



Issuer Guide Covered Bonds 2023

NORD/LB Markets Strategy & Floor Research



NORD/LB ISSUER GUIDE COVERED BONDS 2023

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Introduction Foreword

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Eleventh edition of the NORD/LB Issuer Guide Covered Bonds

The NORD/LB Issuer Guide Covered Bonds, which is published on a yearly basis, is part of a series of products from the NORD/LB Markets Strategy & Floor Research team covering individual issuers and market segments in the global bond market. Following on from the first issue in 2013, this edition is now the eleventh publication in this format, which has consistently provided an extensive overview of the covered bond market. The focus of the Issuer Guide Covered Bonds is on issuers of covered bonds and their respective cover pools. The following publication lists all banks that have at least one outstanding publicly placed EUR benchmark (equal to or greater than EUR 500m) and/or EUR sub-benchmark (equal to or greater than EUR 250m, but less than EUR 500m) with a fixed coupon. With 219 cover pools operated by a total of 180 banks from 27 separate jurisdictions overall, this year we are again confident of offering you a comprehensive overview of the global covered bond market with this present publication.

NORD/LB publications on covered bonds to supplement this Issuer Guide

To complement the Issuer Guide, which aims to provide as comprehensive a market overview as possible, our publication spectrum also looks at specific market developments and fundamental changes in framework conditions across the covered bond market as a whole. These regular publications can be found in the usual manner on our website (www.nordlb.de/die-nordlb/floor-research) and on the NORD/LB Research portal at Bloomberg (<a href="RESP NRDR <GO>">RESP NRDR <GO>). Should any of our readers not yet have access to these platforms, then please contact your account manager or alternatively get in touch via email at: markets@nordlb.de.

Printed version of the Issuer Guide Covered Bonds will be dictated by actual demand

In 2023, the Issuer Guide Covered Bonds will again be exclusively available in PDF format. This is a decision that we have taken with sustainability aspects in mind. However, even a sustainable approach calls for some leeway: should any of our readers prefer the Issuer Guide in printed format for their work, then we will gladly supply a printed version. Please get in touch with your account manager to provide a delivery address and indicate the number of copies required. Alternatively, our readers can also contact markets markets@nordlb.de.

NORD/LB Issuer Guide Covered Bonds 2023: content aspects

In this latest edition of the NORD/LB Issuer Guide Covered Bonds, as in previous years, our focus is on providing a holistic overview of issuers and cover pools. In addition, you will also find a description of the classification of covered bonds in terms of the CRR and LCR management in the chapter covering regulatory matters. We have also summarised the covered bond legislation of the relevant jurisdictions for you in a tabular comparison and the current Issuer Guide again addresses the central bank eligibility of covered bonds. The significance of the risk assessment of covered bonds has increased in importance, not least in view of current market developments. This is one of the reasons why we have included a summary of the relevant rating approaches for covered bonds in this year's publication. On the market side, you will also find information on the maturity structures of covered bond issues. We also take account of the growing importance of ESG aspects with an overview of sustainable covered bonds. We hope that you enjoy reading the latest instalment of the NORD/LB Issuer Guide Covered Bonds and are certain that this publication will continue to provide added value to you in your day-to-day work. We would be happy to assist with any queries you may have and are additionally open to suggestions for future editions.



Introduction The covered bond market in 2023

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Covered bonds and their relevance for investors and issuers remains at a high level

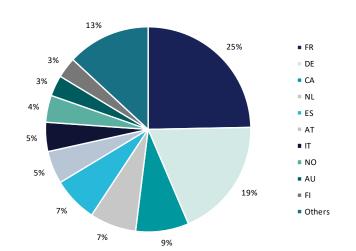
There is no doubt that what has happened in the covered bond market in the first eight months of 2023 is remarkable. The withdrawal of the European Central Bank (ECB) as an active player in the primary and secondary markets has been surprisingly swift in our view. The start of quantitative tightening and the turnaround in key interest rates, which began as early as 2022, coincided with the repricing on the covered bond market. The supposed gap left by the Eurosystem on the investor side of the primary market, among others, closed comparatively quickly. This also applies in light of high issuance volumes on the primary market for covered bonds in the EUR benchmark format. Demand was certainly supported by the new yield environment in the market for covered issues, which can be attributed to both the turnaround on interest rates and repricing in the covered bond segment. From an issuer's point of view, covered refinancing remains an important funding component. The importance of covered bonds has increased markedly for various reasons. For example, the ongoing repayment of TLTRO III tenders by commercial banks or the threat of declining or the increased cost of customer deposits in a new competitive climate. The repricing of the general market risk or specific risk factors also makes alternative refinancing instruments (the senior unsecured bond segment comes to mind here) appear more expensive, at least for some issuers. To sum up, the relevance of the asset class covered bonds remains considerable for both investors and issuers. Below we provide a brief market overview of the EUR benchmark and EUR sub-benchmark segments. These two sub-markets also form the basis for the NORD/LB Issuer Guide Covered Bonds 2023.

EUR benchmark segment: Outstanding issues and spread development

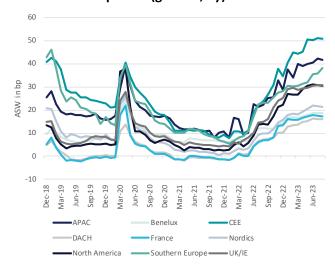
The EUR benchmark segment for covered bonds remains on a growth path. Currently, the outstanding volume totals EUR 1,025bn, spread over 1,178 issues. France (25%) and Germany (19%) account for the largest shares - followed by Canada (8%), the Netherlands (7%) and Spain (6%). Due to increased issuance activity, which can be attributed in particular to new additions on the issuer side, Austria has a market share of 5% - just like Italy. It should be noted that a significantly delayed full implementation of the EU Covered Bond Directive denied Italian issuers primary market access for almost a whole year. In contrast to the total outstanding volume, we regularly focus on those bonds that are included in the iBoxx EUR Covered benchmark index, especially for the spread development within the framework of the Issuer Guide. Based on the selection criteria, emissions with a remaining term of less than one year are excluded. The spread developments of the bonds represented in the benchmark index impressively demonstrate the repricing in the covered bond segment. In our opinion, one of the most important aspects is the differentiation of the spread landscape. As a result of the repricing of risk premiums but also of the more market-based composition of investor demand, for example the "usual" intervals between the generic curves of the different covered bond jurisdictions have set in.



EUR BMK: Distribution of outstanding volume



EUR BMK: ASW spreads (generic, 5y)

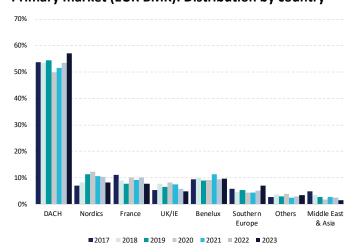


Source: Market data, Bloomberg, NORD/LB Markets Strategy & Floor Research

Primary market: Allocations dominated by ECB withdrawal and short maturities

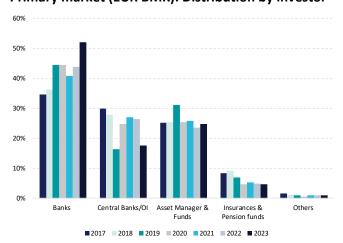
Following the pronounced issuance activity in 2022, the primary market has also been quite dynamic this year. The market's absorption capacity remained more than robust, even considering the abundance of fresh deals. Nevertheless, it is important to note that shorterterm deals have started to dominate in terms of the selected maturities of covered bond issues. This is both a consequence of investor preferences and the result of the inverse structure of the swap curve. The latter makes longer-term deals more expensive for issuers, with the maturity spread between three- and ten-year issues on the secondary market, for example, currently significantly higher than the long-term averages. The allocation of the newly placed EUR benchmarks highlights the change in ECB monetary policy, particularly with regard to the distribution by investor type. Unsurprisingly, the "Central Banks/OI" category is declining. A sharp increase in the relative share has been recorded by the commercial banks (category: "Banks"). In this proportional view, it should also be taken into account that absolute allocation has also increased significantly in those categories that do not indicate a striking increase in relative values. This observation supports our conclusion that realmoney investors are returning and that there has been a noticeable reversal in the crowdingout effect triggered by the ECB.

Primary market (EUR BMK): Distribution by country



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

Primary market (EUR BMK): Distribution by investor

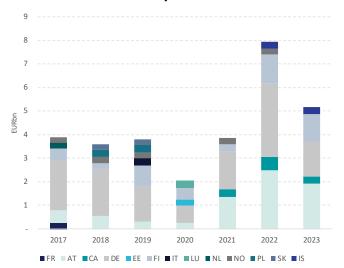




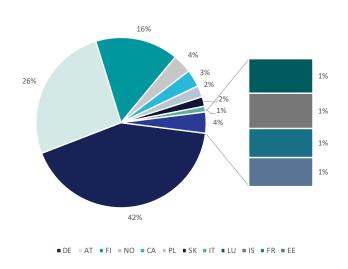
EUR sub-benchmark segment: Niche market with growth potential

In addition to the EUR benchmark segment, the Issuer Guide also covers publicly placed issues that have a volume of at least EUR 250m – but not yet a benchmark size (at least EUR 500m). We see the EUR sub-benchmark segment as a niche market with growth potential. Ultimately, this sub-segment provides an opportunity for issuers who do not (yet) have a sufficient cover pool to build up a liquid curve in the EUR benchmark segment to approach their investors at regular intervals. From an investor's perspective, the spread pick-up of the smaller issues is often seen as an argument for buying EUR sub-benchmarks. The outstanding volume of this sub-market totals EUR 28bn, with Germany (42%), Austria (26%) and Finland (16%) accounting for the largest shares. Altogether, the Issuer Guide database comprises 29 cover pools linked to EUR sub-benchmarks but not to EUR benchmarks. By comparison, the number of pools linked to EUR benchmarks amounts to 179. Of these, a total of eleven programmes have covered bonds in both formats.

EUR SBMK: Issuance history



EUR SBMK: Distribution by country



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

Conclusion and outlook

The markets for euro-denominated publicly placed covered bonds in benchmark or subbenchmark format continue to develop dynamically. This is particularly true of the highly liquid market for transactions with a volume of EUR 500m and above. The EUR benchmark segment has been characterised by a period of repricing in recent months. We see this process of strong and sustained spread widening as already very advanced. Primary market activity is likely to remain pronounced following the buoyant start after the summer break. Looking ahead to the second half of 2023 – but also with a view to 2024 – we see the increased relevance of a fundamental analysis of the individual sub-markets as significant. From an investor's point of view, this also means looking through to the level of the individual cover pools. This also applies based on our premise that there will be no significant deterioration in the fundamentals, although spreads can differ depending on the different types of pools, their geographical allocation or even the granularity of the cover pools. We also see specific factors at issuer level or based on the legal framework increasingly influencing prices in the future. This is a return to "normality" after the phase of market distortion due to the ECB. This Issuer Guide is intended to provide a guide to assessing the market.



