covered bonds, the volume of new deals from France now stands at EUR 27.15bn. Moreover, the 7.5y covered bond placed by Crédit Agricole (final issue spread: ms +28bp) was also the deal with the longest term in this week's coverage. Another three deals came from Germany, increasing the Pfandbrief issuance volume to EUR 17.50bn (ytd). Last Thursday, OP Mortgage Bank (NORD/LB Issuer View) from Finland successfully placed its second covered bond this year. Another highlight was the first deal from Portugal since November 2019, with Banco Santander Totta raising EUR 750m for five years at ms +43bp. In our view, the successful placement of a EUR benchmark covered bond from the "Periphery" is a positive sign for pending issues from Italy. The Bank of Italy recently finalised and implemented additional requirements for this. As such, once the programmes have been adjusted, the first Italian issuers can be expected to approach the market as early as the second quarter of 2023.

lssuer	Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
National Bank of Canada	CA	18.04.	XS2615559130	5.0y	1.00bn	ms +35bp	AAA / Aaa / -	-
Muenchener Hypo	DE	17.04.	DE000MHB34J3	6.3y	0.75bn	ms +6bp	- / Aaa / -	-
Crédit Mutuel HL	FR	14.04.	FR001400HCM5	6.0y	1.00bn	ms +26bp	AAA/Aaa/AAA	-
Commerzbank	DE	13.04.	DE000CZ43ZX7	6.0y	1.25bn	ms +10bp	- / Aaa / -	-
OP Mortgage Bank	FI	13.04.	XS2613838296	5.5y	1.00bn	ms +16bp	- / Aaa / -	-
RLB Niederoesterreich	AT	13.04.	XS2613629372	5.3y	0.50bn	ms +33bp	- / Aaa / -	-
HYPO NOE	AT	12.04.	AT0000A33N23	5.0y	0.50bn	ms +26bp	-/Aa1/-	-
Bayerische LB	DE	12.04.	DE000BLB6JV5	6.1y	0.50bn	ms +4bp	- / Aaa / -	-
La Banque Postale HL	FR	12.04.	FR001400HF42	5.8y	1.00bn	ms +22bp	- / - / AAA	-
Banco Santander Totta	PT	12.04.	PTBSPAOM0008	5.0y	0.75bn	ms +43bp	AA- / Aa2 / -	-
CCDJ	CA	11.04.	XS2613159719	5.0y	0.75bn	ms +37bp	AAA / Aaa / -	-
Erste Group Bank	AT	05.04.	AT0000A33MP9	4.5y	1.00bn	ms +20bp	- / Aaa / -	-
Crédit Agricole HL	FR	05.04.	FR001400H9H2	7.5y	1.25bn	ms +28bp	- / Aaa / AAA	-

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

#### Primary market II: new issuance volume for 2023 exceeds EUR 100bn

The total volume of new issuances in EUR benchmark format now stands at EUR 101.60bn split between 104 separate transactions. This means that the total volumes seen in the full years 2020 and 2021 have already been exceeded and the issuance volume is still tracking ahead of the record year 2022, when the EUR 100bn mark was only achieved in May. The simple average of the initial terms to maturity of these new issuances slightly lengthened to 5.4 years in April, as against 4.6 years in March. Since mid-February 2023, however, no covered bond issuer has shown confidence in the maturity segment of 10 years and longer, despite the fact that we assume there is a funding need in this segment. Moreover, no Norwegian issuer has been spotted on the primary market so far this year, despite maturities totalling EUR 10.25bn in this jurisdiction for 2023.

#### Secondary market: so far unmoved by the primary market

Although primary market activities can still be described as very lively, the secondary market is characterised by stability. Spreads on new deals are generally trading marginally tighter versus the issuance spread. On the customer side, we are seeing some sales in exchange for fresh supply. Overall, issuers are continuing to focus on the short to medium term segment, with only isolated transactions taking place at the long end. The new deal from Banco Santander Totta recently benefited from the announcement made by the rating agency Fitch, which stated that the AA- rating for covered bonds from this issuer had been changed to "Rating Watch Positive". The bond is currently trading at ms +40bp / ms +37bp, while the spread at issue came in at ms +43bp.

#### Moody's identifies increasing default risks for loans on German multi-family dwellings

At the beginning of April, the rating agency Moody's took a closer look at the sub-segment of loans for multi-family dwellings in view of the risks in connection with commercial property financing in Germany. In the German Pfandbrief sector, commitments in relation to loans secured by way of multi-family dwellings tend to account for 20% to 30% of the cover pool. Even when this concerns residential real estate, this sub-category is assigned to commercial real estate financing (CRE). Due to the low return on borrowed capital compared with other commercial financing, the rating experts at Moody's see investments in multi-family dwellings as being highly sensitive to risks resulting from interest rate hikes and inflation-related price rises. On the income side, strict rent controls restrict the ability of landlords to pass on rising costs to tenants. With property prices simultaneously on the slide, Moody's has identified an increased likelihood that rising costs associated with debt servicing (due to higher interest rates and tighter lending standards) and increasing utility costs could potentially exceed rental income. However, the specialists at Moody's expect that the high demand for rental accommodation, coupled with a simultaneous decline in construction activity, will support the recoverability rates in the event that there are defaults on multi-family dwelling loans. With regard to the aforementioned risks, Moody's sees numerous protective mechanisms for Pfandbrief programmes. In this context, it refers to the "dual recourse principle" and conservative loan-to-value approach (not market value) of 60% in Germany. Many loans that were granted some time ago have built up equity buffers through repayments and appreciation in value. In addition, the collateral in the cover pools is adjusted or increased, often without any legal obligation. We concur with the rating agency's assessment and do not currently see any fundamental dangers to the cover pools underlying German Pfandbriefe.

# Market overview SSA/Public Issuers

Authors: Dr Norman Rudschuck, CIIA // Valentin Jansen

#### Draft Environmental Delegated Act – the next big step in the EU Taxonomy?

According to the European Commission, the first delegated act (Climate Delegated Act), which focused on the first two environmental objectives in the EU Taxonomy (I. Climate Change Mitigation and II. Adaptation), already addressed around 40% of business enterprises in Europe which together represent over 80% of direct greenhouse gas emissions. Now, the draft Environmental Delegated Act published at the start of April is set to extend the scope of the regulation to the other four environmental objectives. Based on the final report published by the specially established group of experts in March 2022, Technical Screening Criteria (TSC) will be specified regarding the environmental impact of economic activities in areas including manufacturing, water supply, waste water disposal, housing construction and renovation. The documents accompanying the draft, which deal with economic activities per environmental objective, should be read as follows: I. Description of activity incl. NACE code, II. Technical Screening Criteria and III. Assessment of the minimum requirements (e.g., Do No Significant Harm, DNSH). Most of the recently addressed economic activities come under environmental objective IV. of the EU Taxonomy (transition to a circular economy). The European Commission has also published amendments to the Climate Delegated Act (in force since 1 January 2022), which relate to the TSC for the activities pertaining to environmental objectives I. and II. As usual, the draft will be evaluated in the context of a public consultation phase which ends on 3 May 2023. Based on the feedback, the European Parliament and European Council will then pass a resolution on the final version after which the Environmental Delegated Act (according to the draft) is set to come into force at the start of 2024. A more detailed overview of the EU Taxonomy and the global market for ESG bonds can be found in our NORD/LB Fixed Income Special – ESG Update 2022, which we plan to update during the course of the first half of 2023.

#### **Overview of EU Taxonomy milestones**

Milestone	Main focus	In force since
Taxonomy Regulation	Basis for EU Taxonomy: establishes six environmental objectives and sets out conditions for qualifying as making a significant contribution	12 July 2020
Climate Delegated Act	Specifies technical screening criteria and minimum requirements for the first two environmental objectives in the Taxonomy Regulation	01 Jan. 2022
Disclosures Delegated Act	Establishes specific content and structures for quali- tative and quantitative information pertaining to EU Taxonomy related reporting	01 Jan. 2022
Complementary Climate Delegated Act	Complementary delegated act on inclusion of (transi- tional) activities in the fields of nuclear and gas ener- gy under strict conditions	01 Jan. 2023
(Draft) Environmental Delegated Act	Specifies technical screening criteria and minimum requirements for the remaining four environmental objectives in the Taxonomy Regulation	01 Jan. 2024 (provisional)

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

#### KfW: 2022 promotional volume outstrips previous record in coronavirus year 2020

Against the backdrop of an uncertain geopolitical and economic environment, the promotional bank KfW (ticker: KFW) granted a new record volume of promotional funds in financial year 2022. With a rise of +56% Y/Y, new business rose from EUR 107.0bn in 2021 to EUR 166.9bn in the last financial year. By way of comparison, the previous highest figure for new business of EUR 135.3bn was reached in 2020 in the wake of the impact of the Covid-19 crisis. "The figures for KfW reflect the major challenges currently facing Germany and Europe," explained CEO Stefan Wintels. The reason for the significant rise in promotional business was the large volume of mandated transactions amounting to EUR 58.3bn in connection with ensuring Germany's energy supply and easing the burden on households and businesses. Domestic promotional business accordingly recorded a striking result with a volume of EUR 136.1bn (2021: EUR 82.9bn). The Export and Project Finance business sector also reported a significant increase with new commitments of EUR 18.1bn (2021: EUR 13.6bn). "2022 was a year of major challenges in which KfW strongly demonstrated its ability to deliver to the Federal Government. In order to be able to continue fulfilling its task as a transformation and promotional bank successfully in the future, it will also develop itself as an organisation" stressed Wintels, referring to the KfWplus strategic agenda. As part of this strategic orientation, KfW financing will be more closely aligned with the Paris climate goals through the "transForm" project. In addition, in future the actual economic, environmental and social impacts of KfW's promotional business will be measured more intensively and summarised in a KfW-wide "impact score".

#### CDC updates its comprehensive Framework for Green, Social and Sustainability Bonds

Caisse des Dépôts et Consignations (CDC, Ticker: CDCEPS) updated its Framework for Green, Social and Sustainability Bonds in mid-February. In the context of its public mandate to finance regional development and strategic corporate holdings (such as Société de Financement [SFIL] and La Poste Groupe), in future the promotional institution intends to align its activities in all divisions more closely with the relevant Sustainable Development Goals. Consequently, new business will focus increasingly on businesses and projects that contribute to decarbonising the French economy. This applies in particular to the strategically important property and industrial sector. Together with La Banque Postale and SFIL, it has set a target of granting funds totalling EUR 60bn for sustainable financing between 2020 and 2024. In order to be able to raise the corresponding funding, the Green, Social and Sustainability Bond Framework was structured in compliance with the EU Taxonomy and the internationally established ICMA Principles and Guidelines. The issuance proceeds flow into the property sector in the form of energy-saving renovations and energy-efficient new builds, into the energy sector in the storage of renewable energy and into the transport sector via sustainable mobility. As of the reporting date of 12 April, under the ticker CDCEPS (in the EUR benchmark segment) an ESG volume of EUR 2.0bn across four bonds (EUR 500m each) was reported. In terms of the total outstanding volume (EUR 19.1bn) this equates to a share of 10.5%. The funding target for 2023 is EUR 4.0bn, while maturities stand at EUR 1.7bn (equates to net supply of EUR 2.3bn). So far this year, CDC has not appeared on the primary market in the EUR benchmark segment we cover.

#### MuniFin: slight drop in new business in 2022; funding remains stable

Municipality Finance (MuniFin, ticker: KUNTA) continued to provide cost-effective funding to local authorities and public sector housing companies in Finland in the past financial year. New business in long-term loans recorded a slight downturn versus the previous year (-0.2%). This is due primarily to lower-than-expected demand for financing in the municipal sector as municipalities generated increased revenue as a result of a series of exceptional effects (e.g. ongoing state coronavirus aid packages). Ahead of the planned reform to transfer responsibility for social welfare, healthcare and rescue services to the "Wellbeing Services Counties" (districts) in 2023, many municipalities also sold off their health and social facilities before the new rules came into force. In the promotional segment for public sector housing companies, many building projects were halted in the past year due to material shortages and higher build costs. However, despite the volatile markets and geopolitical uncertainty, the refinancing side of MuniFin remained comparatively stable. In a total of 180 deals, the Finnish municipal financier raised the equivalent of EUR 8.8bn leading to a total outstanding volume of EUR 40.2bn at the end of 2022. The regional breakdown shows that 48% of new issues in 2022 went to EU countries (excluding Nordics), followed by Nordics (24%) and the Asia-Pacific region at 8% and America at 7%. In terms of currency diversification, alongside EUR, other currencies utilised included NOK, GBP and USD, with 48.5% of the new issuance volume denominated in EUR. In the ESG segment, an integral part of the bank's funding strategy, MuniFin issued a 5-year EUR-benchmark (EUR 1.0bn) in green bond format. With an oversubscription ratio of 2.0x, this was the issuer's eighth green bond deal and also its largest to date.

#### Bremen adopts resolution for over EUR 400m in additional climate protection measures

Last Tuesday, the Senate of the State of Bremen adopted a resolution relating to over EUR 400m for further measures in the climate protection package. The projects from the "fast lanes" (key action points) in the climate protection strategy 2038 were resolved in the 2023 supplementary budget and comprise improvements to the public transport network, energy-saving renovations to public buildings as well as decarbonisation and climateneutral transformation of the economy. The Senate is thereby further paving the way for climate neutrality in 2038. The underlying climate protection strategy was adopted in November last year. Against the backdrop of the climate and energy price crisis associated with Russia's war of aggression in Ukraine, the Senate identified particularly effective and urgent action points pertaining to  $CO_2$  reduction potential and energy supply security. The following areas are therefore being prioritised and progressed: I. Expansion of decarbonisation of district and local heating supply and introduction of a federal state heating law, II. Massive improvement of low CO<sub>2</sub> mobility offerings, III. Energy-saving renovation of public building stock IV. Decarbonisation and climate-neutral transformation of the economy (especially steel production, energy generation and infrastructure). For the period 2023 to 2027 Bremen's Senate is making EUR 2.5bn available for these concrete measures. There is EUR 0.5bn available for mitigation of the consequences of the war in Ukraine. A total of EUR 8.0bn will be needed up until 2038. According to Finance Senator Dietmar Strehl, the State of Bremen will continue to invest in climate protection over the next five years as well.

#### Primary market

We are now back after our (hopefully) well-earned Easter break and can review the bond issues that took place in our absence. First up is IFB Hamburg (ticker: IFBHH), which was mentioned by us two weeks ago when the mandate was announced. The Hamburg bank placed a 10y deal in the sub-benchmark segment (EUR 250m). The final pricing was unchanged on the guidance of ms +5bp. Another mandated deal we had already mentioned was from the World Bank (ticker: IBRD), which approached investors with a 5y sustainable development bond (EUR 2.0bn). During the marketing phase, the deal tightened by one basis point versus guidance to ms +25bp. Two Dutch issuers in our coverage were also active. The first, Bank Nederlandse Gemeenten (ticker: BNG), went to the market with a 7y bond (EUR 1.5bn). With a guidance price of ms +8bp area, the deal was ultimately priced two basis points tighter. The second, Nederlandse Waterschapsbank (NWB, ticker: NEDWBK), offered investors a green bond (specifically a "water bond"; EUR 1.5bn; 10y term). Final pricing was two basis points tighter than the guidance at ms +11bp. Out of the supras, RfPs were sent out by the EFSF and the EU to the relevant bank groups. On Monday, the EU carried out two bond auctions in line with its funding plan which is published every six months: a further EUR 1.8bn flowed into EU 1.6% 04/12/2029, raising the outstanding volume to EUR 14.8bn. The second tap with a volume of EUR 1.7bn related to EU 2.8% 04/02/2033, lifting its outstanding volume to EUR 7.7bn. EFSF, on the other hand, placed a 5y EUR benchmark with a volume of EUR 4.0bn. The initial guidance of ms -5bp was revised to ms -6bp area, with final pricing closed at ms -7bp. Staying in the supra segment, Eurofima (ticker: EUROF) issued a tap (green), increasing EUROF 0.15% 10/10/2034 by EUR 113m at ms +25bp. In the German promotional bank segment, KfW (ticker: KFW) issued a 10y EUR benchmark with a volume of EUR 3.0bn at ms -7bp (tightening of 1bp versus guidance). From Spain ADIF-AV (ticker: ADIFAL) was active in the market placing a EUR 500m bond in green bond format at SPGB +45bp (guidance: SPGB +50bp). Mandates were also issued for a 7y EUR benchmark bond and a 20y EUR benchmark bond from MuniFin (ticker: KUNTA) and KommuneKredit (ticker: KOMMUN) respectively. Under the joint ticker LANDER, the State of Bremen, Hamburg, Mecklenburg-Western Pomerania, Rhineland-Palatinate, Saarland and Schleswig-Holstein were also seeking a consortium for a jumbo Laender bond with a volume of EUR 1.0bn (7y maturity).

,				· · · ·			
Country	Timing	ISIN	Maturity	Size	Spread	Rating	ESG
DE	17.04.	DE000A30V9M4	10.1y	3.00bn	ms -7bp	- / Aaa / AAA	-
ES	17.04.	ES0200002089	10.0y	0.50bn	ms +82bp	A- / Baa2 / -	Х
SNAT	17.04.	EU000A2SCAH1	5.7y	4.00bn	ms -7bp	AA / Aaa / AA	-
NL	12.04.	XS2613821300	10.0y	1.50bn	ms +11bp	- / Aaa / AAA	Х
NL	11.04.	XS2613259774	7.0y	1.50bn	ms +6bp	AAA / Aaa / AAA	-
SNAT	04.04.	XS2611177382	15.0y	2.00bn	ms +25bp	- / Aaa / AAA	Х
	DE ES SNAT NL NL	DE         17.04.           ES         17.04.           SNAT         17.04.           NL         12.04.           NL         11.04.	DE         17.04.         DE000A30V9M4           ES         17.04.         ES0200002089           SNAT         17.04.         EU000A2SCAH1           NL         12.04.         XS2613821300           NL         11.04.         XS2613259774	DE         17.04.         DE000A30V9M4         10.1y           ES         17.04.         ES020002089         10.0y           SNAT         17.04.         EU000A2SCAH1         5.7y           NL         12.04.         XS2613821300         10.0y           NL         11.04.         XS2613259774         7.0y	DE         17.04.         DE000A30V9M4         10.1y         3.00bn           ES         17.04.         ES020002089         10.0y         0.50bn           SNAT         17.04.         EU000A2SCAH1         5.7y         4.00bn           NL         12.04.         XS2613821300         10.0y         1.50bn           NL         11.04.         XS2613259774         7.0y         1.50bn	DE         17.04.         DE000A30V9M4         10.1y         3.00bn         ms -7bp           ES         17.04.         ES0200002089         10.0y         0.50bn         ms +82bp           SNAT         17.04.         EU000A2SCAH1         5.7y         4.00bn         ms -7bp           NL         12.04.         XS2613821300         10.0y         1.50bn         ms +11bp           NL         11.04.         XS2613259774         7.0y         1.50bn         ms +6bp	DE         17.04.         DE000A30V9M4         10.1y         3.00bn         ms -7bp         - / Aaa / AAA           ES         17.04.         ES0200002089         10.0y         0.50bn         ms +82bp         A- / Baa2 / -           SNAT         17.04.         EU000A2SCAH1         5.7y         4.00bn         ms -7bp         AA / Aaa / AA           NL         12.04.         XS2613821300         10.0y         1.50bn         ms +11bp         - / Aaa / AAA           NL         11.04.         XS2613259774         7.0y         1.50bn         ms +6bp         AAA / Aaa / AAA

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

16% 14%

12%

10%

8% 6%

4%

2%

0%

-2%

-4%

-6%

# Covered Bonds Lending in the eurozone and Germany

Author: Stefan Rahaus

#### Does the tightening of lending standards result in a credit crunch?

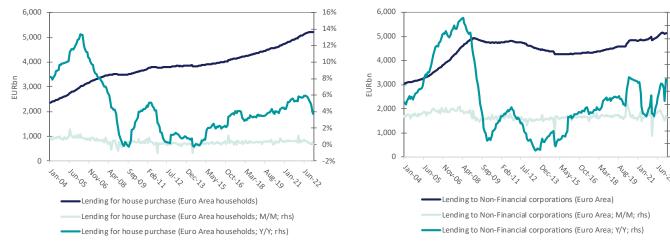
Current developments at regional banks in the USA as well as the acquisition of Credit Suisse by UBS have given rise to discussions in the market about a further tightening of lending standards and a potential credit crunch. In this context, we are taking a look at the latest developments in terms of lending within the eurozone and in Germany.