Introduction Overview of issuers

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Austral of & New Zealand Banking Group Ltd M 30,895 31,477 337 BMK 2A / 20% 55 AAA / Aaa / -/- Aaaa / -/- Aaa / -/- Aa	Australia	Туре	Cover Pool	Outst. Volume	OC (%)	(S)BMK	LCR level /	Maturity	Covered Bond rating
Bank of Queensland Ltd	Australia 9 Naur Zaala ed Declina Con 111		(EURm)	(EURm)	(%)		Risk weight	Туре	(Fitch / Moody's / S&P / DBRS)
Commonwesht Bank of Australia M 21,648 18,270 18,5 58 MK 2A / 20% 58 AAA / Aaa / - National Australia Bank ttd M 13,28 540 146,0 8MK 2A / 20% 58 AAA / Aaa / - National Australia Bank ttd M 19,419 14,362 35.2 8MK 2A / 20% 58 AAA / Aaa / - National Australia Bank ttd M 19,419 14,362 35.2 8MK 2A / 20% 58 AAA / Aaa / - AaA / - Aaa / - AaA / - Aaa / - AaA / - Aaa / - AaA / - Aaa / - AaA / - Aaa / - AaA / - AaA / - Aaa / - AaA / Aaa / - Aaa			,				-		
Macquarie Bank Ltd			· ·				-		
National Australia Bank tide			-	•			-		
Maching Mach	•		•				-		
Austria Type Cover Pool Clurk			-	•			-		
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BAWAG PSK Bank fuer Arbeit und Wirt-schaft und Oestandt	Bank fuer Tirol und Vorarlberg AG	М	777	530	46.6	SBMK	2A / 10%	НВ	-/-/AAA/-
schaft und Oesterreichische Postsparkasse P 2,006 1,470 36.5 BMK 1/10% HB & 5 -/Aaa /-/- Erite Group Bank AG W 27,935 21,053 32.7 BMK 1/10% HB & 5 -/Aaa /-/- Erite Group Bank AG P 4,571 3,491 30.9 BMK 1/10% SB -/Aa1/-/- erich und Wien AG M 2,782 2,501 11.2 BMK/ SBMK 1/10% SB -/Aa1/-/- HYPO NOE Landesbank fuer Niederoester- M 3,113 2,682 16.1 BMK 1/10% SB -/Aa1/-/- HYPO Trol Bank AG M 2,782 2,501 11.2 BMK/ SBMK 1/10% SB -/Aa1/-/- Hypo Trol Bank AG M 5,580 4,334 28.8 BMK 1/10% SB -/Aa1/-/- Hypo Trol Sank AG P 1,248 1,098 13.6 SBMK 2A/10% HB 8.58 -/Aa1/-/- Oberbank AG M 3,809 2,277 67.3 SBMK 2A/10% HB 8.58 -/Aa1/-/- Oberbank AG M 3,809 2,277 67.3 SBMK 2A/10% HB 8.58 -/-Aa1/-/- Oberbank AG M 4,531 3,525 28.5 BMK 2A/10% HB -/-/AA/- Oberbank Northerg M 3,674 2,986 23.0 BMK/ SBMK 2A/10% HB 8.59 -/Aaa/-/- Raiffeisen landesbank Vorarberg M 3,674 2,986 23.0 BMK // SBMK 2A/10% HB 8.59 -/Aaa/-/- Raiffeisen landesbank Vorarberg M 3,674 2,986 23.0 BMK // SBMK 2A/10% HB 8.59 -/Aaa/-/- Raiffeisen landesbank Nicederoesterreich M 10,051 7,752 29.7 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen landesbank Oberoesterreich M 10,051 7,752 29.7 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen landesbank Stelermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Stelermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Tirol AG M 3,444 2,551 35.0 BMK // SBMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Tirol AG M 3,444 2,551 35.0 BMK // SBMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 2,234 1,756 31.8 SBMK 2A/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,135 9,473 80.9 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,1350 9,473 80.9 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,1350 9,750 31.9 BMK 1/10% HB 8.59 -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,1350 9,750 37.9 BMK 1/10% SB -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,1350 9,750 37.9 BMK 1/10% SB -/Aaa/-/- Raiffeisen-landesbank Vorarberg M 1,1350 9,750 37.9 BMK 1/10% SB -/Aaa/-/- Rai	Bausparkasse Wuestenrot AG	M	2,034	1,527	33.2	SBMK	2A / 10%	НВ	-/-/AAA/-
Erste Group Bank AG M 27,935 Z1,053 Z2,050 BMK 1/10% BB SB -/Aa1/-/- reich und Wien AG M 2,782 Z,951 112 BMK / SBMK 1/10% SB -/Aa1/-/- reich und Wien AG M 2,782 Z,950 1112 BMK / SBMK 1/10% SB -/Aa1/-/- reich und Wien AG M 2,782 Z,950 1112 BMK / SBMK 1/10% SB -/Aa1/-/- Raiffeise Bank AG M 3,809 Z,277 673 SBMK 2A/20% HB -/-AA-/- AA-/- A	BAWAG PSK Bank fuer Arbeit und Wirt-	M	11,120	10,226	8.7	BMK	1 / 10%	HB & SB	- / Aaa / - / -
HYPO NDE Landesbank fuer Niederoester	schaft und Oesterreichische Postsparkasse	Р	2,006	1,470	36.5	BMK	1 / 10%	НВ	- / Aaa / - / -
reich und Wien AG P 4,571 3,491 30.9 BMK 1/10% SB -/Aa1/-/- Hypp Trol Bank AG M 2,782 2,501 11.2 BMK / SBMK 1/10% SB -/Aa1/-/- Hypp Trol Bank AG M 5,580 4,334 28.8 BMK / SBMK 1/10% HB 8.58 -/Aaa/-/- Kommunalkredit Austria AG P 1,248 1,098 13.6 SBMK 2A/10% HB 8.58 -/-Aa/-/- Kommunalkredit Austria AG M 3,809 2,277 67.3 SBMK 2A/10% HB 8.58 -/-/AA/- Oberobaterreichische Landesbank AG M 2,762 2,448 12.8 SBMK 2A/10% HB 8.58 -/-/AA/- Oberobaterreichische Landesbank AG M 4,531 3,525 28.5 BMK 1/10% SB -/-Aal/-/- Raiffeisen Landesbank Vorarlberg M 3,674 2,986 23.0 BMK / SBMK 1/10% HB 8.58 -/-/AA/-/- Wien AG P 2,531 2,010 25.9 BMK 1/10% HB 8.58 -/-/Aa/-/- Raiffeisen-Landesbank Oberoesterreich AG M 6,364 4,251 49.7 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Wien AG M 17,135 9,473 80.9 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Wien AG M 17,135 9,473 80.9 BMK 1/10% HB 8.58 -/-/Aaa/-/- Raiffeisen-Landesbank Wien AG M 13,250 9,992 21.4 BMK 1/10% HB 8.58 -/-/Aaa/-/- Belgium Argenta Sparbank NV M 13,450 9,9750 37.9 BMK 1/10% HB 8.58 -/-/AaA/- BNP Paribas Fortis SA M 1,265 9,992 21.4 BMK 1/10% SB -/-/AAA/- BNP Paribas Fortis SA M 1,265 9,992 21.4 BMK 1/10% SB -/-/AAA/- BNP Paribas Fortis SA M 1,3450 9,750 37.9 BMK 1/10% SB -/-/AAA/- BNA Paribas Fortis SA M 1,3450 9,750 37.9 BMK 1/10% SB -/-/AAA/- BNA Paribas Fortis SA M 1,3450 9,750 37.9 BMK 1/	Erste Group Bank AG	M	27,935	21,053	32.7	BMK	1 / 10%	HB & SB	- / Aaa / - / -
Hypo Torlo Bank AG M 5,580 4,344 2,85 BMK 1/10% HB & SB -/ Aaa / -/- Kommunalkredik Austria AG P 1,248 1,098 13.6 SBMK 2A/10% HB & SB -/ Aaa / -/- Kommunalkredik Austria AG P 1,248 1,098 13.6 SBMK 2A/10% HB 8-/- AAA / - Oberbank AG M 3,809 2,277 67.3 SBMK 2A/10% HB 8-/- / AA / - Oberbank AG M 2,762 2,448 12.8 SBMK 2A/10% HB 8-/- / AA / - Oberbank AG M 4,531 3,525 28.5 BMK 2A/10% HB 8-/- / AAA / - Oberbank AG M 4,531 3,525 28.5 BMK 2A/10% HB 8-/- / AAA / - Oberbank AG M 4,531 3,525 28.5 BMK 2A/10% HB 8-/- / AAA / - Raliffeisen Bank International AG M 4,531 3,525 28.5 BMK 1/10% BB 5B -/ Aaa / -/- Raliffeisen Bank Niederoesterreich M 10,051 7,752 29.7 BMK 1/10% HB & SB -/ Aaa / -/- Raliffeisenlandesbank Voerbeaterreich AG M 6,364 4,251 49.7 BMK 1/10% HB & SB -/ Aaa / -/- Raliffeisen-landesbank Oberoesterreich AG M 6,364 4,251 49.7 BMK 1/10% HB & SB -/ Aaa / -/- Raliffeisen-landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB & SB -/ Aaa / -/- Raliffeisen-landesbank Tillor AUSTRIAG M 1,735 9,473 80.9 BMK 1/10% HB & SB -/ Aaa / -/- Raliffeisen-verband Salzburg eGen M 2,314 1,756 31.8 SBMK 2A/10% HB & SB -/ Aaa / -/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/ Aaa / -/- Belgium Type (EURm) (WK) Regenta Spaarbank NV M 2,455 2,000 22.8 BMK 1/10% HB & SB -/- Aaa / -/- Belgium Type (EURm) (WK) Regenta Spaarbank NV M 12,126 9,992 114 BMK 1/10% BB SB -/- Aaa / -/- Belgium SA M 1,3,450 9,750 37.9 BMK 1/10% SB -/- Aaa / -/- Canada Type (Cover Pool (EURm) (WK) Bank of Montreal M 13,450 9,750 37.9 BMK 1/10% SB -/- Aaa / -/ Canada M 13,450 9,750 37.9 BMK 1/10% SB -/- Aaa / -/ Canada M 13,450 9,750 37.9 BMK 1/10% SB -/	HYPO NOE Landesbank fuer Niederoester-	M	•	2,682	16.1	BMK	1 / 10%	SB	-/Aa1/-/-
Hypo Vorariberg Bank AG	reich und Wien AG	Р			30.9		1 / 10%		
Nommunalkredit Austria AG	Hypo Tirol Bank AG		· ·			-	-		
Oberbank AG	Hypo Vorarlberg Bank AG	M	5,580	4,334	28.8	BMK	1 / 10%	HB & SB	- / Aaa / - / -
Oberoesterreichische Landesbank AG M 2,762 2,448 12.8 SBNK 2A / 10% HB -/- / AA+ / Raiffeisen Bank International AG M 4,531 3,525 28.5 BMK 1/10% SB -/ - / AA1 / Raiffeisen Landesbank Vorariberg M 3,674 2,986 23.0 BMK / SBMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen Landesbank Niederoesterreich M 10,051 7,752 29.7 BMK 1/10% HB & SB -/ Aaa /- /- Raiffeisenlandesbank Niederoesterreich M 10,051 7,752 29.7 BMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen-Landesbank Niederoesterreich AG M 6,364 4,251 49.7 BMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen-Landesbank Steiermark AG M 7,705 5,345 44.2 BMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen-Landesbank Tiol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/ Aaa /- /- Raiffeisen-Vandesbank Tiol AG M 2,314 1,756 31.8 SBMK 2A / 10% HB & SB -/ Aaa /- /- Aaa /- /- Volksbank Wien AG M 7,715 9,473 80.9 BMK 1/10% HB & SB -/ Aaa /- /- Aaa /-	Kommunalkredit Austria AG		•				· · · · · · · · · · · · · · · · · · ·		
Raiffeisen Bank International AG Raiffeisen Bank International AG Raiffeisen Landesbank Vorariberg M 3,674 2,986 23.0 BMK 1/10% BB & SB -/Aaa / -/ Raiffeisen Landesbank Niederoesterreich M 10,051 7,752 29.7 BMK 1/10% BB & SB -/Aaa / -/ Raiffeisen Bank Roberoesterreich M 10,051 7,752 29.7 BMK 1/10% BB & SB -/Aaa / -/ BMK SB -/Aaa / -/ BB &	Oberbank AG	M	3,809	2,277	67.3		2A / 10%		- / - / AAA / -
Raiffeisen Landesbank Norarlberg M 10,051 7,752 29.7 BMK 1/10% HB & SB -/ Aaa / -/- Raiffeisenlandesbank Niederoesterreich- M 10,051 7,752 29.7 BMK 1/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank Oberoesterreich AG Raiffeisen-Landesbank Oberoesterreich AG Raiffeisen-Landesbank Oberoesterreich AG Raiffeisen-Landesbank Suberoesterreich AG Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK 1/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK SBMK 1/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank Tirol AG M 2,314 1,756 31.8 SBMK 2A/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/ Aaa / -/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank NV M 5,287 2,502 111.3 BMK 1/10% HB & SB -/ Aaa / -/- Raiffeisen-Landesbank NV Risk weight M 12,126 9,992 21.4 BMK 1/10% SB -/- Aaa / -/- BHP Paribas Fortis SA M 12,126 9,992 21.4 BMK 1/10% SB -/- Aaa / -/- BNP Paribas Fortis SA M 13,450 9,750 37.9 BMK 1/10% SB -/- Aaa / -/- BNP Paribas Fortis SA M 13,450 9,750 37.9 BMK 1/10% SB -/- Aaa / -/- Canada Type Cover Pool (EURm) Cover Pool	Oberoesterreichische Landesbank AG	M	2,762	2,448			-		
Raiffeisenlandesbank Niederoesterreich- M 10,051 7,752 29,7 BMK 1/10% HB & SB -/Aaa / -/- Wien AG P 2,531 2,010 25,9 BMK 1/10% SB -/Aaa / -/- Raiffeisenlandesbank Oberoesterreich AG M 6,364 4,251 49,7 BMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44,2 BMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Tirol AG M 17,135 9,473 80,9 BMK 1/10% HB & SB -/Aaa / -/- Volksbank Wien AG M 17,135 9,473 80,9 BMK 1/10% HB & SB -/Aaa / -/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/Aaa / -/- Volksbank Wien AG M 2,455 2,000 22.8 BMK 1/10% BB -/-Aaa / -/- Belgium Cover Pool (EURm) Cover Po				•			-		
Wien AG	Raiffeisen Landesbank Vorarlberg	M	3,674	2,986		BMK / SBMK	-		
Raiffeisenlandesbank Oberoesterreich AG M 7,706 5,345 4,251 49,7 BMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB & SB -/Aaa / -/- Raiffeisen-Landesbank Triol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/Aaa / -/- Raiffeisenverband Salzburg eGen M 2,314 1,756 31.8 SBMK 2A / 10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa / -/- Belgium Fagura M 1,1345 9,473 80.9 BMK 1/10% BM	Raiffeisenlandesbank Niederoesterreich-		· ·	7,752	29.7	BMK	1 / 10%		
Raiffeisen-Landesbank Steiermark AG M 7,706 5,345 44.2 BMK 1/10% HB & SB -/Aaa'-/- Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/Aaa'-/- Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/Aaa'-/- UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/Aaa'-/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/Aaa'-/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/Aaa'-/- Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB & SB -/Aaa'-/- Belgium Type Cover Pool (EURm) (EURm) (%) (S)BMK Risk weight Type (Firth / Moady's / SEP / DBNS Argenta Spaarbank NV M 2,455 2,000 22.8 BMK 1/10% SB -/-AAA'- Belfius Bank SA M 12,126 9,992 21.4 BMK 1/10% SB -/-AAA/- BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/-Aaa / AAA/- BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/-Aaa / AAA/- ING Belgium SA M 13,450 9,750 37.9 BMK 1/10% SB -/-Aaa / AAA/- KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA / Aaa / -/ KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA / Aaa / -/ Canada Type Cover Pool (EURm) (K) (S)BMK Risk weight Type (Firth / Moady's / SEP / DBNS Bank of Montreal M 28,478 19,082 49.2 BMK 2A / 20% SB AAA / Aaa / -/ AAA Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / -/ AAA Bank of Nova Scotia M 1,886 1,177 60.3 SBMK 2A / 20% SB AAA / Aaa / -/ AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / -/ AAA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / -/ AAA Federation des Caisses Desjardins du Quebec M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / -/ AAA Royal Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / -/ AAA Fortonto-Dominion Bank M 5628 495 27.0 BMK 1/10% SB AAA / -/ -/ AAA	Wien AG	Р	•			BMK	-		
Raiffeisen-Landesbank Tirol AG M 3,444 2,551 35.0 BMK / SBMK 1/10% HB & SB -/ Aaa / -			•				· .		**************************************
Raiffeisenverband Salzburg eGen M 17,135 9,473 80.9 BMK 1/10% HB & SB -/ Aaa /-/ UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1/10% HB & SB -/ Aaa /-/ Wolksbank Wien AG M 5,287 2,500 111.3 BMK 1/10% HB & SB -/ Aaa /-/ Aaa /-/ Aaa /-/ BMK 1/10% HB & SB -/ Aaa /-/ BMK 1/10% HB & SB -/ Aaa /-/ HB & SB -/ Aaa /-/ WHB & SB -/ A			· ·				=		
UniCredit Bank Austria AG M 17,135 9,473 80.9 BMK 1 / 10% HB & SB - / Aaa / - / - Volksbank Wien AG M 5,287 2,502 111.3 BMK 1 / 10% HB - / Aaa / - / - Aaa / - Aaa / - / - Aaa / - / - Aaa / - Aaa / - Aaa / - Aaa / Aaa / Aaa / Aaa / Aaa / Aaa / - Aaa / - Aaa /			· ·			-	-		
Volksbank Wien AG M 5,287 2,502 111.3 BMK 1/10% HB -/Aaa /-/- Belgium Type Cover Pool (EURm) Outst. Volume (EURm) OC (%) (S)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody/s / SSP / DBRS) Argenta Spaarbank NV M 2,455 2,000 22.8 BMK 1/10% SB -/-/AAA/- Belfius Bank SA P 1,686 1,211 39.2 BMK 1/10% SB AAA/-/AAA/- BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/ Aaa / AAA/- ING Belgium SA M 13,450 9,750 37.9 BMK 1/10% SB AAA / Aaa/-/- KEC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA / Aaa/-/- Canada Type Cover Pool (EURm) Outst. Volume (%) OC (S)BMK LCR level / Maturity Risk weight Type Covered Bond rating Fitch/ Moody/s / SSP / DBRS)	9		· ·				-		
Relgium			-				-		
Risk weight Type (EURm) (EURm) (%) (Volksbank Wien AG	М	5,287	2,502	111.3	BMK	1 / 10%	НВ	- / Aaa / - / -
Belfius Bank SA P 1,686 1,211 39.2 BMK 1/10% SB AAA/-/AAA/- BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/Aaa/AAA/- ING Belgium SA M 13,450 9,750 37.9 BMK 1/10% SB AAA/Aaa/-/ KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA/Aaa/-/ Canada Type Cover Pool (EURm) Cover Bond rating (Fitch / Moody's / \$8P / DBRS) AAA / Aaa / -/ AAA Bank of Nova Scotia M 29,647 21,972 34.9 BMK 2A/20% SB AAA / Aaa / -/ AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A/20% SB AAA / Aaa / -/ AAA Canadian Imperial Bank of Commerce M 10,353 7,878 31.4 BMK 2A/20% SB AAA / Aaa / -/ -/ AA Rederation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A/20% SB AAA / Aaa / -/ -/ AA National Bank of Canada M 15,517 9,135 69.9 BMK 2A/20% SB AAA / Aaa / -/ AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A/20% SB AAA / Aaa / -/ AAA Cover Pool (EURm) Cov	Belgium	Туре				(S)BMK	-	•	
P 1,686 1,211 39.2 BMK 1/10% SB -/Aaa/AAA/- BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/Aaa/AAA/- NGB Belgium SA M 13,450 9,750 37.9 BMK 1/10% SB AAA/Aaa/- KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA/Aaa/- Canada Type Cover Pool (EURm) CURM) CURM CURM CURM COVER BOND CEURM CURM COVER BOND CEURM COVER BOND CEURM CEURM COVER BOND CEURM	Argenta Spaarbank NV	М	2,455	2,000	22.8	вмк	1 / 10%	SB	-/-/AAA/-
BNP Paribas Fortis SA M 2,923 2,250 29.9 BMK 1/10% SB -/Aaa / AAA / - NG Belgium SA M 13,450 9,750 37.9 BMK 1/10% SB AAA / Aaa / -/ KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA / Aaa / -/ Canada Type Cover Pool (EURm) (EURm) Cover Pool (EURm) (S)BMK LCR level / Risk weight Type Covered Bond rating (Fitch / Moody's / SSP / DBRS) Bank of Montreal M 28,478 19,082 49.2 BMK 2A / 20% SB AAA / Aaa / -/ AAA Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / -/ AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / -/ - AAA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / -/ - AA National Bank of Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / -/ - AAA Royal Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Cacchia Type Cover Pool (EURm) Cover Bond rating (Fitch / Moody's / SSP / DBRS) Covered Bond rating (Fitch / Moody's / SSP / DBRS) Covered Bond rating (Fitch / Moody's / SSP / DBRS) Covered Bond rating (Fitch / Moody's / SSP / DBRS) Covered Bond rating (Fitch / Moody's / SSP / DBRS)	Dolfing Donk CA	M	12,126	9,992	21.4	BMK	1/10%	SB	AAA / - / AAA / -
NG Belgium SA	Bellius Balik SA	Р	1,686	1,211	39.2	BMK	1 / 10%	SB	- / Aaa / AAA / -
KBC Bank NV M 19,048 13,920 36.8 BMK 1/10% SB AAA / Aaa / - / - Canada Type Cover Pool (EURm) Outst. Volume (EURm) OC (%) (S)BMK LCR level / Risk weight Type Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Bank of Montreal M 28,478 19,082 49.2 BMK 2A / 20% SB AAA / Aaa / - / AAA Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / - / AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AAA / Aaa / - / - AA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - AA HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB	BNP Paribas Fortis SA	M	2,923	2,250	29.9	BMK	1 / 10%	SB	- / Aaa / AAA / -
Canada Type Cover Pool (EURm) Outst. Volume (EURm) OC (%) (s)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Bank of Montreal M 28,478 19,082 49.2 BMK 2A / 20% SB AAA / Aaa / - / AAA Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / - / AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AAA / Aaa / - / - AA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - AA HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / - / - AA National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20%	ING Belgium SA	M	13,450	9,750	37.9	BMK	1 / 10%	SB	AAA / Aaa / - / -
Type (EURm) (EURm) (%) (%) (S)BMK Risk weight Type (Fitch / Moody's / S&P / DBRS)	KBC Bank NV	М	19,048	13,920	36.8	BMK	1 / 10%	SB	AAA / Aaa / - / -
Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / - / AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / - / - Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AAA / Aaa / - / - AAA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / - / - National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / - AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Cecchia Type Cover Pool (EURm) (EURm) OC (S)BMK LCR level / Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	Canada	Туре				(S)BMK	•	-	
Bank of Nova Scotia M 55,183 37,616 46.7 BMK 2A / 20% SB AAA / Aaa / - / AAA Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / - / - Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AAA / Aaa / - / - AAA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / - / - National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / - AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Cecchia Type Cover Pool (EURm) (EURm) OC (S)BMK LCR level / Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	Bank of Montreal	М	28,478	19,082	49.2	ВМК	2A / 20%	SB	AAA / Aaa / - / AAA
Canadian Imperial Bank of Commerce M 29,647 21,972 34.9 BMK 2A / 20% SB AAA / Aaa / - / - Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AA / - / - / AA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / - / - National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Czechia Type Cover Pool (EURm) Outst. Volume (%) OC (S)BMK LCR level / Risk weight Maturity Type Covered Bond rating Ris	Bank of Nova Scotia		· ·	•			-		
Equitable Bank M 1,886 1,177 60.3 SBMK 2A / 20% SB AA / -/- / AA Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / -/- HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / -/- National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / -/ AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / -/ AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / -/ AAA Czechia Type Cover Pool (EURm) Outst. Volume (EURm) OC (S)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / -/ -/ -/ <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Federation des Caisses Desjardins du Quebec M 10,353 7,878 31.4 BMK 2A / 20% SB AAA / Aaa / - / - HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / - / - National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Cechia Type Cover Pool (EURm) (EURm) OC (S)BMK LCR level / Maturity Type (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	Equitable Bank		· ·	•			-		
HSBC Bank Canada M 5,020 2,718 84.7 BMK 2A / 20% SB AAA / Aaa / -/ - National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / -/ AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / -/ AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / -/ AAA Czechia Type Cover Pool (EURm) Outst. Volume (EURm) OC (S)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / -/ -/ -	Federation des Caisses Desjardins du Quebec		· ·	•			-		
National Bank of Canada M 15,517 9,135 69.9 BMK 2A / 20% SB AAA / Aaa / - / AAA Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Czechia Type Cover Pool (EURm) Outst. Volume (%) CS)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	HSBC Bank Canada								
Royal Bank of Canada M 76,458 47,959 59.4 BMK 2A / 20% SB AAA / Aaa / - / AAA Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Czechia Type Cover Pool (EURm) Outst. Volume (EURm) OC (S)BMK LCR level / Risk weight Maturity Type Covered Bond rating (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	National Bank of Canada						-		
Toronto-Dominion Bank M 55,883 25,663 117.8 BMK 2A / 20% SB AAA / Aaa / - / AAA Czechia Type Cover Pool (EURm) Outst. Volume (EURm) (S)BMK LCR level / Maturity Type (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	Royal Bank of Canada						-		
Czecnia Type (EURm) (EURm) (%) Risk weight Type (Fitch / Moody's / S&P / DBRS) Komercni Banka AS M 628 495 27.0 BMK 1 / 10% SB AAA / - / - / -	Toronto-Dominion Bank			•			-		
	Czechia	Туре				(S)BMK		•	
	Komercni Banka AS	М	628	495	27.0	ВМК	1 / 10%	SB	AAA / - / - / -
	UniCredit Bank Czech Republic & Slovakia AS						-		