#### Total loans outstanding close to record level

According to official ECB information, total property loans extended as well as corporate loans in the non-financial sector are reaching a level close to the previous all-time high for the eurozone. At EUR 5,225.6bn as at the end of February 2023, a marginal decline occurred in existing loans for buying residential property compared with the previous all-time high of EUR 5,226.8bn recorded in January 2023. A similar picture was also evident for existing corporate loans extended by eurozone banks (EUR 5,131.3bn as at the end of February 2023 following the all-time high of EUR 5,154.2bn recorded at the end of October 2022).



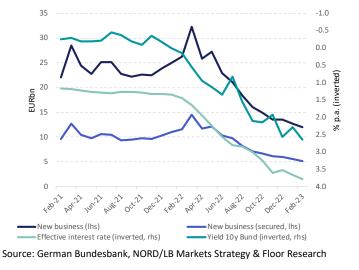
#### Lending to Non-Financial corporations (Euro Area)



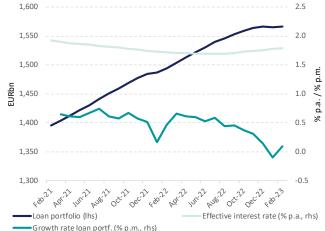
Source: ECB, NORD/LB Markets Strategy & Floor Research

### Varying trend in growth rates versus the previous year

However, a marked downward trend in growth rates on the previous year has emerged since mid-2022 in terms of loans for buying residential property. Compared with the previous month, the level for February 2023 was in negative territory, for the first time since March 2020. With regard to corporate loans, the year-on-year growth rate of 5.5% in February 2023 was fluctuating close to the multi-year high of 6.2% year on year recorded in May 2020. During the financial crisis of 2008/09, there was a time lag between the downward trend in growth rates for residential property loans and that for corporate loans. Compared with the previous year, the rate of expansion in terms of property loans had decreased to less than 10% as early as January 2007, whereas this only transpired for corporate loans in January 2009.



### New business – unsecured home loans at German banks (all terms)/of which collateralised



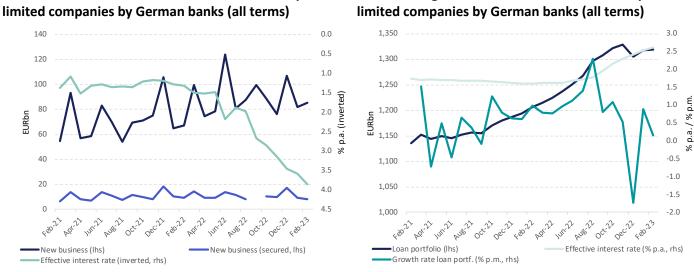
#### Total existing home loans at German banks (all terms)

#### New business volume of German banks down in terms of residential property loans

Using Germany as an example, we would like to carry out a more in-depth analysis of some developments in the property market. According to German Bundesbank data, new business in residential property loans also declined significantly in Germany. At the same time, total existing loans are close to the all-time high. The new business volume fell from EUR 22.2bn in February 2021 to EUR 12.1bn in February 2023. The rate of reduction was almost the same for new business relating to unsecured and that relating to collateralised home loans. This means that around 43% of total loan commitments continue to be collateralised (Feb. 2023: EUR 5.1bn). In our view, the downturn in demand was primarily caused by higher interest rates, while construction costs and property prices were also high. Total loans in the segment of residential property have remained at a high level, with the growth rate on the previous month only going into negative territory in January 2023 at -0.1% year on year. Further interest rate and property price developments are likely to be the key elements determining the future trend.

# New business with non-financial public limited companies unaffected by the interest rate increase

The response to the interest rate increase in terms of new business at German banks involving loans to non-financial public limited companies seems to have been more rigid, with a volume of EUR 85.5bn recorded in February 2023 (chart below left). No significant decrease in new business is currently evident in the sub-segment of collateralised loans. The volume has seen a sideways movement since February 2021, ranging from EUR 6.6bn (Feb. 2021) to EUR 18.5bn (Dec. 2021). In February 2023, the volume of collateralised new loan approvals to non-financial companies amounted to EUR 8.4bn. At EUR 1,319.5bn as at the end of February 2023, the loan portfolio was approaching the all-time high of EUR 1,328.7bn recorded at the end of November 2022. The effective interest rate of the portfolio has moved into line with rising interest rates considerably faster than for residential property loans. This is probably attributable to the shorter average term of corporate loans. In our opinion, the further development will depend on the economic trend rather than the direction of interest rates. If the economy unexpectedly slides into a recession, we assume a considerable decrease in new business with non-financial public limited companies.



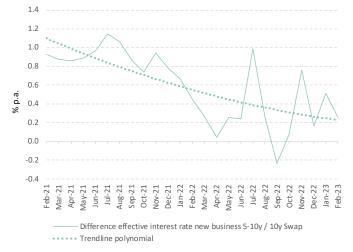
### New business – loans extended to non-financial public limited companies by German banks (all terms)

Source: German Bundesbank - New business (secured): no data available for September 2022; NORD/LB Markets Strategy & Floor Research

No widening of interest margins on residential property loans despite higher interest

With regard to funding and therefore profitability, we have looked more closely at the difference between the effective interest rate (EIR) of new loan commitments of collateralised residential property loans at German banks (with an initial term of five to ten years) and the 10y swap rate (as a funding benchmark; other terms tend to produce the same result). In times of rising interest rates, banks are generally expected to increase their interest margins, i.e., the expectation is that the difference between the loan interest and a funding benchmark will widen. However, the chart below left illustrates (dotted trend line) that for residential property loans in the five to ten-year maturity segment, the difference – according to the interest rate statistics of the German Bundesbank – has tightened considerably. We see fierce competition in the German banking market as a possible cause. Any potential countering of this would add to the cost of property loans. In view of the competitive situation, it is conceivable that low-margin business segments will be scaled back. Both are likely to have an adverse effect on the new business volume in future.

#### Difference new business 5-10y EIR/10y swap rate



#### Difference new business > 10y EIR unsec./secured

Total existing loans extended to non-financial public



Source: German Bundesbank, NORD/LB Markets Strategy & Floor Research

### Difference in the effective interest rates between unsecured and secured new business on the rise

Based on German Bundesbank data, the gap in the effective interest rates of unsecured and collateralised residential property loans with an initial term of more than ten years has increased in the past two years (chart above right). In our view, tighter lending standards are likely to be responsible for this trend. At European level, this is also reflected in the ECB's Bank Lending Survey.

#### ECB's Bank Lending Survey (BLS) reflects further tightening of lending standards

The data on lending by European banks, which is published quarterly by the ECB, was last made available in January 2023 for the fourth quarter of 2022. The survey of 151 banks highlights marked tightening of lending standards on the previous quarters – both with regard to lending to companies and private individuals (property and consumer loans). At the same time, demand for loans and credit lines was also significantly down, according to the data. In view of the latest turmoil in the banking sector (US regional banks and Credit Suisse), it is to be expected that the next BLS publication, which is scheduled for 2 May 2023, will indicate further tightening in terms of lending standards.

#### **Conclusion and outlook**

At European and German level, total existing loans for buying residential property and to companies are close to the previous all-time highs. The level of new business in terms of business loans in Germany as well as the percentage growth in total loans on the previous year at European level are relatively rigid at present in relation to interest rate increases. Accordingly, there currently is no sign of a credit crunch. The high volume of existing loans implies that the funding requirement of banks will remain high in the coming months. This would suggest that the dynamic trend in issuing activities is also set to continue in the primary market for covered bonds. Conversely, a marked downward trend is already evident in terms of the new business volume and growth rate on the previous year in the property loan segment. If this trend continues in the future, the volume of total mortgage lending would also shrink as a result. While further interest rate and property price developments are decisive in this regard, lending to companies depends far more on the future economic trend. If the economy slides into a recession, total loans and consequently the funding requirement in this segment would also decrease. In the wake of the financial crisis of 2007/08, the marked slowing down of the annual growth rate in loans for buying residential property preceded that in corporate lending by two years. A potential trend reversal in terms of lower margins is likely to tend to impact adversely on lending in the same way as tighter lending standards, the effect of which is already reflected by the increase in the cost of unsecured loans and the findings of the ECB's Bank Lending Survey. Following recent developments in the banking market, the publication of the next BLS at the beginning of May 2023 will be of great importance. In our view, there is a possibility that the loan portfolios of German as well as European banks could decline in future after years of growth. This would also reduce the funding requirement of banks, although we do not consider this to be a possible scenario before next year. For 2023, we recently (issue 13/2023) revised our supply forecast for covered bonds slightly upwards to EUR 193.5bn.