Denmark	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(ѕ)вмк	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Danmarks Skibskredit A/S	М	1,150	928	24.0	вмк	2A / 20%	НВ	-/-/A/-
Danske Bank A/S	M	5,692	4,806	18.4	BMK	1/10%	SB	AAA / - / AAA / -
Jyske Realkredit A/S	М	44,801	42,064	6.5	BMK	1/10%	SB	- / - / AAA / -
Estonia	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
LHV Pank AS	М	464	350	32.7	SBMK	2A / 10%	SB	- / Aa1 / - / -
Luminor Bank AS/Estonia	M	3,095	1,750	76.9	ВМК	1 / 10%	SB	-/Aa1/-/-
Finland	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Aktia Bank Oyj	M	2,556	1,800	42.0	BMK	1 / 10%	SB	- / Aaa / - / -
Alandsbanken Abp	M	321	250	28.3	SBMK	2A / 10%	SB	-/-/AAA/-
Alandsbanken Abp Danske Mortgage Bank PLC	M M	1,175 3,955	950 3,500	23.7 13.0	SBMK BMK	2A / 10% 1 / 10%	SB SB	- / - / AAA / - - / Aaa / - / -
Daliske Mortgage Balik PLC	M	3,955 20,689	3,500 18,117	14.2	BMK	1 / 10%	ъв НВ	- / Aaa / - / - - / Aaa / - / -
Nordea Kiinnitysluottopankki Oyj	M	3,317	3,000	10.6	BMK	1/10%	SB	- / Aaa / - / -
Oma Saastopankki Oyj	M	2,470	1,900	30.0	BMK / SBMK	1/10%	SB	-/-/AAA/-
OR Mortgago Pank	M	2,479	2,250	10.2	BMK	1/10%	SB	- / Aaa / - / -
OP Mortgage Bank	M	14,993	12,915	16.1	BMK	1/10%	SB	- / Aaa / AAA / -
POP Asuntoluottopankki Oyj	M	334	250	33.4	SBMK	2A / 10%	SB	-/-/AAA/-
SP-Kiinnitysluottopankki Oyj	M	1,945	1,300	49.6	BMK / SBMK	1/10%	SB	-/-/AAA/-
	M	976 1.026	750 1 470	30.2 31.0	BMK SBMK	1/10%	SB SB	- / - / AAA / - - / - / AAA / -
Suomen Hypoteekkiyhdistys	M M	1,926 756	1,470 600	26.0	SBMK	2A / 10% 2A / 10%	SB SB	-/-/AAA/- -/-/AAA/-
					02			
France	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Arkea Home Loans SFH SA	М	13,166	850	26.2	BMK	- / 10%	SB	AAA / Aaa / - / -
Arkea Public Sector SCF SA	Р	3,234	500	25.0	BMK	1/10%	SB	- / Aaa / - / -
AXA Bank Europe SCF	M	11,720	500	26.7	BMK / SBMK	1 / 10%	SB	- / Aaa / - / -
AXA Home Loan SFH SA	M	4,313	3,750	15.0	BMK	1/10%	SB	AAA / - / AAA / -
BNP Paribas Home Loan SFH SA	M	41,500	32,841	26.4	BMK	1/10%	HB & SB	AAA / - / AAA / -
BPCE SFH SA Caisse de Refinancement de l'Habitat SA	M M	57,266 22,316	41,864 500	36.8 40.6	BMK BMK	1 / 10% 1 / 10%	HB & SB HB & SB	- / Aaa / AAA / - AAA / Aaa / - / -
Caisse Française de Financement Local	P	61,678	53,541	15.2	BMK	1/10%	HB	- / Aaa / AA+ / AAA
Cie de Financement Foncier SA	М	57,266	52,356	9.4	BMK	- / 10%	НВ	- / Aaa / AAA / -
Credit Agricole Home Loan SFH SA	M	54,528	35,358	54.2	BMK	1/10%	SB	AAA / Aaa / AAA / -
Credit Agricole Public Sector SCF SA	Р	7,110	4,500	58.0	BMK	1/10%	SB	- / Aaa / AAA / -
Credit Mutuel Home Loan SFH SA	M	41,634	500	50.3	BMK	1/10%	HB & SB	AAA / Aaa / AAA / -
HSBC SFH France SA	M	6,308	1,000	32.8	BMK	1/10%	HB & SB	- / Aaa / AAA / -
La Banque Postale Home Loan SFH SA	M M	26,639 2 127	500 1,000	31.8 19.3	BMK BMK	1/10%	HB & SB SB	- / - / AAA / - - / - / AAA / -
MMB SCF SACA Societe Generale SFH SA	M	3,137 57,170	46,990	21.7	BMK	1 / 10% 1 / 10%	HB & SB	AAA / Aaa / - / -
Germany	Туре	Cover Pool	Outst. Volume	ос	(S)BMK	LCR level /	Maturity	Covered Bond rating
Germany	Турс	(EURm)	(EURm)	(%)	(S)BIVIK	Risk weight	Type	(Fitch / Moody's / S&P / DBRS)
Aareal Bank AG	M	15,309	13,389	14.3	BMK	1/10%	SB	- / Aaa / - / -
Bausparkasse Schwaebisch Hall AG	M	4,760	3,034	56.9	BMK	1/10%	SB	- / Aaa / - / -
Bayerische Landesbank Bayerische Landesbank	M P	11,442 23,833	8,747 15.245	30.8	BMK	1 / 10% 1 / 10%	SB SB	- / Aaa / - / - - / Aaa / - / -
Berlin Hyp AG	M	23,833 18,394	15,345 17,453	55.3 5.4	BMK BMK	1 / 10%	SB	- / Aaa / - / - - / Aaa / - / -
Commerzbank AG	M	41,299	29,558	39.7	BMK	1/10%	SB	- / Aaa / - / -
Commerzbank AG	Р	15,193	9,241	64.4	BMK	1/10%	SB	- / Aaa / - / -
DekaBank Deutsche Girozentrale	M	1,294	651	98.8	SBMK	2A / 10%	SB	- / Aaa / - / -
DekaBank Deutsche Girozentrale	Р	4,223	3,294	28.2	SBMK	2A / 10%	SB	- / Aaa / - / -
Deutsche Apotheker-und Aerztebank eG	M	8,727	4,401	98.3	BMK	1/10%	SB	-/-/AAA/-
Deutsche Bank AG Deutsche Bank AG	M M	16,400 4,596	13,625 3,310	20.4 38.8	BMK BMK	1 / 10% Not eligible /	SB CPT	- / Aaa / - / - - / Aaa / - / AA
						20%		
Deutsche Kreditbank AG Deutsche Kreditbank AG	M P	5,506	4,502 2,887	22.3	BMK	1 / 10%	SB	- / Aaa / - / -
Deutsche Pfandbriefbank AG	M	6,983 19,230	2,887 15,120	141.9 27.2	BMK BMK	1 / 10% 1 / 10%	SB SB	- / Aaa / - / - - / Aa1 / - / -
Deutsche Pfandbriefbank AG	P	10,480	8,410	24.6	BMK	1 / 10%	SB	-/Aa1/-/-
DZ HYP AG	М	40,616	33,694	20.5	BMK	1/10%	SB	- / Aaa / AAA / -
DZ HYP AG	Р	12,106	9,606	26.0	BMK / SBMK	1/10%	SB	- / Aaa / AAA / -
Hamburg Commercial Bank AG	M	3,844	3,081	24.8	BMK	1 / 10%	SB	- / Aaa / - / -
Hamburg Commercial Bank AG	М	2,295	1,800	27.5	BMK	1/10%	SB	- / Aa3 / - / -
Hamburg Commercial Bank AG Hamburger Sparkasse AG	M M	2,295 8,244	1,800 6,548	27.5 25.9	BMK BMK	1 / 10% 1 / 10%	SB SB	- / Aa3 / - / - - / Aaa / - / -
Hamburg Commercial Bank AG	М	2,295	1,800	27.5	BMK	1/10%	SB	- / Aa3 / - / -