### SSA/Public Issuers The French agency market – an overview

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

#### French agency market characterised by institutions with a diverse range of activities

The French agency market is the second-largest of its kind in Europe. The aggregated outstanding total volume of the ten institutions covered in this Issuer Guide amounts to the equivalent of around EUR 360bn. In part, there are huge differences between the market players active in France. The market is dominated, in particular, by institutions closely associated with the French social security system (Caisse d'Amortissement de la Dette Sociale [CADES] and Unédic). Financial institutions such as Caisse des Dépôts et Consignations (CDC) and Bpifrance are also important market players. Another benchmark issuer joined the French agency market over the course of 2015: Agence France Locale (AFL). Its focus is on the provision of financing to French regional governments and local authorities (RGLAs). In 2016, Société de Financement Local (SFIL) was added to our coverage, before the regular green benchmark issuer Société du Grand Paris (SGP) was included in 2018.

French agencies – an overview	
-------------------------------	--

Institution	Туре	Owner(s)	Guarantee	Risk weight
Caisse d'Amortisation de la Dette Sociale (CADES)	Deficit and debt amortisation fund	100% France	EP status	0%
Agence Française de Développement (AFD)	Promotional deve- lopment bank	100% France	EP status	20%
Unédic	Institution of the social security system	50% employer associations, 50% trade unions	Explicit guarantee of the EMTN programme	0%
Caisse des Dépôts et Consignations (CDC)	Other financial institute	100% France	ES status	0%
Bpifrance	Promotional bank	49.2% EPIC Bpifrance [Owner: 100% France], 49.2% Caisse des Dépôts et Consignations [Owner: 100% France], 1.4% private banks, 0.2% Bpifrance	Explicit guarantee for the EMTN programme (through EPIC BPI-Groupe)	20%
Société anonyme de gestion de stocks de sécurité (SAGESS)	Administrator of strategic oil reserves	46% refineries and European distribution companies, 37% hypermarkets, 17% independents	-	20%
Agence France Locale (AFL)	Municipal bank	99,9999% Agence France Locale – Société Territoriale (AFL – ST) 0.0001% Lyon metropolitan area	Explicit guarantee (through AFL – ST) and limited joint and several guarantee (through members of AFL – ST)	20%
Société de Financement Local (SFIL)	Municipal and export financier	99.99% Caisse des Dépôts, 0.01% French state	Maintenance obligation	20%
Société du Grand Paris (SGP)	Infrastructure operator	100% France	EP status	20%
Caisse Centrale du Crédit Immobilier de France (3CIF)	Winding-up agency	99.99% (CIFD), 0.01% six natural persons	Explicit guarantee	0%

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

#### Various legal forms and liability mechanisms

The French agencies covered in this Issuer Guide feature five different legal forms in total: Société Anonyme (S.A.), Association loi de 1901 (association), Établissement public à caractère industriel et commercial (EPIC), Établissement public à caractère administratif (EPA) and Établissement spécial (ES).

#### Société Anonyme (S.A.)

The legal form S.A. is equivalent to a public limited company. Key principles such as shareholders' liability up to the amount of their shareholding are similar to corresponding laws in other European countries.

#### Association loi de 1901 (association)

The legal form of an Association loi de 1901 is based on the French law from 1 July 1901, which created the legal framework for French not-for-profit organisations and associations. Unédic is the only French agency included in this Issuer Guide to operate under this legal form. Its remit is in the area of public service.

#### Établissement public à caractère administratif (EPA)

An EPA operates as an institution established under public law in the context of service and administrative activities. It has a certain degree of administrative and financial autonomy in order to fulfil tasks in the public interest that are of a non-commercial nature. They are generally financed in full by public funds. In the case of agencies with this legal status, Banque de France allows a risk weighting based on the standard approach of Basel III/CRR of 0%, provided that they are treated as ODAC (Organisme divers d'administration centrale) with an administrative nature. In terms of national accounting processes, ODAC are recorded as "other state agencies" and perform specialised functions at national level. They are managed and usually also financed by the state.

### Établissement public à caractère industriel et commercial (EPIC)

EPICs operate in the form of institutions established under public law. Their mission is to provide services of an industrial or commercial nature that cannot be provided by a private company subject to competition. The usual sources of revenue for EPICs are turnover and user fees. EPICs are permitted to generate profits.

#### Établissement spécial (ES)

The legal form of ES is unique to France. Only CDC operates in the form of an ES. The rules that govern an Établissement public (EP) also apply to the legal form ES, covering regulations in connection with liability, among other aspects.

#### Strong state control of EP

By definition, all EP are influenced to a high degree by the institution that established them, i.e. the state in the case of the agencies included in this guide. The EP's sponsor has the option, for example, to block or authorise business decisions. This influence on the day-today operations of an EP is limited, and it is also not possible to appoint a member of government as a director, for example. It is likewise not possible to transfer any expenditure to an EP that is unrelated to its specific remit. Moreover, some EPs (CADES, AP-HP, Bpifrance and Unédic) are classified as part of the central government for the purpose of national accounting. For example, the debt level of these agencies counts towards the liabilities of the French central government.

#### Implicit liability from EP status

All EPs benefit from an implicit guarantee from the French state. Law No. 80-539 of 16 July 1980 stipulates that the French state is ultimately liable for the liabilities of EPs. In the event of an EP being liquidated, which can only be done by the sponsor, its assets and liabilities would be transferred to the sponsor (the state in the case of the EPs discussed here) or another public institution. Examples of this include Agence de l'Informatique in 1988, Charbonnages de France in 2007 and Entreprise de Recherches et d'Activités Pétrolières in 2010. In these cases, liquidation involved transferring liabilities to the state.

#### Strong liquidity support through EP status

In addition to the implied ultimate liability assumed by the French state, there are also several options that EPs can use to meet their liquidity requirements. Apart from relatively small government subsidies, the amount of which is limited by the budget legislation, the Caisse de la Dette Publique (CDP) is authorised to acquire commercial paper (CP) from EPs. As part of the French treasury, CDP's mandate is to safeguard France's creditworthiness. In this respect it is assumed that payment difficulties on the part of an EP would have a negative effect on the state. Agence France Trésor (AFT) is also authorised to buy CP issued by French EPA, which represents an additional level of liquidity protection.

#### The case of La Poste and the lost EP status

Up to 2010, La Poste, the French postal service, operated as an Établissement public à caractère industriel et commercial (EPIC). In response to its increasingly competitionorientated activities, the European Commission initiated proceedings regarding French state aid to La Poste. The result of this was a change in legal form to an S.A. in 2010. Consequently, La Poste has not benefited from an implicit state guarantee since 2010, which also led to the loss of the implicit liability for bonds issued by La Poste. Grandfathering rules therefore do not apply. This means that investors are exposed to a credit risk if the legal form changes (e.g., in the case of privatisations, but also due to actions of a voluntary nature – see former AFD case), which should be taken into account at the long end in particular.

#### Exceptions – Unédic and 3CIF: Explicit bond guarantees

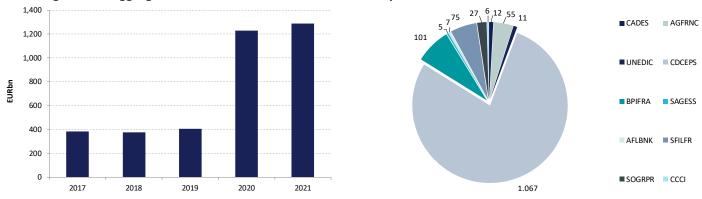
Bonds issues by Unédic and 3CIF are the only bonds issued by French agencies to currently feature an explicit guarantee provided by the state. France guaranteed the last funding programme launched by Unédic, which neither has the state as its owner nor operates as an EP. The respective issuance programmes must be differentiated according to their state guarantees. While the pre-existing EMTN programme benefits from an explicit state guarantee, this is not the case for the NEW MTN.

#### The AFL exception: explicit guarantee and limited joint and several guarantee

Another exception is the guarantee structure of AFL, which basically has two lines of liability: firstly, investors have an explicit guarantee-based claim against the owner of AFL, namely AFL - ST. Secondly, there is an explicit guarantee through the members of AFL - ST (French sub-sovereigns), which ultimately amounts to a joint and several guarantee: each shareholder guarantees AFL liabilities. If a liability event occurs, the creditors may demand performance or satisfaction of the claim, from the entirety of the guarantors, even if they address only one guarantor. The guarantors are obliged to service the overall claim should one of the guarantors be unable to make the necessary payment. In the case of AFL, the factor that differs from these usual characteristics of a joint and several guarantee is the limitation on the amount of liability: the maximum liability for members of AFL in this line of guarantee is the amount of their liability towards AFL (loans including accrued interest). If the liabilities of AFL members amount, for example, to 90% of outstanding AFL bonds, there is no explicit direct guarantee by AFL members for the remaining 10%. The second line of liability, the explicit guarantee from AFL – ST, does cover this residual amount. In parallel with this, AFL – ST has a direct guarantee-based claim against its members. Unlike the first line of liability, however, this line is unlimited.

#### Varying risk weighting under CRR/Basel III

It must be noted that the risk weighting differs according to each issuer because of the differences in the liability and guarantee framework of French agencies. Banque de France provides a <u>list</u> of the institutions for which it is possible to apply a risk weighting of 0%. Conversely, we also derive all other risk weights on this basis, which therefore amount to 20% for the other agencies (please refer to table above).

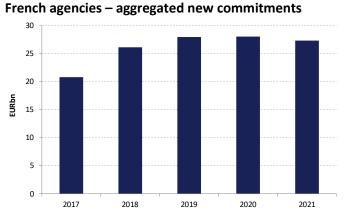


#### French agencies – aggregated balance sheet totals\*

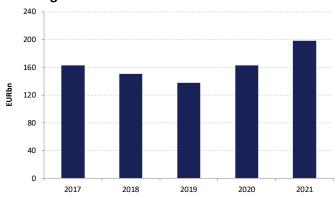
\* SFIL excluded since 2020 due to consolidated balance sheet with CDC. Source: Issuers, NORD/LB Markets Strategy & Floor Research

Increase in aggregated balance sheet totals and net debt, new commitments decline Substantial growth of EUR 59.5bn or +4.8% year on year was recorded in the aggregated balance sheet totals of French agencies in 2021. In 2020, CDC acquired 99.9% of the shares in Société de Financement (SFIL) and increased its shareholding in La Poste Groupe to 66%, which led to pronounced balance sheet growth on account of consolidated accounting. On closer inspection, the balance sheet growth in 2021 is also practically exclusively attributable to CDC (EUR +51.6bn). At 42.5%, SGP accounted for the highest balance sheet growth in percentage terms within the market segment covered here, increasing its total assets to EUR 26.7bn in the process. AFD, Bpifrance and AFL also all posted balance sheet growth in 2021. In contrast, however, CADES, Unédic, SFIL and 3CIF recorded what were in some cases significant contractions to their respective total assets. Net debt at the French agencies that we define as sub-sovereign "corporates" grew by EUR 35.8bn to EUR 198.5bn in 2021. As such, the rising trend from the previous year was continued. This figure is dominated by CADES, whose net financial liabilities increased by 25.7% to stand at EUR 118.8bn (approx. 60% of the total volume) in 2021. Unédic likewise recorded growth in its net debt of EUR 8.9bn to EUR 64.8bn, while, in contrast, SAGESS experienced a slight decline of 4.4% to EUR 4.3bn. In 2021, new commitments declined by 2.5% to now total EUR 27.3bn. In large part, this is attributable to developments at Bpifrance, whose volume fell by EUR 1.7bn to EUR 9.7bn. While AFD, AFL and SFIL all experienced growth in their new commitments of EUR 1.1bn in total, this was not quite sufficient to offset the negative dynamic.

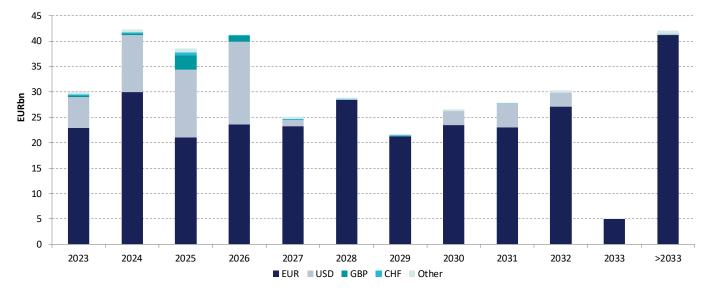
Comparison of balance sheet totals



### French agencies – net debt

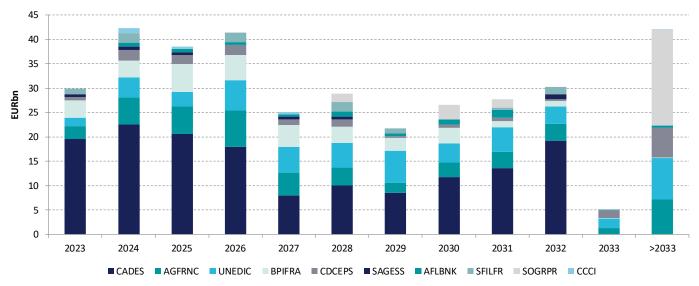


Source: Issuers, NORD/LB Markets Strategy & Floor Research



#### French agencies: outstanding bonds by currency

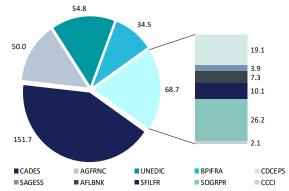




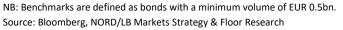
NB: Foreign currencies are converted into EUR at rates as at 12 April 2023. Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

#### Broad supply with strong focus on EUR

All in all, there is a relatively broad supply within the French agency market that extends across all maturity segments. The EUR is especially important in this respect. In terms of individual issuers, CADES dominates the supply. However, other agencies are set to come into focus over the longer term, as the mandate of CADES is set to expire in 2033. The second-largest issuer on the French agency market is currently Unédic, with AFD ranked third. Société du Grand Paris, which is responsible for the expansion of the public transport network in the Greater Paris region, is a relative newcomer to the market. For this task, its capital market debt level is capped at a maximum of EUR 35bn. In addition, the long-term funding strategy is 100% focused on green bonds.

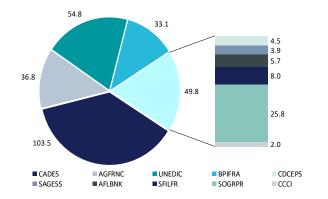


### Comparison of French agencies – outstanding bond volumes (EUR bn)



#### French agencies - an overview (EUR bn/EUR equivalent)

Comparison of French agencies – outstanding EUR benchmarks (EUR bn)



Name	Ticker	Rating (Fitch/Moody's/S&P)	Outstanding Volume	EUR volume	Funding target 2023	Maturities 2023	Net Supply 2023	Number of ESG bonds	ESG volume
CADES	CADES	AAu/Aa2/AA	151.7	104.9	30.0	20.2	9.8	28	105.7
AFD	AGFRNC	AA/-/AA	50.0	38.3	9.0	4.3	4.7	11	14.9
Unédic	UNEDIC	AA/Aa2/-	54.8	54.8	1.0	3.8	-2.8	10	28.0
CDC	CDCEPS	AA/Aa2/AA	19.1	11.9	4.0	1.7	2.3	4	2.0
Bpifrance	BPIFRA	AA/Aa2/-	34.5	34.2	4.0	4.5	-4.5	2	2.5
SAGESS	SAGESS	-/-/AA	3.9	3.9	0.6	0.6	0.0	0	0.0
AFL	AFLBNK	-/Aa3/AA-	7.3	6.2	2.0	0.8	1.2	3	1.1
SFIL	SFILR	-/Aa2/AA	10.1	8.0	2.5	1.1	1.4	2	1.0
SGP	SOGRPR	AA/Aa2/-	26.2	26.2	4.0	0.0	4.0	20	26.2
3CIF*	CCCI	AAu/Aa2/AAu A/Baa2/-	2.1	2.1	1.0	0.7	0.4	0	0.0
Total			359.8	290.5	58.1	37.6	16.5	80	181.4

\* 3CIF has both guaranteed and non-guaranteed bonds outstanding. NB: Foreign currencies are converted into EUR at rates as at 12 April 2023.

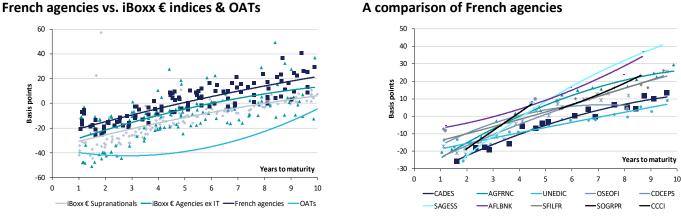
On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

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

### Comment

The French agency market is the second-largest of its type in Europe because of the substantial supply of EUR and foreign currency bonds. Owing to lofty funding targets on the part of CADES, AFD and SGP, the fresh supply is also at a high level. Generally speaking, we view French agency bonds as attractive potential substitutes for French government bonds because of their explicit or implicit guarantees. They also offer interesting pick-ups. In our view, the various special aspects of EP status should be noted. While this status may not constitute an explicit guarantee, it does, in general, represent a strong implicit liability mechanism in our view. The fact that the risk weighting under CRR differs between 0% and 20% and the LCR classification is also different results in the regulatory framework conditions varying more in France than in the agency market of any other jurisdiction. Finally, we should also acknowledge the high ESG volume, especially in the social segment. Due to its public mandate to finance and repay the debts of the social security system, CADES exclusively issues social bonds. In recent years, it has risen to become the largest social bond issuer worldwide. For its part, SOGRPR only issues green bonds, albeit on a smaller scale overall.

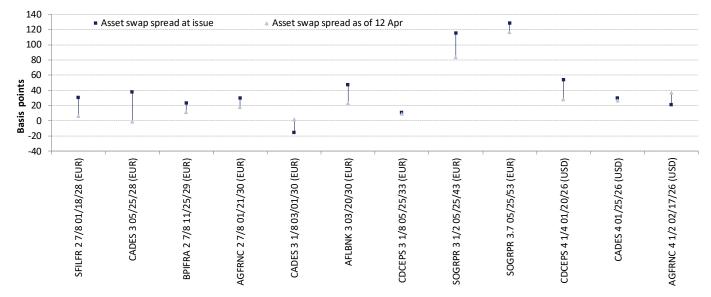
### France A comparison of spreads



\* Residual term to maturity > 1 year and < 10 years; outstanding volume at least EUR 0.5bn. Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

### France Primary market activities – an overview

#### Performance of fixed income benchmark issues 2022/23



NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn or USD 1.0bn. Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

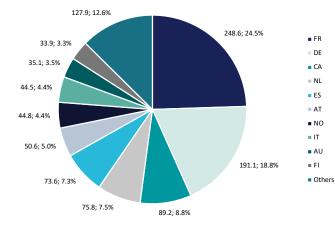
omberg, Nondy Eb Markets Strategy & Hoor R

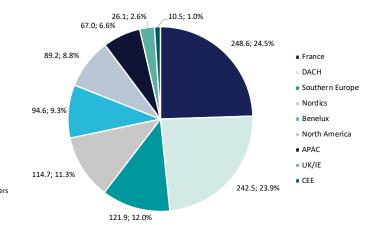
### Conclusion

In recent years, the primary market activities of the French agencies had tended to decline due to the lower funding requirements of CADES. However, with the onset of the Covid-19 pandemic and the resulting extension of CADES' mandate, this trend was reversed. We are also observing movement in the French agencies segment. For example, Société du Grand Paris accessed the capital market on a more regular basis as a "new" promotional entity and still has some scope for a couple of issues before hitting its debt ceiling of EUR 35bn. Overall, we assume that a positive net supply will be generated in this sub-segment across 2023.