NORD/LB

Germany	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(ѕ)вмк	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Landesbank Baden-Wuerttemberg	M P	18,636	12,461	49.6	BMK	1 / 10%	SB SB	- / Aaa / - / - - / Aaa / - / -
Landesbank Berlin AG	M	13,071 5,935	10,292 3,801	27.0 56.1	BMK SBMK	1 / 10% 2A / 10%	SB	- / Aaa / - / - - / Aaa / - / -
Landesbank Hessen-Thueringen	M	16,624	10,608	56.7	BMK	1/10%	SB	- / Aaa / - / -
Girozentrale	P	32,850	22,081	48.8	BMK	1/10%	SB	AAA / Aaa / - / -
Landesbank Saar	Р	4,454	3,289	35.4	SBMK	2A / 10%	SB	AAA / - / - / -
Muenchener Hypothekenbank eG	M	36,474	33,461	9.0	BMK	1/10%	SB	- / Aaa / - / -
Natixis Pfandbriefbank AG	M	1,689	1,296	30.3	SBMK	2A / 10%	SB	- / Aaa / - / -
	M	13,329	9,144	45.8	BMK	1/10%	SB	-/Aa1/-/-
Norddeutsche Landesbank-Girozentrale	Р	13,489	11,618	16.1	BMK	1/10%	SB	-/Aa1/-/-
Oldenburgische Landesbank AG	M	1,316	1,061	24.1	SBMK	2A / 10%	SB	- / Aa1 / - / -
Santander Consumer Bank AG	M	1,228	1,025	19.8	BMK	1/10%	SB	AAA / Aaa / - / -
Sparkasse Hannover	M	2,809	1,878	49.6	SBMK	2A / 10%	SB	AAA / - / - / -
Sparkasse Haililovei	Р	1,372	566	142.4	SBMK	2B / 20%	SB	-/-/-/-
Sparkasse KoelnBonn	M	7,167	1,341	434.4	BMK	1 / 10%	SB	- / Aaa / - / -
Sparkasse Pforzheim Calw	M	2,803	2,343	19.6	BMK / SBMK	1 / 10%	SB	AAA / - / - / -
Stadtsparkasse Muenchen	M	1,361	715	90.3	SBMK	2A / 10%	SB	AA+ / - / - / -
UniCredit Bank AG	M	32,523	26,270	23.8	BMK	1 / 10%	SB	- / Aaa / - / -
	Р	7,114	4,195	69.6	BMK	1 / 10%	SB	- / Aaa / - / -
Wuestenrot Bausparkasse AG	M	3,630	2,989	21.5	BMK / SBMK	1 / 10%	SB	- / - / AAA / -
Iceland	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Arion Banki HF	M	2,617	2,140	22.3	BMK	2A / 20%	SB	-/-/A/-
Islandsbanki HF	M	3,156	2,448	28.9	SBMK	2A / 20%	SB	-/-/A/-
Landsbankinn HF	М	2,989	2,382	25.5	SBMK	2A / 20%	SB	-/-/A/-
Ireland	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Bank of Ireland Mortgage Bank	М	8,756	3,955	121.4	ВМК	1/10%	SB	- / Aaa / - / -
Italy	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Banca Monte dei Paschi di Siena SpA	М	11,588	8,200	41.3	вмк	1/10%	CPT	AA- / Aa3 / - / AA
Banca Popolare dell'Alto Adige SpA	М	438	300	46.1	SBMK	2A / 10%	SB	AA / - / - / -
Banco BPM SpA	M	7,984	4,000	99.6	BMK	1/10%	SB	- / Aa3 / - / -
Banco di Desio e della Brianza SpA	М	1,574	1,175	34.0	BMK	1/10%	SB	AA / - / - / -
BPER Banca	М	5,399	4,250	27.0	BMK	1/10%	SB	- / Aa3 / - / AA
Credit Agricole Italia SpA	M	15,685	12,000	30.7	BMK	1/10%	SB	- / Aa3 / - / -
Credito Emiliano SpA	M	4,411	2,100	110.0	BMK	1/10%	SB	AA / Aa3 / - / -
Iccrea Banca SpA	M	1,759	500	251.8	BMK	1/10%	SB	- / Aa3 / - / -
Intera Cannagla CnA	M	18,643	14,310	30.3	BMK	1 / 10%	SB	- / Aa3 / - / -
Intesa Sanpaolo SpA	M	8,638	6,450	33.9	BMK	1 / 10%	SB	-/Aa3/-/AA
Mediobanca Banca di Credito Finanziario SpA	M	7,399	5,250	40.9	BMK	1 / 10%	SB	AA / - / - / -
LiniCradit CnA	M	5,534	2,606	112.4	BMK	1 / 10%	SB	AA / Aa3 / AA- / -
UniCredit SpA	M	28,812	17,200	67.5	BMK	1/10%	SB	- / Aa3 / - / -
		Cover Pool	Outst. Volume	ос		LCR level /	Maturity	Caused Band rating
Japan	Type	(EURm)	(EURm)	(%)	(S)BMK	Risk weight	Туре	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Sumitomo Mitsui Banking Corp	М	8,480	4,676	81.4	вмк	Not eligible / 20%	SB	- / Aaa / - / -
Sumitomo Mitsui Trust Bank Ltd	М	2,729	2,063	32.3	вмк	Not eligible / 20%	SB	- / Aaa / - / -
Luxembourg	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
NORD/LB Luxembourg SA Covered Bond Bank	P P	3,300 332	2,605 300	26.7 10.7	BMK SBMK	1 / 20% 2A / 20%	HB HB	- / Aa2 / - / - - / Aa2 / - / -
Netherlands	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
ABN AMRO Bank NV	М	37,948	28,567	32.8	ВМК	1 / 10%	SB	AAA / Aaa / - / -
Achmea Bank NV	M	4,826	3,000	60.9	BMK	1/10%	SB	-/-/AAA/-
Aegon Rank NV	M	1,812	1,500	20.8	BMK	1/10%	CPT	-/-/AAA/-
Aegon Bank NV	M	1,177	1,000	17.7	вмк	1/10%	SB	-/-/AAA/-
Cooperatieve Rabobank UA	M	21,332	19,243	10.9	вмк	1/10%	SB	- / Aaa / - / -
de Volksbank NV	M	5,389	4,570	17.9	BMK	1/10%	SB	AAA / Aaa / - / -
ING Bank NV	M	25,311	20,316	24.6	BMK	1/10%	SB	AAA / Aaa / AAA / -
Nationale-Nederlanden Bank NV	M	7,742	5,595	38.4	BMK	1/10%	SB	-/-/AAA/-
NIBC Bank NV	M	4,267	3,500	21.9	BMK	1/10%	CPT	AAA / - / AAA / -
	M	1,469	1,000	46.9	BMK	1/10%	SB	-/-/AAA/-
Van Lanschot Kempen NV	M	702	500	40.4	BMK	1/10%	CPT	AAA / - / AAA / -
	M	1,393	1,000	39.3	BMK	1/10%	SB	- / - / AAA / -