### Charts & Figures Covered Bonds

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





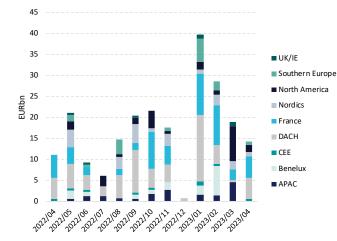
### EUR benchmark volume by region (in EURbn)

### **Top-10 jurisdictions**

Rank	Country	Amount outst. (EURbn)	No. of BMKs	There of ESG BMKs	Avg. issue size (EURbn)	Avg. initial maturity (in years)	Avg. mod. Duration (in years)	Avg. coupon (in %)
1	FR	248.6	239	16	0.97	9.6	5.2	1.15
2	DE	191.1	272	31	0.65	8.1	4.3	0.92
3	CA	89.2	67	0	1.31	5.5	2.9	0.91
4	NL	75.8	75	2	0.94	11.0	6.7	0.99
5	ES	73.6	59	6	1.14	11.1	3.7	1.93
6	AT	50.6	86	4	0.58	8.6	5.3	1.17
7	NO	44.8	54	11	0.83	7.3	3.8	0.52
8	IT	44.5	55	2	0.78	9.3	3.7	1.26
9	AU	35.1	34	0	1.03	7.3	3.6	1.32
10	FI	33.9	36	3	0.93	7.3	3.8	0.96

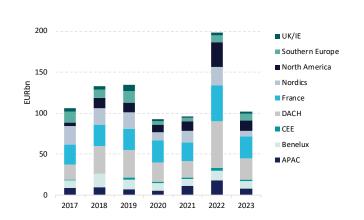
250

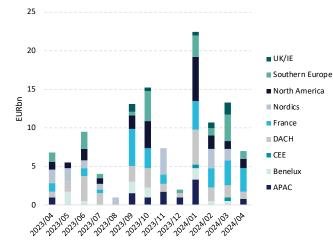
### EUR benchmark issue volume by month



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

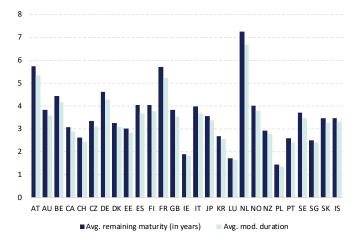
### EUR benchmark issue volume by year



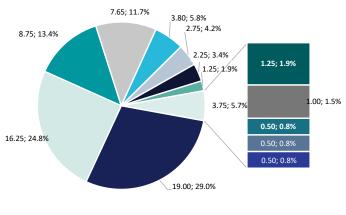


#### EUR benchmark maturities by month

### Modified duration and time to maturity by country



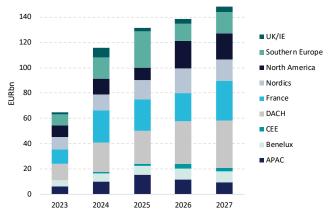
### EUR benchmark volume (ESG) by country (in EURbn)



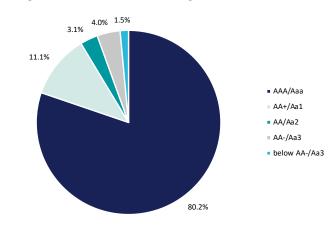
• DE = FR • NO = KR • ES = FI • AT • NL • IT • SE • SK • GB • PL

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

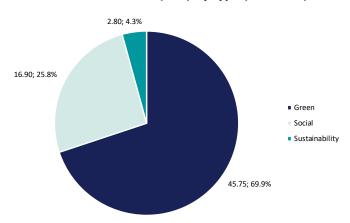
# EUR benchmark maturities by year

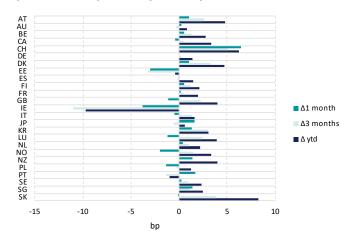


#### **Rating distribution (volume weighted)**



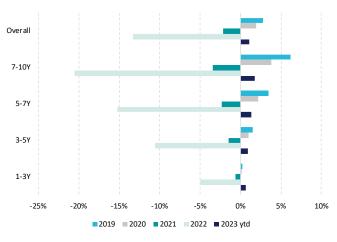
### EUR benchmark volume (ESG) by type (in EURbn)



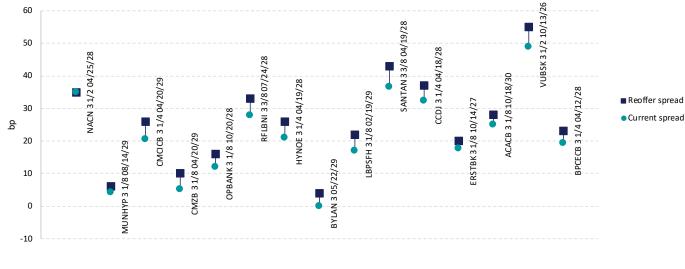


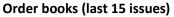
#### Spread development by country





#### Spread development (last 15 issues)

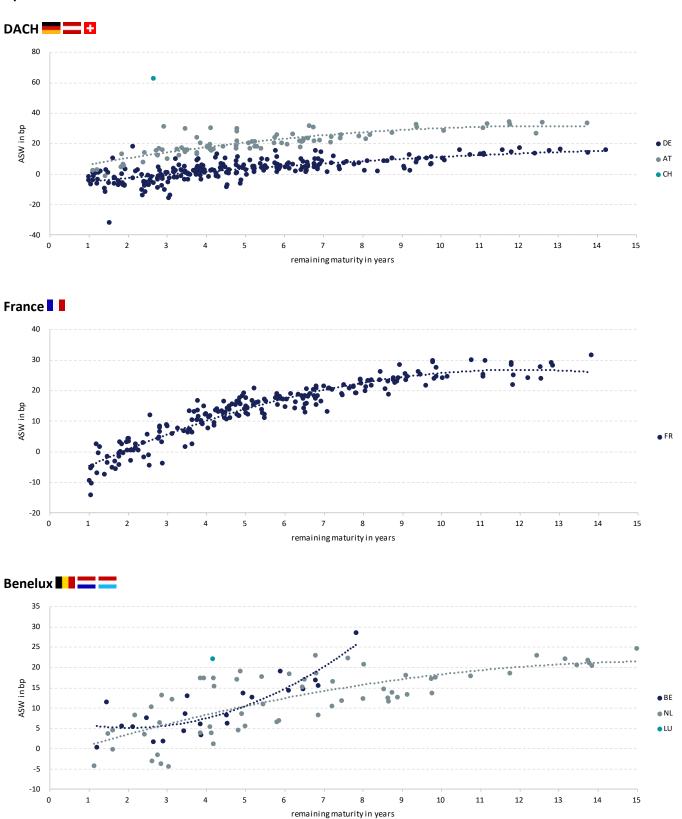






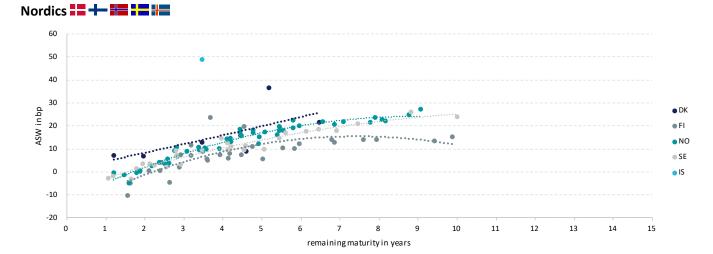
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

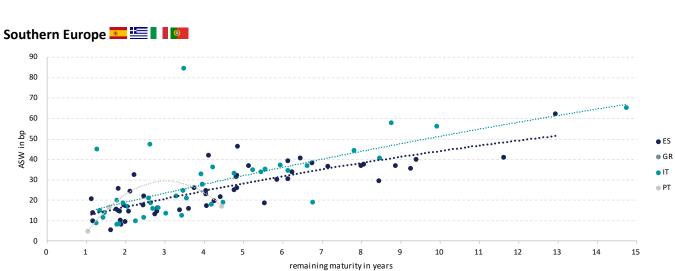




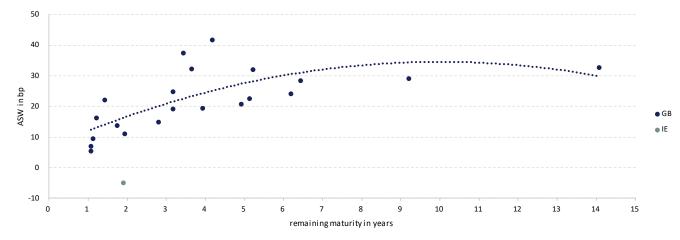
Spread overview<sup>1</sup>

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

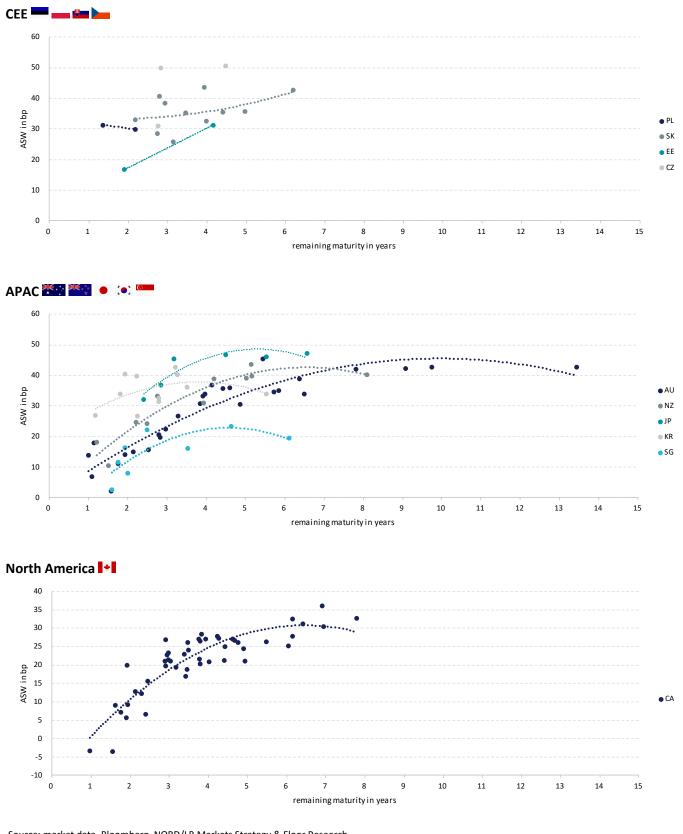








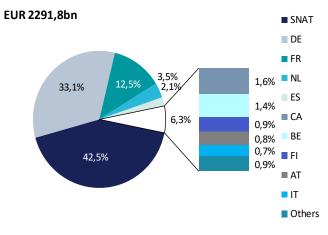
Source: market data, Bloomberg, NORD/LB Markets Strategy & Floor Research