NORD/LB

New Zealand	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
ANZ New Zealand Int'l Ltd/London ASB Bank Ltd Bank of New Zealand Westpac Securities NZ Ltd/London	M M M	6,282 2,879 3,476 3,578	2,760 2,091 2,872 2,872	127.6 37.7 21.0 24.6	BMK BMK BMK BMK	2A / 20% 2A / 20% 2A / 20% 2A / 20%	SB SB SB SB	AAA / Aaa / - / - AAA / Aaa / - / - AAA / Aaa / - / - AAA / Aaa / - / -
Norway	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
DNB Boligkreditt AS Eika Boligkreditt AS Moere Boligkreditt AS SpareBank 1 Boligkreditt AS Sparebanken Soer Boligkreditt AS Sparebanken Vest Boligkreditt AS SR-Boligkreditt AS	M M M M M	58,124 9,874 2,835 24,379 4,859 11,276 8,798	29,093 9,056 2,271 23,073 4,195 8,915 7,406	99.8 9.0 24.8 5.7 15.8 26.5 18.8	BMK BMK SBMK BMK BMK BMK BMK	1/10% 1/10% 2A/10% 1/10% 1/10% 1/10% 1/10%	SB SB SB SB SB SB	- / Aaa / AAA / - - / Aaa / - / -
Poland	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
mBank Hipoteczny SA PKO Bank Hipoteczny SA	M M	1,979 4,093	1,433 2,233	38.2 83.3	SBMK BMK	2A / 10% 1 / 10%	SB/CPT SB/CPT	- / Aa1 / - / - - / Aa1 / - / -
Portugal	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(ѕ)вмк	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Banco BPI SA Banco Santander Totta SA Caixa Economica Montepio Geral Caixa	M M M	8,734 10,262 2,768	7,000 8,600 2,300	24.8 19.3 20.3	BMK BMK BMK	1 / 10% 1 / 10% 1 / 10%	SB SB CPT	- / Aa2 / - / AA AA- / Aa2 / - / AA AA / Aa2 / - / -
Singapore	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
DBS Bank Ltd Oversea-Chinese Banking Corp Ltd United Overseas Bank Ltd	M M M	18,735 5,603 9,588	6,520 622 5,567	187.3 800.3 72.2	ВМК ВМК ВМК	2A / 20% 2A / 20% 2A / 20%	SB SB SB	AAA / Aaa / - / - AAA / Aaa / - / - - / Aaa / AAA / -
Slovakia	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Prima Banka Slovensko AS Slovenska Sporitelna AS Tatra Banka as Vseobecna Uverova Banka AS	M M M	3,760 5,530 2,879 4,573	2,500 3,651 2,388 4,132	50.4 51.5 20.5 10.7	BMK BMK / SBMK BMK / SBMK BMK	1 / 10% 1 / 10% 1 / 10% 1 / 10%	SB SB SB SB	- / Aaa / - / - - / Aaa / - / - - / Aaa / - / - - / Aa1 / - / -
South Korea	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(ѕ)вмк	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Hana Bank Kookmin Bank Korea Housing Finance Corp	M M M M M M M	2,048 3,527 492 527 966 527 1,021 574 783 3,330	1,080 1,425 452 465 903 470 945 524 567 1,967	89.6 147.5 8.9 13.2 6.9 12.2 8.0 9.7 38.0 69.3	BMK	2A / 20%	SB SB HB HB HB HB HB HB	AAA / - / AAA / - AAA / - / AAA / - - / Aa1 / - / - - / - / AAA / - - / Aaa / AAA / -
Spain	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	OC (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Abanca Corp Bancaria SA Banco Bilbao Vizcaya Argentaria SA Banco de Sabadell SA Banco Santander SA	M M M M	4,642 41,396 25,397 64,510 11,864	2,860 22,518 17,114 43,129 8,573	62.3 83.8 48.4 49.6 38.4	BMK BMK BMK BMK BMK	1 / 10% 1 / 10% 1 / 10% 1 / 10% 1 / 10%	HB HB & SB HB & SB HB & SB SB	-/Aa1/AA+/- -/Aa1/-/AAA -/Aa1/-/AAA AA/Aa1/-/- -/Aa1/-/-
Bankinter SA CaixaBank SA Caja Rural de Navarra SCC Cajamar Caja Rural SCC Deutsche Bank SA Espanola Eurocaja Rural SCC Ibercaja Banco SA Kutxabank SA Unicaja	M M M M M M	24,291 105,845 2,919 8,113 6,130 2,189 4,451 2,123 12,429	16,253 53,804 2,650 6,100 4,855 1,200 3,331 1,250 9,172	49.5 96.7 10.2 33.0 26.3 82.4 33.6 69.8 35.5	BMK BMK BMK BMK BMK BMK BMK BMK BMK	1/10% 1/10% 1/10% 1/10% 1/10% 1/10% 1/10% 1/10% 1/10%	HB & SB HB & SB SB HB HB HB HB	-/Aa1/-//Aa1/AA+/AAA -/Aa1/-//-Aa1/-//Aa1/-//Aa1/-/AAA -/Aa1/-/-

17 / Issuer Guide Covered Bonds



Sweden	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	oc (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Lansforsakringar Hypotek AB Skandinaviska Enskilda Banken AB Stadshypotek AB Sveriges Sakerstallda Obligationer AB	M M M M	24,905 59,989 5,739 55,622 38,425	18,957 31,292 5,217 50,107 29,226	31.4 91.7 10.0 11.0 31.5	BMK BMK BMK BMK BMK	1 / 10% 1 / 10% 1 / 10% 1 / 10% 1 / 10%	HB & SB HB & SB SB SB SB	- / Aaa / AAA / - - / Aaa / - / -
Swedbank Hypotek AB Switzerland	М Туре	93,006 Cover Pool (EURm)	30,605 Outst. Volume (EURm)	203.9 OC (%)	(S)BMK	1 / 10% LCR level / Risk weight	HB & SB Maturity Type	- / Aaa / AAA / - Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Credit Suisse Schweiz AG	М	14,269	12,730	14.5	ВМК	Not eligible / 20%	SB	AAA / - / - / -
United Kingdom	Туре	Cover Pool (EURm)	Outst. Volume (EURm)	oc (%)	(S)BMK	LCR level / Risk weight	Maturity Type	Covered Bond rating (Fitch / Moody's / S&P / DBRS)
Clydesdale Bank PLC	М	9,109	4,643	96.2	вмк	Not eligible / 20%	SB	AAA / Aaa / - / -
Coventry Building Society	М	8,451	5,534	52.7	ВМК	Not eligible / 20%	SB	AAA / Aaa / - / -
Leeds Building Society	М	3,799	2,603	45.9	вмк	Not eligible / 20%	SB	AAA / Aaa / - / -
Lloyds Bank PLC	М	30,285	20,106	50.6	вмк	Not eligible / 20%	SB	AAA / Aaa / - / -
National Westminster Bank PLC	М	11,660	2,318	403.0	вмк	Not eligible / 20%	SB	AAA / Aaa / - / -
Nationwide Building Society	M	23,006	14,932	54.1	ВМК	Not eligible / 20%	SB	AAA / Aaa / AAA / -
Santander UK PLC	M	28,239	17,535	61.0	ВМК	Not eligible / 20%	SB	AAA / Aaa / AAA / -
Skipton Building Society	М	4,184	2,248	86.1	ВМК	Not eligible / 20%	SB	AAA / Aaa / - / -
Yorkshire Building Society	М	9,105	5,296	71.9	ВМК	Not eligible / 20%	SB	AAA / Aaa / - / -

Source: Issuer, rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research;

Type: M= Mortgage, P = Public Sector, S = Ship, RE = Renewable Energy; Maturity Type: HB = Hard Bullet, SB = Soft Bullet, CPT = Conditional pass-through LCR level: - = not eligible



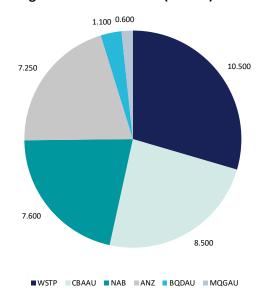
Market Overview Covered Bonds

Australia *******

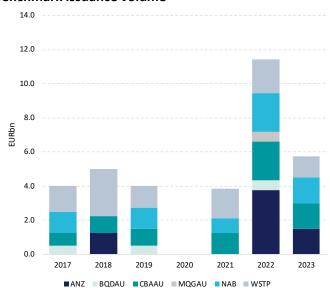
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 80.33bn	Outstanding volume (Bmk)	EUR 35.55bn
Amount outstanding	EUR 62.47bn	Number of benchmarks	34
Number of issuer	6	Outstanding ESG volume (Bmk)	-
No of cover pools	6	Number of ESG benchmarks	-
there of M / PS / others	6/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 2A	Maturity types	SB, CPT

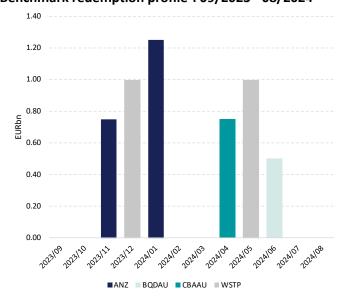
Outstanding benchmark volume¹ (EURbn)



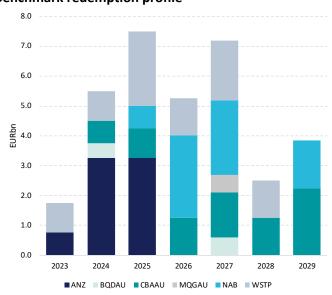
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



ANZ Group Holdings

Australia 🍍



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Australia and New Zealand Banking Group

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	AA-	Stable

Homepage

www.anz.com

The Australia and New Zealand Banking Group (ANZ) is a wholly owned subsidiary of ANZ Group Holdings Limited (ANZGHL). ANZGHL, which operates as a non-operational Holding Company, was established in January 2023 as part of the change to the Group structure that was agreed in December 2022. As the main operating entity within the Holding Company, ANZ has a geographical focus on the Australian, New Zealand and Asia-Pacific markets. It is the fourth largest bank in Australia and conducts business with approximately 8.5 million customers in 32 countries. ANZ offers its retail and business customers a wide range of traditional banking, financial products and services with a focus on real estate financing and commercial loans. ANZ reports across the following six segments: Australia Retail, Australia Commercial, Institutional, New Zealand as well as Pacific and Group Centre. Approximately 64% of the operating revenue is attributable to Australia, with New Zealand and international business accounting for 23% and 13% respectively. In Australia, ANZ has a market share of 13.0% for real estate financing, 17.8% for credit cards and 12.1% for deposits from retail customers (FY 2022). The bank's New Zealand branch, ANZ Bank New Zealand, is the largest institution in terms of mortgage loans with a market share of 31%. In July 2022, ANZ announced the acquisition of the Australian Suncorp Bank (purchase price: AUD 4.9bn, transaction set to be completed in H2 2023). The financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	393,540	441,773	425,908
Total Securities	104,085	138,998	110,597
Total Deposits	394,522	429,995	427,812
Tier 1 Common Capital	32,097	36,708	35,414
Total Assets	611,732	713,327	685,810
Total Risk-weighted Assets	260,031	298,751	268,790

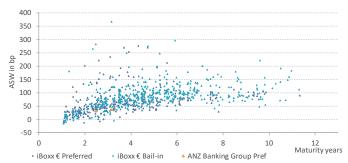
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	8,909	9,790	5,445
Net Fee & Commission Inc.	1,348	1,298	601
Net Trading Income	863	1,312	378
Operating Expense	5,693	6,303	3,200
Credit Commit. Impairment	-357	-153	85
Pre-tay Profit	5 622	6 634	3 207

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.64	1.63	1.75	Liquidity Coverage Ratio	135.76	128.73	129.62
ROAE	9.86	10.95	10.47	IFRS Tier 1 Leverage Ratio	5.47	5.61	5.41
Cost-to-Income	51.95	49.76	49.28	Gr. Imp. Loans/Loans at Am. Costs	0.30	0.21	0.18
Core Tier 1 Ratio	12.34	12.29	13.18	Reserves/Loans at Amort. Cost	0.64	0.53	0.54

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Funding
- Loss absorption reserves

- House price development
- Private household debt level
- Dependency on wholesale funding



ANZ Banking Group - Mortgage

Australia ***

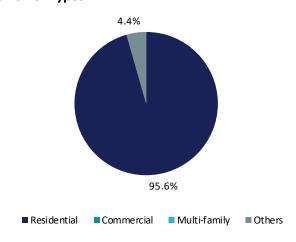


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

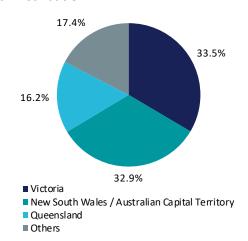
Cover Pool Data

Cover pool volume (EURm)	10,894	Rating (Moody's)	Aaa
Amount outstanding (EURm)	8,147	Rating (S&P)	-
-thereof ≥ EUR 500m	79.8%	Rating (Fitch)	AAA
Current OC (nominal)	33.7%	Rating (DBRS)	-
Committed OC	10.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Australia	Collateral score	4.0%
Main region	34% Victoria	RRL	-
Number of loans	60,870	JRL	-
Number of borrowers	51,183	Unused notches	-
Avg. exposure to borrowers (EUR)	203,433	AAA credit risk (%)	-
WAL (cover pool)	15.8y	PCU	6
WAL (covered bonds)	2.2y	Recovery uplift	1
Fixed interest (cover pool)	22.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	58.2%	LCR level (Bmk)	2A
LTV (unindexed)	59.6%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

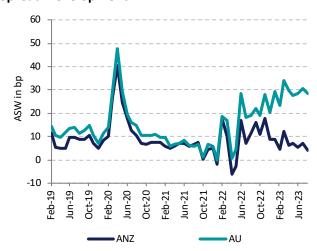
Borrower Types



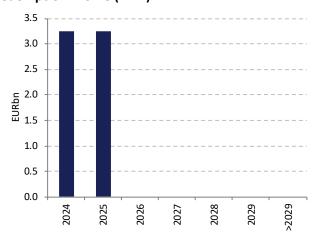
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bank of Queensland

Australia 🍍



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank of Queensland Ltd.

	Rating	Outlook
Fitch	A-	Stable
Moody's	A3	Stable
S&P	BBB+	Positive

Homepage

www.boq.com.au

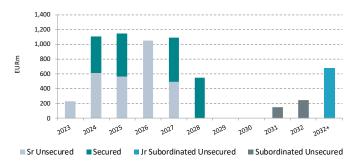
Bank of Queensland (BOQ) is a leading regional bank which does not form part of any of the major Australian banks. It is listed on the Australian Securities Exchange (ASX) and has a network of 154 branches in Australia. As a universal bank which employs around 3,300 members of staff (FY 2022), BOQ serves both retail and corporate customers, offering traditional banking products such as deposits, mortgage and business loans. The business model is rounded off by niche products in the form of asset and resource funding. The integration process of the direct bank Members Equity Bank (ME), which was acquired in 2021, was concluded in 2022. BOQ was able to increase cost synergies, achieve savings in the area of financing and find synergies in investment expenditure. The acquisition has returned ME Bank's loan portfolio to a growth path. The sale of St. Andrew's Insurance has been concluded (October 2021). Furthermore, BOQ specialises in various niche segments such as the medical and dental segments, corporate healthcare, pensions, the hospitality industry as well as the tourism and agricultural sectors. The bank's geographical focus is firmly fixed on its home region of Queensland as well as New South Wales, with 31% and 30% (FY 2022) of the loan portfolio attributable to each of these regions respectively. The institution is divided into the operating segments Retail Banking (incl. Virgin Money and ME Bank), BOQ Business and Other. Funding largely consists of customer deposits (66%) and short-term and long-term wholesale funding (13% and 21% respectively). BOQ's financial year ends on 31 August each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	46,698	55,183	51,734
Total Securities	6,768	9,807	12,293
Total Deposits	40,601	48,182	48,246
Tier 1 Common Capital	2,683	2,979	2,795
Total Assets	56,603	68,118	67,008
Total Risk-weighted Assets	27,379	31,131	26,093

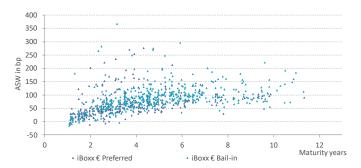
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	709	1,007	545
Net Fee & Commission Inc.	52	61	34
Net Trading Income	6	6	5
Operating Expense	460	673	504
Credit Commit, Impairment	-13	-1	20
Pre-tax Profit	338	409	65

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.37	1.75	1.67	Liquidity Coverage Ratio	149.12	135.68	151.49
ROAE	7.08	6.61	0.12	IFRS Tier 1 Leverage Ratio	4.84	4.46	4.24
Cost-to-Income	58.61	61.32	85.57	Gr. Imp. Loans/Loans at Am. Costs	-	-	-
Core Tier 1 Ratio	9.80	9.57	10.71	Reserves/Loans at Amort. Cost	0.41	0.36	0.38

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Liquidity position
- Funding profile (deposit basis)

- Possible declining asset quality → interest rate increase
- Pressure on profitability (costs ↑, credit growth ↓)
- Market positioning in Australia



Bank of Queensland - Mortgage

Australia ******:

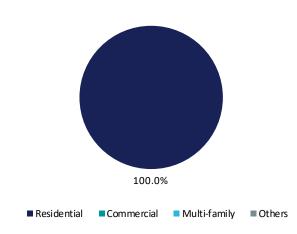


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

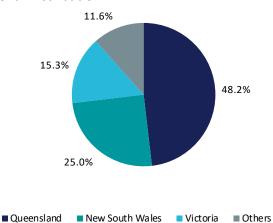
Cover Pool Data

3,260	Rating (Moody's)	Aaa
1,620	Rating (S&P)	-
67.9%	Rating (Fitch)	AAA
101.2%	Rating (DBRS)	-
10.0%	TPI	TPI-delinked
Mortgage	TPI leeway	Not Applicable
100% Australia	Collateral score	4.0%
48% Queensland	RRL	-
18,569	JRL	-
n/a	Unused notches	-
n/a	AAA credit risk (%)	-
15.0y	PCU	8
2.5y	Recovery uplift	2
12.8%	Outstanding ESG BMKs	No
64.2%	LCR eligible	Yes
49.4%	LCR level (Bmk)	2A
55.1%	Risk weight	20%
0.0%	Maturity structure (Bmk)	CPT
	1,620 67.9% 101.2% 10.0% Mortgage 100% Australia 48% Queensland 18,569 n/a n/a 15.0y 2.5y 12.8% 64.2% 49.4% 55.1%	1,620 Rating (S&P) 67.9% Rating (Fitch) 101.2% Rating (DBRS) 10.0% TPI Mortgage TPI leeway 100% Australia Collateral score 48% Queensland RRL 18,569 JRL n/a Unused notches n/a AAA credit risk (%) 15.0y PCU 2.5y Recovery uplift 12.8% Outstanding ESG BMKs 64.2% LCR eligible 49.4% LCR level (Bmk) 55.1% Risk weight

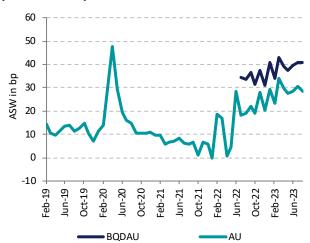
Borrower Types



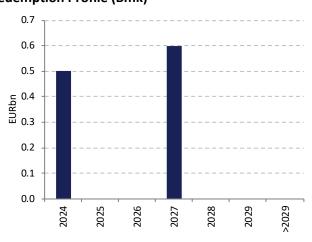
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Commonwealth Bank of Australia

Australia 🍍



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Commonwealth Bank of **Australia**

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	AA-	Stable

Homepage

www.commbank.com.au

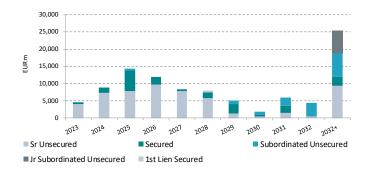
The Commonwealth Bank of Australia (CBA) is the largest banking group in Australia in terms of assets and is categorised as a D-SIB by the Australian Prudential Regulation Authority (APRA), which is the country's financial regulatory authority. Its shares are listed on the Sydney Stock Exchange (ASX). The three largest shareholders are BlackRock (21. April 2023: 5.9%), The Vanguard Group (5.2%) and State Street Corp. (4.8%). The Sydney-based institution offers the full spectrum of universal bank services to more than 16.6 million customers. CBA's activities are primarily concentrated on the domestic market of Australia, although it also maintains a presence in New Zealand and other jurisdictions. According to its own information, in Australia CBA serves its customers through more than 750 branches (H1 2023) and 3,526 agencies (FY 2022). The bank reports across the following segments: Retail Banking Services, Business Banking, Institutional Banking & Markets, New Zealand as well as Corporate Centre and Other. The largest business segments as measured by operating income are Retail Banking at around 47% (H1 2023) and Business Banking at 33%. In Australia, CBA has a market share of 25.1% for mortgage loans and 26.9% for retail deposits (H1 2023). A total of 75% of the funding mix consists of retail funding (H1 2023) and 25% of wholesale funding. A total of 51% of the funding mix is attributable to long-term wholesale funding (of which 17% is covered bonds). In 2022, the Commonwealth Bank of Australia joined the Net-Zero Banking Alliance, which is pursuing the goal of becoming carbon neutral by 2050. The financial year ends on 30 June each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	513,044	579,242	576,393
Total Securities	96,098	95,622	87,341
Total Deposits	472,389	543,366	538,419
Tier 1 Common Capital	37,223	37,583	36,601
Total Assets	690,487	800,963	783,790
Total Risk-weighted Assets	284,978	328,155	320,770

2022Y 2023H1 (EURm) 2021Y 12,086 12,545 7,694 Net Interest Income Net Fee & Commission Inc. 1,642 1,629 **Net Trading Income** 572 792

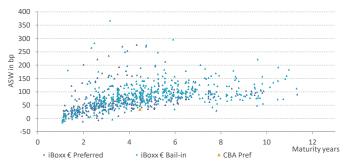
562 7,076 **Operating Expense** 6,623 3,637 Credit Commit, Impairment 347 -230 338 Pre-tax Profit 7,749 8,816 4,922

Redemption Profile



Senior Unsecured Bonds

Income Statement



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.08	1.90	2.12	Liquidity Coverage Ratio	129.06	129.51	131.19
ROAE	13.52	14.22	14.16	IFRS Tier 1 Leverage Ratio	5.52	4.86	4.83
Cost-to-Income	44.74	44.85	40.22	Gr. Imp. Loans/Loans at Am. Costs	0.41	0.33	0.33
Core Tier 1 Ratio	13.06	11.45	11.41	Reserves/Loans at Amort. Cost	0.75	0.59	0.59

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Reserves for potential credit defaults
- Franchise in AU and NZ
- Capitalisation

- Private household debt level (AU, NZ)
- Risk from falling house prices (AU, NZ)
- Dependency on wholesale funding



Commonwealth Bank of Australia – Mortgage

Australia *******:

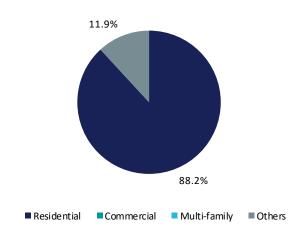


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

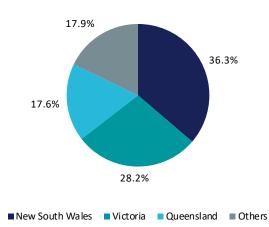
Cover Pool Data

Cover pool volume (EURm)	21,648	Rating (Moody's)	Aaa
Amount outstanding (EURm)	18,270	Rating (S&P)	-
-thereof ≥ EUR 500m	46.5%	Rating (Fitch)	AAA
Current OC (nominal)	18.5%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Australia	Collateral score	4.0%
Main region	36% New South Wales	RRL	-
Number of loans	144,534	JRL	-
Number of borrowers	118,416	Unused notches	-
Avg. exposure to borrowers (EUR)	161,152	AAA credit risk (%)	-
WAL (cover pool)	28.7y	PCU	6
WAL (covered bonds)	5.2y	Recovery uplift	1
Fixed interest (cover pool)	31.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	91.2%	LCR eligible	Yes
LTV (indexed)	50.1%	LCR level (Bmk)	2A
LTV (unindexed)	55.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

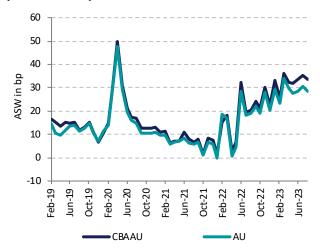
Borrower Types



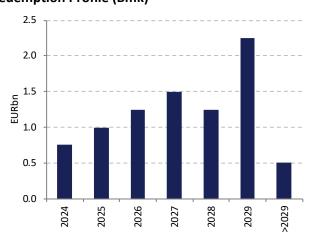
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Macquarie Group

Australia 🍍



4,597

4,161

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Macquarie Group Ltd.

	Rating	Outlook
Fitch	Α	Stable
Moody's	A2	Stable
S&P	BBB+	Stable

Homepage

www.macquarie.com

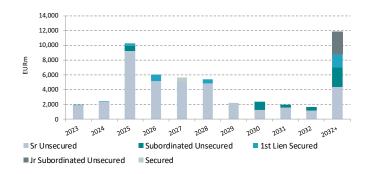
Macquarie Bank Limited (MBL, total assets FY 2023: AUD 330.8bn) is responsible for the banking activities of the Macquarie Group (MGL, AUD 387.9bn), which is listed on the Sydney stock exchange. MBL is active in worldwide regions in addition to the Australian domestic market (March 2022: market share for deposits 4.8%; mortgage loans 5.0%). Measured by net income (excl. capital income and other corporate costs), the largest portion of income is attributable to North and Latin America (FY 2023: 38%), followed by Australia and New Zealand (29%), EMEA (25%) and Asia (8%). The Group reports across the following four operating segments: Banking and Financial Services (BFS, FY 2023: 12% of net profit), Commodities and Global Markets (CGM, 57%), Macquarie Asset Management (MAM, 23%), Macquarie Capital (MCC, 8%) and the non-operating business segment Central Service Group (CSG). The BFS segment comprises the areas personal banking, asset management and business banking products. In the CGM segment, the bank offers its customers worldwide solutions in the areas of commodities, financial markets, financing and risk management. The CSG segment includes all activities not covered by the operating business areas, including internal risk management. A total of 65% of the mortgage portfolio was loaned for owner-occupied properties (FY 2023). MGL plays an active role in financing green finance projects and is aiming to become carbon neutral by 2050 (interim target 2025: carbon neutral for own activities in Scope 1 and 2). More than 40% of funding for MGL consists of customer deposits (FY 2023). Its financial year ends on 31 March each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Y
Net Loans to Customers	68,104	91,002	97,867
Total Securities	33,690	74,693	46,208
Total Deposits	54,599	68,663	83,143
Tier 1 Common Capital	7,678	10,114	10,529
Total Assets	159,294	269,591	239,387
Total Risk-weighted Assets	60,954	88,230	77,133

Income Statement			
(EURm)	2021Y	2022Y	2023Y
Net Interest Income	1,351	1,820	1,991
Net Fee & Commission Inc.	2,646	3,728	3,636
Net Trading Income	2,279	2,701	4,873
Operating Expense	5,221	6,431	7,607
Credit Commit. Impairment	208	89	219

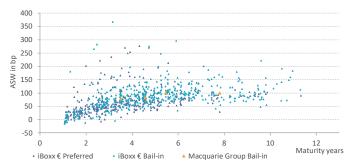
2,405

Redemption Profile



Senior Unsecured Bonds

Pre-tax Profit



Company Ratios

	2021Y	2022Y	2023Y		2021Y	2022Y	2023Y
Net Interest Margin	1.03	1.02	0.89	Liquidity Coverage Ratio	-	-	-
ROAE	13.63	19.36	16.43	IFRS Tier 1 Leverage Ratio	5.25	4.82	4.86
Cost-to-Income	65.73	58.91	61.07	Gr. Imp. Loans/Loans at Am. Costs	1.92	1.22	1.28
Core Tier 1 Ratio	12.60	11.46	13.65	Reserves/Loans at Amort. Cost	1.07	0.76	0.83