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

### Charts & Figures SSA/Public Issuers

### **Outstanding volume (bmk)**



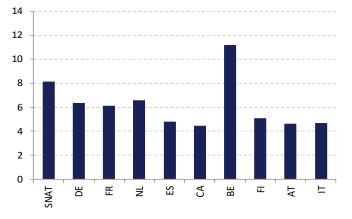
#### Top 10 countries (bmk)

-				
Country	Vol. (€bn)	No. of bonds	ØVol. (€bn)	Vol. weight. ØMod. Dur.
SNAT	974,7	225	4,3	8,1
DE	758,4	564	1,3	6,3
FR	285,9	188	1,5	6,2
NL	80,8	71	1,1	6,6
ES	47,4	64	0,7	4,8
CA	37,5	25	1,5	4,5
BE	31,5	35	0,9	11,2
FI	21,4	24	0,9	5,1
AT	17,8	21	0,8	4,6
IT	15,5	20	0,8	4,7

#### Issue volume by year (bmk)

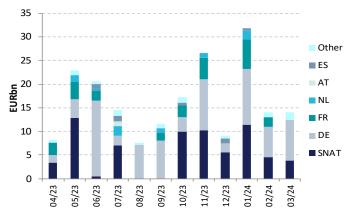


### Avg. mod. duration by country (vol. weighted)

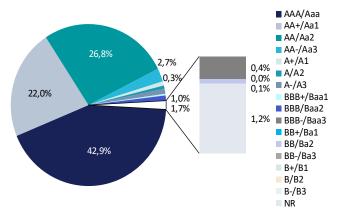


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

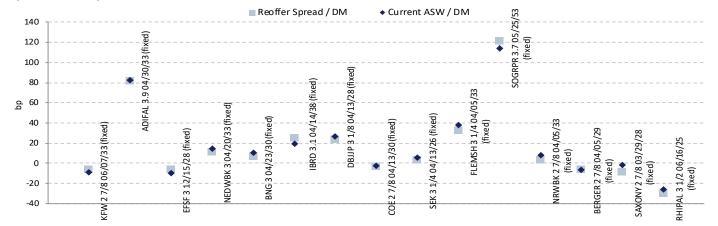
### Maturities next 12 months (bmk)



#### Rating distribution (vol. weighted)



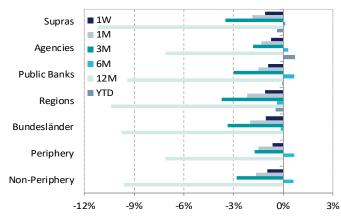
#### Spread development (last 15 issues)



#### Spread development by country

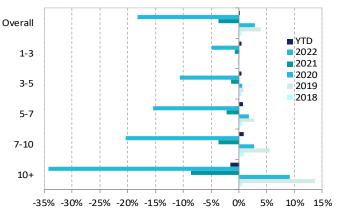


#### Performance (total return) by segments

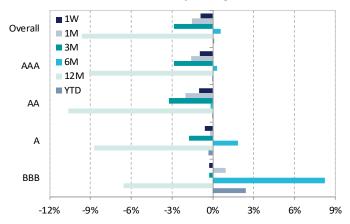


Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

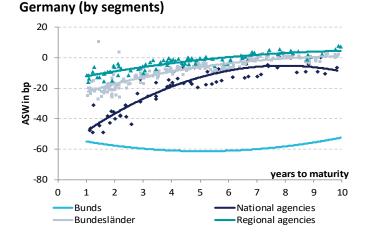
### Performance (total return)



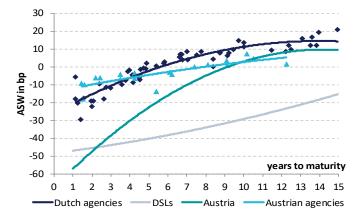
#### Performance (total return) by rating

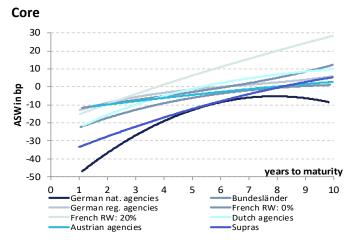


### NORD/LB

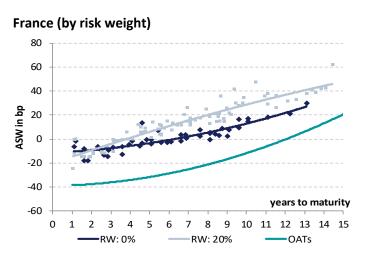


#### **Netherlands & Austria**

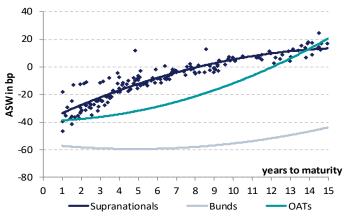




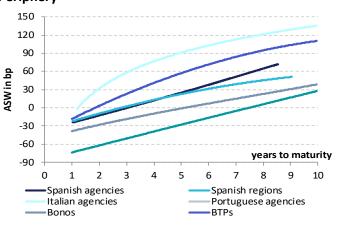








#### Periphery

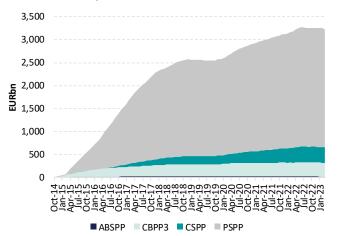


### ECB tracker

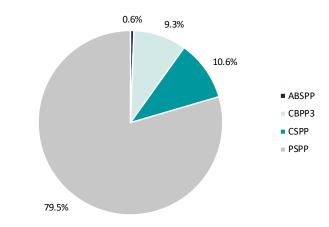
### Asset Purchase Programme (APP)

	ABSPP	СВРРЗ	CSPP	PSPP	APP
Feb-23	20,189	302,677	344,102	2,584,935	3,251,903
Mar-23	19,465	299,707	341,974	2,569,835	3,230,981
Δ	-681	-2,759	-1,848	-10,104	-15,392

### Portfolio development

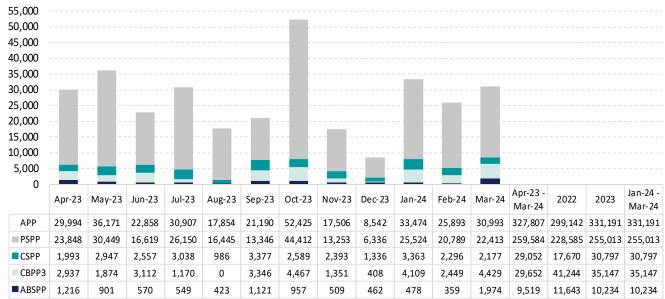


Portfolio structure

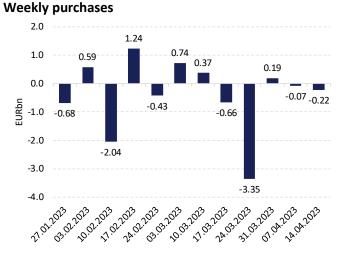


Source: ECB, NORD/LB Markets Strategy & Floor Research

### Expected monthly redemptions (in EURm)

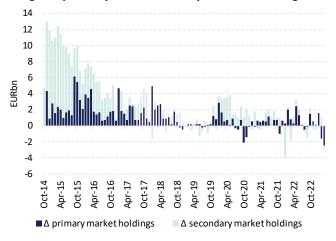


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research



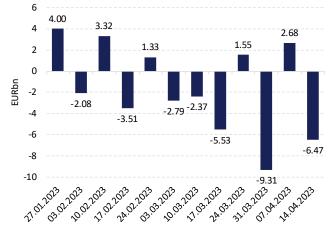
### **Covered Bond Purchase Programme 3 (CBPP3)**

#### Change of primary and secondary market holdings



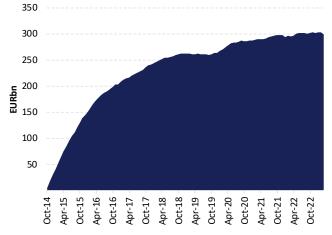
### Public Sector Purchase Programme (PSPP)