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Diversified business
- Capitalisation
- Increase in profitability

- Dependency on wholesale funding
- Increasing income volatility (capital market business)
- Operational diversity results in complex operations



Macquarie Bank – Mortgage

Australia ******:

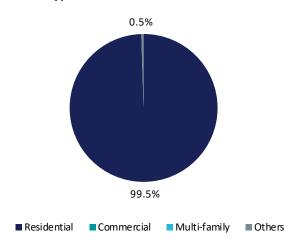


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

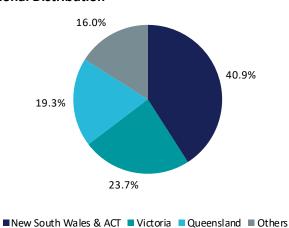
Cover Pool Data

Cover pool volume (EURm)	1,328	Rating (Moody's)	Aaa
Amount outstanding (EURm)	540	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	146.0%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Australia	Collateral score	5.8%
Main region	41% New South Wales & ACT	RRL	-
Number of loans	10,302	JRL	-
Number of borrowers	7,223	Unused notches	-
Avg. exposure to borrowers (EUR) 182,883	AAA credit risk (%)	-
WAL (cover pool)	22.3y	PCU	6
WAL (covered bonds)	4.3y	Recovery uplift	1
Fixed interest (cover pool)	14.0%	Outstanding ESG BMKs	No
Fixed interest (covered bond	s) 100.0%	LCR eligible	Yes
LTV (indexed)	45.6%	LCR level (Bmk)	2A
LTV (unindexed)	56.5%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

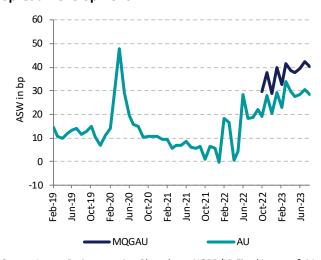
Borrower Types



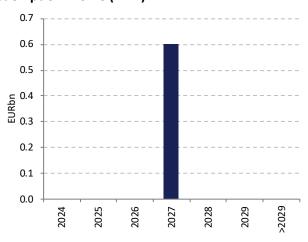
Regional Distribution



Spread Development



Redemption Profile (Bmk)





National Australia Bank

Australia 🍍



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

National Australia Bank Ltd.

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	AA-	Stable

Homepage

www.nab.com.au

National Australia Bank (NAB) is the third largest bank in Australia measured in terms of assets. More than 35,000 employees serve over 8.5 million customers across 714 branches (FY 2022). The Australian Prudential Regulation Authority classifies NAB as a domestic k systemically important bank (D-SIB). The main shareholders are the Vanguard Group (25 April 2023: 5.3%) and State Street (5.2%). NAB is particularly active in the areas of corporate loans for SMEs in Australia (August 2022 market share: 27%) and agricultural businesses (34%). In fact, NAB is the largest lender to agricultural businesses in Australia. Despite its strong presence in these markets, it is mortgage loans account for the principal share of its assets at 42% (FY 2022). Group operations are split across the following segments: Business & Private Banking, Personal Banking, Corporate & Institutional Banking and New Zealand Banking, in addition to the Corporate Functions and Other segment. The geographical focus on Australia and New Zealand is reflected in the distribution of the loan portfolio with a share of 84% and 13% respectively (FY 2022). NAB is a member of the Net-Zero Banking Alliance, which is aiming to become carbon neutral by 2050. To this end, environmental funding up to 2025 was set to amount to AUD 70bn. However, this target had already been exceeded by AUD 800m as at financial year 2022. The acquisition of the consumer business Citigroup Australia was concluded on 01 June 2022, while the sale of BNZ-Life, the life insurance business owned by the New Zealand subsidiary of BNZ, was completed on 30 September 2022. Covered bonds account for 19% of wholesale funding. The financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	389,786	448,280	429,765
Total Securities	81,728	104,952	-
Total Deposits	342,330	405,176	389,795
Tier 1 Common Capital	33,893	34,017	32,868
Total Assets	578,680	693,221	646,982
Total Risk-weighted Assets	260,704	295,597	269,197

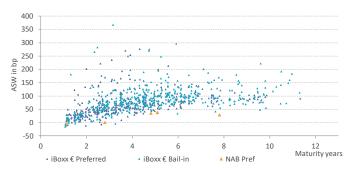
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	8,677	9,767	5,427
Net Fee & Commission Inc.	1,284	1,366	701
Net Trading Income	383	702	565
Operating Expense	4,907	5,692	2,923
Credit Commit. Impairment	-127	82	262
Pro-tay Profit	5 705	6 413	3 576

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.71	1.65	1.77	Liquidity Coverage Ratio	127.91	136.72	130.49
ROAE	10.26	11.31	13.17	IFRS Tier 1 Leverage Ratio	6.04	5.21	5.27
Cost-to-Income	46.76	46.68	43.23	Gr. Imp. Loans/Loans at Am. Costs	1.17	0.96	0.97
Core Tier 1 Ratio	13.00	11.51	12.21	Reserves/Loans at Amort. Cost	0.83	0.74	0.77

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in AU and NZ
- Funding
- Capitalisation

- Dependency on wholesale funding
- Private household debt level
- Asset quality could decrease (interest rate 个, inflation)



National Australia Bank – Mortgage

Australia *******

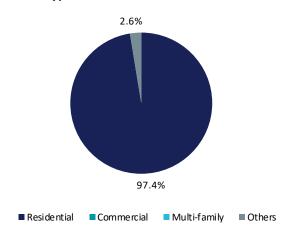


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

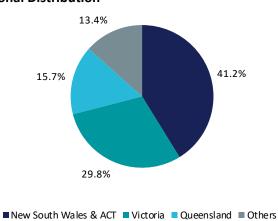
Cover Pool Data

Cover pool volume (EURm)	19,419	Rating (Moody's)	Aaa
Amount outstanding (EURm)	14,362	Rating (S&P)	-
-thereof ≥ EUR 500m	52.9%	Rating (Fitch)	AAA
Current OC (nominal)	35.2%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Australia	Collateral score	4.0%
Main region	41% New South Wales & ACT	RRL	-
Number of loans	103,519	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR) n/a	AAA credit risk (%)	-
WAL (cover pool)	24.1y	PCU	6
WAL (covered bonds)	3.1y	Recovery uplift	1
Fixed interest (cover pool)	26.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds	79.8%	LCR eligible	Yes
LTV (indexed)	53.3%	LCR level (Bmk)	2A
LTV (unindexed)	55.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

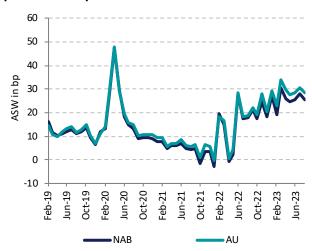
Borrower Types



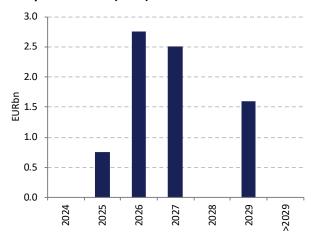
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Westpac Banking Corporation

Australia 🍍



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Westpac Banking Corp

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	AA-	Stable

Homepage

www.westpac.com.au

Westpac Banking Corporation (headquarters in Sydney) is Australia's oldest bank and operates chiefly in Australia and New Zealand. It is the fourth largest banking group in Australia as measured by assets and is classified as a domestic systemically important bank (D-SIB) by the Australian Financial Regulatory Authority (APRA). Westpac is listed on the ASX in Australia and the NZX in New Zealand. BlackRock and the Vanguard Group hold around 6.3% and 5.3% of the shares respectively (25 April 2023). The universal bank has more than 37,000 employees serving 12.7 million customers (FY 2022) through 877 branches. The focus of the Westpac Banking Corporation is on business and retail customers as well as institutional investors. The bank's activities are divided into four operating core segments: Consumer and Business Bank, Westpac Institutional Bank, Westpac New Zealand plus Group Businesses and Specialist Business (downsizing segments). Westpac reported market shares of 20% for retail customer deposits and 21% for mortgage loans on the domestic market as of FY 2022. In New Zealand, the market share for deposits and consumer loans accounts for 18% each. Westpac's strategy is focussed on the Australian and New Zealand market, and includes further streamlining of its business activities. For example, Motor Vehicle Finance, Westpac NZ Life Insurance and Westpac Life Insurance Services were sold in 2022, with the sale of Westpac's Advance Asset Management also announced in the same year. In July 2022, the Westpac Banking Corporation joined the Net-Zero Banking Alliance. Westpac's financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	443,576	485,950	462,842
Total Securities	79,626	95,003	76,760
Total Deposits	391,813	433,050	417,431
Tier 1 Common Capital	33,627	35,441	34,342
Total Assets	584,872	666,331	628,973
Total Risk-weighted Assets	272,883	313,798	279,549

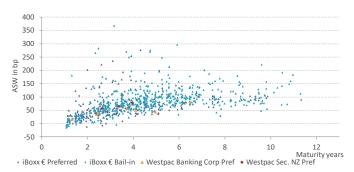
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	10,605	11,295	5,835
Net Fee & Commission Inc.	932	1,100	530
Net Trading Income	862	451	266
Operating Expense	8,069	7,037	3,194
Credit Commit. Impairment	-357	219	249
Pro-tay Profit	5 348	5 574	3 602

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.06	1.93	1.95	Liquidity Coverage Ratio	129.42	131.53	135.49
ROAE	7.80	7.99	11.19	IFRS Tier 1 Leverage Ratio	5.93	5.59	5.63
Cost-to-Income	60.56	54.60	45.34	NPL/Loans at Amortised Cost	1.34	0.98	1.04
Core Tier 1 Ratio	12.32	11.29	12.28	Reserves/Loans at Amort. Cost	0.64	0.57	0.59

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Market position (retail & business customers AU, NZ)
- Capitalisation
- Profitability

- Dependency on wholesale funding
- Property market (AU, NZ): risks of a price correction
- Private household debt



Westpac Banking Corporation – Mortgage

Australia *******



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

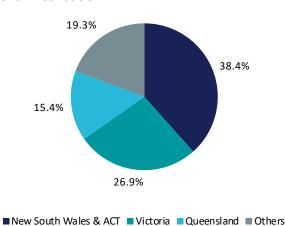
Cover Pool Data

Cover pool volume (EURm)	23,783	Rating (Moody's)	Aaa
Amount outstanding (EURm)	19,531	Rating (S&P)	-
-thereof ≥ EUR 500m	48.6%	Rating (Fitch)	AAA
Current OC (nominal)	21.8%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Australia	Collateral score	4.0%
Main region	38% New South Wales & ACT	RRL	-
Number of loans	118,731	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR) n/a	AAA credit risk (%)	-
WAL (cover pool)	24.9y	PCU	6
WAL (covered bonds)	4.1y	Recovery uplift	1
Fixed interest (cover pool)	49.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds	88.2%	LCR eligible	Yes
LTV (indexed)	51.7%	LCR level (Bmk)	2A
LTV (unindexed)	57.3%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

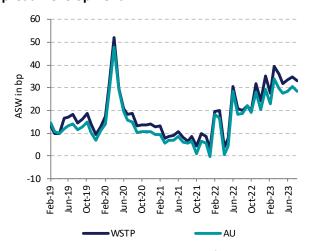
Borrower Types

12.7% 87.3% ■ Residential Commercial Multi-family

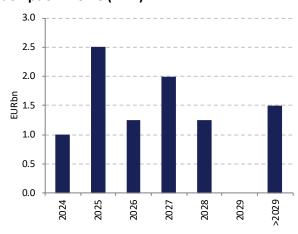
Regional Distribution



Spread Development



Redemption Profile (Bmk)





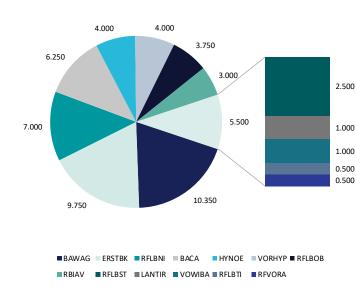
Market Overview Covered Bonds

Austria =

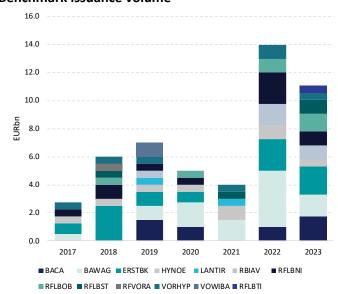
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 130.77bn	Outstanding volume (Bmk)	EUR 53.60bn
Amount outstanding	EUR 95.79bn	Number of benchmarks	91
Number of issuer	19	Outstanding ESG volume (Bmk)	EUR 2.25bn
No of cover pools	22	Number of ESG benchmarks	4
there of M / PS / others	18/4/0	Outstanding volume (SBmk)	EUR 7.68bn
Ratings (low / high)	A+ / AAA	Number of subbenchmarks	27
Best possible LCR level	Level 1	Maturity types	HB, SB