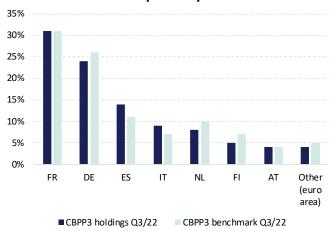


Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

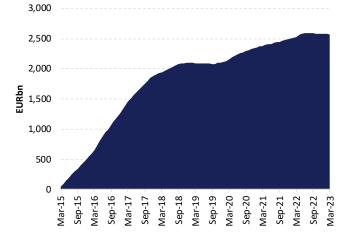
### **Development of CBPP3 volume**



#### Distribution of CBPP3 by country of risk

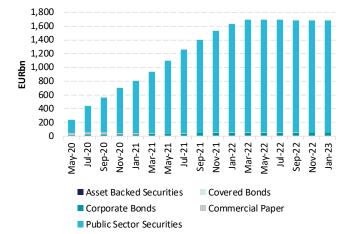


#### **Development of PSPP volume**

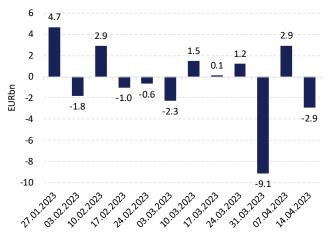


### Pandemic Emergency Purchase Programme (PEPP)

Portfolio development



### Weekly purchases



### Breakdown of public sector securities under the PEPP

Jurisdiction	Holdings (in EURm)	Δ Holdings previous period	Adj. distribution key <sup>1</sup>	PEPP share	Deviations from the adj. distribution key <sup>2</sup>	Current WAM <sup>3</sup> (in years)	WAM of eligible universe <sup>4</sup> (in years)
AT	45,107	588	2.6%	2.7%	0.1%	7.3	7.5
BE	56,425	-380	3.3%	3.4%	0.1%	6.3	9.2
CY	2,493	6	0.2%	0.2%	0.0%	8.1	8.0
DE	398,924	593	23.7%	24.0%	0.3%	6.8	7.1
EE	256	0	0.3%	0.0%	-0.2%	7.2	7.2
ES	195,878	-1,382	10.7%	11.8%	1.1%	7.3	7.4
FI	26,890	745	1.7%	1.6%	0.0%	7.5	7.9
FR	296,890	2,093	18.4%	17.9%	-0.5%	7.7	7.8
GR	37,726	-1,847	2.2%	2.3%	0.0%	8.6	9.3
IE	25,104	173	1.5%	1.5%	0.0%	9.2	10.0
IT	289,726	631	15.3%	17.4%	2.2%	7.2	6.9
LT	3,305	34	0.5%	0.2%	-0.3%	9.2	8.8
LU	1,941	23	0.3%	0.1%	-0.2%	5.8	7.9
LV	1,954	20	0.4%	0.1%	-0.2%	7.7	7.9
MT	607	1	0.1%	0.0%	-0.1%	10.3	8.6
NL	81,616	-1,171	5.3%	4.9%	-0.4%	7.8	8.7
РТ	33,964	-516	2.1%	2.0%	-0.1%	7.0	7.5
SI	6,344	41	0.4%	0.4%	-0.1%	8.9	9.3
SK	7,839	65	1.0%	0.5%	-0.6%	8.3	8.5
SNAT	148,088	1,173	10.0%	8.9%	-1.1%	10.2	8.9
Total / Avg.	1,661,078	892	100.0%	100.0%	0.0%	7.6	7.6

<sup>1</sup> Based on the ECB capital key, adjusted to include supras <sup>2</sup> Based on the adjusted distribution key

<sup>3</sup> Current WAM of public sector securities holdings under the PEPP <sup>4</sup> WAM of eligible universe of public sector securities holdings under the PEPP Source: ECB, Bloomberg, NORD/LB Markets Strategy & Floor Research

### Appendix Overview of latest Covered Bond & SSA View editions

Publication	Topics
<u>13/2023 🔶 05 April</u>	<ul> <li>Supply forecast requires no great adjustment</li> </ul>
	<ul> <li>Current risk weight of supranationals &amp; agencies</li> </ul>
12/2023    29 March	The Moody's covered bond universe – an overview
	NGEU: Green Bond Dashboard
11/2023    22 March	Covered Bonds: Under the spell of the banking crisis and ECB hawks?
	<ul> <li>ESG: EUR-benchmarks 2023 in the SSA segment (ytd)</li> </ul>
10/2023   15 March	Transparency requirements §28 PfandBG Q4/2022
	<ul> <li>Credit authorisations of the German Laender for 2023</li> </ul>
09/2023	ECB preview: Soft landing lets ECB play hard ball with key rates
	Where does the Pfandbrief stand within the covered bond universe?
08/2023 ♦ 01 March	The covered bond market and the ECB: a gradual farewell?
	<ul> <li>Beyond Bundeslaender: Focus on Greater Paris (IDF and VDP)</li> </ul>
07/2023    22 February	<ul> <li>The Italian market for EUR benchmark covered bonds</li> </ul>
<u>orreordery</u>	<ul> <li>European supranationals – an overview</li> </ul>
06/2023	<ul> <li>Maturity premiums on covered bonds</li> </ul>
	<ul> <li>Development of the German property market</li> </ul>
	<ul> <li>Spotlight on the EU: a mega issuer spawned by the crisis</li> </ul>
05/2023	<ul> <li>January 2023: record start to the new covered bond year</li> </ul>
	<ul> <li>SSA monthly review: dynamic issuance activity to kick off the new year</li> </ul>
04/2022 A 01 Echrucary	
04/2023    01 February	<ul> <li>Focus on covered bond jurisdictions: Canada in the spotlight</li> <li>Focus on covered bond jurisdictions: Slovakia and Czech Republic in the spotlight</li> </ul>
	<ul> <li>26th meeting of the Stability Council (December 2022)</li> </ul>
02/2022 A 25 January	<ul> <li>ECB preview: all eyes and ears on the press conference</li> </ul>
03/2023    25 January	<ul> <li>Successful start to the year for EUR sub-benchmarks as well</li> </ul>
	<ul> <li>ESG covered bonds from France: La Banque Postale SFH issues inaugural social covered bond</li> </ul>
02/2022 4 18 January	
02/2023    18 January	<ul> <li>Focus on covered bond jurisdictions: Belgium in the spotlight</li> <li>The Moody's covered bond universe: an overview</li> </ul>
	<ul> <li>Beyond Bundeslaender: focus on Belgian issuers</li> </ul>
01 (2022 + 11 January	
01/2023   11 January	<ul> <li>ECB review: 2022 entailed all manner of monetary policy action</li> <li>Covered Bonds Annual Review 2022</li> </ul>
	<ul> <li>SSA: Annual review of 2022</li> </ul>
20/2022 + 11 December	
<u>39/2022 ♦ 14 December</u>	<ul> <li>Our view of the covered bond market heading into 2023</li> <li>SSA outlook 2023: ECB, NGELL and the debt brake in Germany.</li> </ul>
38/2022	ECB preview – next hike but total assets (finally) reduced?!
	<ul> <li>Covered bond jurisdictions in the spotlight: a look at Spain</li> </ul>
NORD/LB:	NORD/LB: NORD/LB: Bloomberg:
Markets Strategy & Floo	or Research         Covered Bond Research         SSA/Public Issuer Research         RESP NRDR <go></go>

### Appendix Publication overview

### **Covered Bonds:**

Issuer Guide Covered Bonds 2022

Covered Bond Directive: Impact on risk weights and LCR levels

Risk weights and LCR levels of covered bonds (updated semi-annually)

Transparency requirements §28 PfandBG Q4/2022 (quarterly update)

Covered bonds as eligible collateral for central banks

### SSA/Public Issuers:

<u> Issuer Guide – German Laender 2022</u>

<u> Issuer Guide – German Agencies 2022</u>

<u>Issuer Guide – European Supranationals 2023</u>

Issuer Guide – Dutch Agencies 2022

**Beyond Bundeslaender: Belgium** 

Beyond Bundeslaender: Greater Paris (IDF/VDP)

**Spotlight on Spanish regions** (Update planned in 2023)

### **Fixed Income Specials:**

ESG-Update 2022

ECB interest rate decision: Backbone in times of turmoil?!

ECB interest rate decision: Roadmap to QT

ECB: The Wishing-Table, the Gold-Ass, and the Cudgel in the Sack

ECB interest rate decision: delivered as expected?

### Appendix Contacts at NORD/LB

### **Markets Strategy & Floor Research**



**Dr Frederik Kunze** Covered Bonds/Banks

+49 172 354 8977 frederik.kunze@nordlb.de



Covered Bonds/Banks +49 172 169 2633

**Melanie Kiene** 

melanie.kiene@nordlb.de

**Stefan Rahaus** Covered Bonds/Banks

+49 172 6086 438 stefan.rahaus@nordlb.de



**Dr Norman Rudschuck** SSA/Public Issuers

+49 152 090 24094 norman.rudschuck@nordlb.de

Sales		Trading	
Institutional Sales	+49 511 9818-9440	Covereds/SSA	+49 511 9818-8040
Sales Sparkassen & Regionalbanken	+49 511 9818-9400	Financials	+49 511 9818-9490
Sales MM/FX	+49 511 9818-9460	Governments	+49 511 9818-9660
Sales Europe	+352 452211-515	Länder/Regionen	+49 511 9818-9550
		Frequent Issuers	+49 511 9818-9640
Origination & Syndicate		Sales Wholesale Customers	
Origination FI	+49 511 9818-6600	Firmenkunden	+49 511 361-4003
Origination Corporates	+49 511 361-2911	Asset Finance	+49 511 361-8150

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

### **Relationship Management**

Institutionelle Kunden	rm-vs@nordlb.de
Öffentliche Kunden	<u>rm-oek@nordlb.de</u>

#### 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. Likewise, this information does not constitute an investment recommendation or investment strategy recommendation within the meaning of the Market Abuse Regulation (EU) No. 596/2014.

This report and the information contained herein have been compiled and are provided exclusively for information purposes. The present information is not intended as an investment incentive. It is provided for the Recipient's personal information, subject to the express understanding, which shall be acknowledged by the Recipient, that it does not constitute any direct or indirect offer, recommendation, solicitation to purchase, hold or sell or to subscribe for 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. For the preparation of this information, NORD/LB uses issuer-specific financial data providers, own estimates, company information and public media. 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 set forth in the present Report (irrespective of whether such losses are incurred due to any negligence on the part of these 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 provide 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 <u>www.nordlb.de</u>.

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 <a href="http://www.dsgv.de/sicherungssystem">www.dsgv.de/sicherungssystem</a>.

#### 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 AUS-TRALIAN 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 there-to, 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 within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant there-to, 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 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.

Time of going to press: Wednesday, 19 April 2023 (08:48)