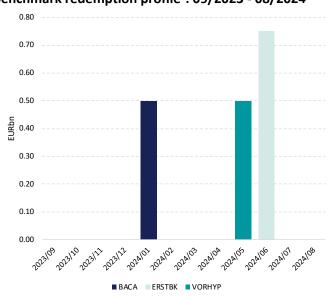
Outstanding benchmark volume¹ (EURbn)



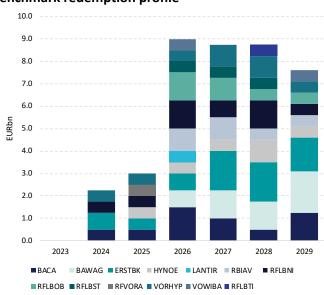
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Bank für Tirol und Vorarlberg

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank für Tirol und Vorarlberg AG

	Rating	Outloo
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.btv.at

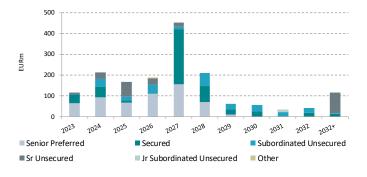
Bank für Tirol und Vorarlberg AG (BTV), which was founded in 1904, has been listed on the Vienna stock exchange since 1986. The largest shareholders in BTV are CABO Beteiligungsgesellschaft (37.5%) and Oberbank AG (17.2%) as at 31 December 2022. With the conclusion of the syndicate agreement in 1952, the foundations of the 3 Banken Gruppe (3BG) comprising BTV, Oberbank and BKS Bank were laid. In 2011, BTV re-branded as BTV Vier Länder Bank. Corporate and retail customers, who are the focus of the business strategy, are offered a wide range of products in the areas of financing and hedging, investments, payment transactions, as well as pension and insurance products. BTV reports across the following business segments: Corporate Customers, Retail Customers, Financial Markets, Leasing and Cable Cars, in addition to Other Segments/Consolidation/ Miscellaneous. The Corporate Customers segment plays a key role, contributing 85.4% of the pre-tax profit (FY 2022). In the breakdown of credit risk by country, Austria and Germany are the most strongly represented with shares of 51.3% and 32.4%, respectively, followed by Switzerland at 7.5% (FY 2022). Geographically, the focus is on the regions of Tyrol, Vorarlberg, Vienna, southern Germany and German-speaking Switzerland. Customer deposits (72.7%; FY 2022) account for the largest share of the funding mix, followed by bonds and subordinated capital (11.3%) and promotional banks (8.1%). In addition, a capital increase of EUR 101m was successfully implemented at the end of 2022. In May 2023, BTV issued its inaugural covered bond. The deal was worth EUR 250m, meaning that BTV was active in the EUR sub-benchmark segment.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	8,081	8,452	8,493
Total Securities	1,606	1,409	1,400
Total Deposits	8,030	8,435	8,289
Tier 1 Common Capital	1,119	1,278	1,220
Total Assets	14,265	14,098	14,073
Total Risk-weighted Assets	8,214	8,739	8,865

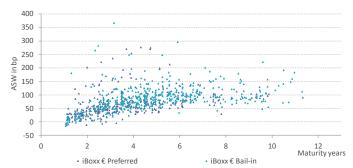
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	137	178	61
Net Fee & Commission Inc.	55	57	14
Net Trading Income	4	-2	1
Operating Expense	183	218	52
Credit Commit, Impairment	22	25	-2
Pro-tay Profit	92	104	88

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.08	1.41	1.94	Liquidity Coverage Ratio	204.43	191.93	-
ROAE	4.44	4.25	14.01	IFRS Tier 1 Leverage Ratio	7.86	9.11	8.71
Cost-to-Income	61.42	62.68	37.39	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	13.62	14.63	13.77	Reserves/Loans at Amort. Cost	1.49	1.57	1.55

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Diversified loan portfolio
- Earnings situation

- Dependency on customer deposits
- Economic downturn (AT)



Bank für Tirol und Vorarlberg – Mortgage

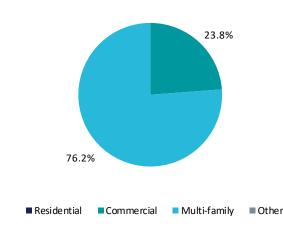
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

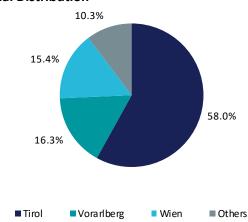
Cover Pool Data

Cover pool volume (EURm)	777	Rating (Moody's)	-
Amount outstanding (EURm)	530	Rating (S&P)	AAA
-thereof ≥ EUR 250m	47.2%	Rating (Fitch)	-
Current OC (nominal)	46.6%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	96% Austria	Collateral score	-
Main region	58% Tirol	RRL	a
Number of loans	4,160	JRL	aa
Number of borrowers	3,256	Unused notches	1
Avg. exposure to borrowers (EUR)	238,636	AAA credit risk (%)	16.7%
WAL (cover pool)	16.0y	PCU	-
WAL (covered bonds)	4.1y	Recovery uplift	-
Fixed interest (cover pool)	23.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	91.0%	LCR eligible	Yes
LTV (indexed)	40.6%	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	НВ

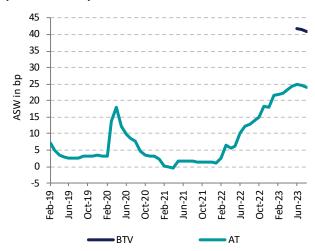
Borrower Types



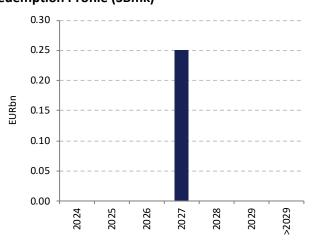
Regional Distribution



Spread Development



Redemption Profile (SBmk)





BAWAG Group

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

BAWAG PSK Bank für Arbeit und Wirtschaft und Oesterreichische Postsparkasse AG

	Rating	Outlook
Fitch	-	-
Moody's	A1	Positive
S&P	-	-

Homepage

www.bawaggroup.com

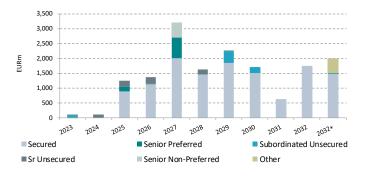
The BAWAG Group is the holding company for BAWAG P.S.K. and is headquartered in Vienna. Its shares are listed on the Austrian stock exchange ATX. As at 14 July 2023, T. Rowe Price had a stake of 6.1%, with Wellington Management maintaining a stake of 5.8% and Golden Tree Investments Co. accounting for a share of 4.2%, meaning that the majority of the shares are held in free float. At 78% of core operating income, the focus of the Group, which pursues a multi-brand strategy, is on the German-speaking DACH region comprising Germany, Austria and Switzerland, in addition to the Netherlands. Of this figure, Austria accounts for a share of 79% as at FY 2022. The remaining share of just under 22% is attributable to western Europe and the USA. BAWAG has more than 2.1 million customers, who are offered a wide range of retail and corporate banking products. In addition, BAWAG offers international commercial real estate financing and capital market solutions. The business is divided into the core segments of Retail & SME (78% of operating income; FY 2022), Corporates, Real Estate & Public Sector (24%), Treasury (6%) and Corporate Center (-7%). The bank's strategy is focused on growth in the core markets, efficiency and its own risk profile. In addition, BAWAG has announced ESG targets for 2025. For example, the Group intends to reduce its CO₂ emissions (Scope 1 & 2) by at least 50% in addition to granting more than EUR 1.6bn in green loans. In February 2022, a purchase agreement for Peak Bancorp. (US Holding for Idaho First Bank) was signed, although regulatory approval is still pending. In addition, the bank acquired a German consumer loan and bond portfolio worth EUR 700m from Sberbank in the second quarter of 2022.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	35,148	35,899	34,295
Total Securities	6,840	6,206	6,344
Total Deposits	35,160	34,293	32,659
Tier 1 Common Capital	3,012	2,793	-
Total Assets	56,325	56,523	53,127
Total Risk-weighted Assets	20,135	20,664	19,622

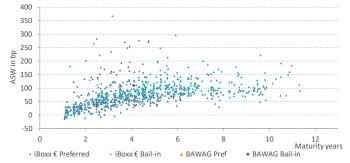
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	938	1,021	600
Net Fee & Commission Inc.	282	309	153
Net Trading Income	11	-13	-
Operating Expense	508	482	278
Credit Commit, Impairment	76	119	41
Pre-tax Profit	600	427	432

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.78	1.88	2.24	Liquidity Coverage Ratio	234.37	203.85	207.00
ROAE	11.00	7.62	16.39	IFRS Tier 1 Leverage Ratio	5.45	4.99	-
Cost-to-Income	46.12	37.95	37.08	NPL/Loans at Amortised Cost	2.40	1.45	-
Core Tier 1 Ratio	14.96	13.52	-	Reserves/Loans at Amort. Cost	1.13	1.18	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Efficiency

- Share of unsecured loans (consumer & corporate)
- Non-retail exposure



BAWAG P.S.K. – Mortgage

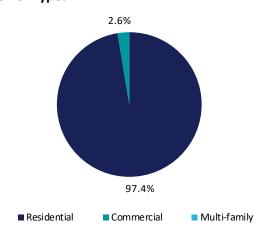
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

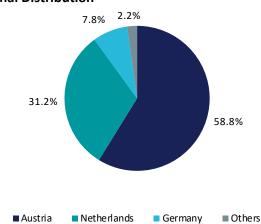
Cover Pool Data

Cover pool volume (EURm)	11,120	Rating (Moody's)	Aaa
Amount outstanding (EURm)	10,226	Rating (S&P)	-
-thereof ≥ EUR 500m	96.3%	Rating (Fitch)	-
Current OC (nominal)	8.7%	Rating (DBRS)	-
Committed OC	2.5%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	59% Austria	Collateral score	6.5%
Main region	16% Lower Austria	RRL	-
Number of loans	95,176	JRL	-
Number of borrowers	40,385	Unused notches	-
Avg. exposure to borrowers (EUR)	275,356	AAA credit risk (%)	-
WAL (cover pool)	24.3y	PCU	-
WAL (covered bonds)	7.6y	Recovery uplift	-
Fixed interest (cover pool)	71.8%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	57.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

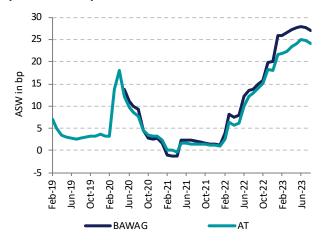
Borrower Types



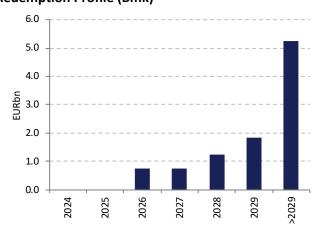
Regional Distribution



Spread Development



Redemption Profile (Bmk)





BAWAG P.S.K. - Public Sector

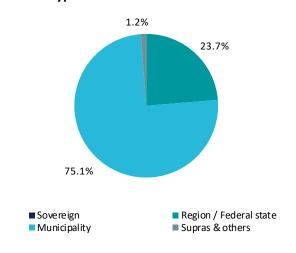
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

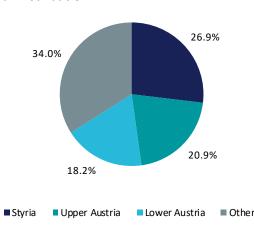
Cover Pool Data

Cover pool volume (EURm)	2,006	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,470	Rating (S&P)	-
-thereof ≥ EUR 500m	34.0%	Rating (Fitch)	-
Current OC (nominal)	36.5%	Rating (DBRS)	-
Committed OC	2.7%	TPI	High
Cover type	Public Sector	TPI leeway	4
Main country	96% Austria	Collateral score	7.4%
Main region	27% Styria	RRL	-
Number of loans	2,576	JRL	-
Number of borrowers	1,097	Unused notches	-
Avg. exposure to borrowers (EUR)	1,828,724	AAA credit risk (%)	-
WAL (cover pool)	15.8y	PCU	-
WAL (covered bonds)	2.9y	Recovery uplift	-
Fixed interest (cover pool)	58.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

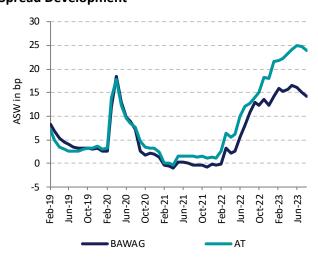
Borrower Types



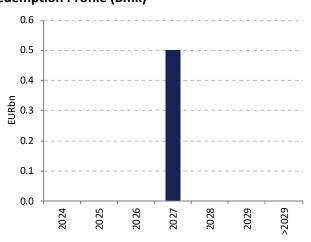
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bausparkasse Wüstenrot

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bausparkasse Wüstenrot AG

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB+	Stable

Homepage

www.wuestenrot.at

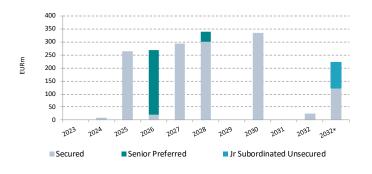
Bausparkasse Wüstenrot AG was founded in 1925 as the first building society in Austria and, together with the Wüstenrot Versicherungs-AG and the Wüstenrot Bank AG, forms the main units of the Wüstenrot Group. After BWA Beteiligungs- und Verwaltungs-AG was merged into Bausparkasse Wüstenrot AG in September 2022, Bausparkasse Wüstenrot AG is now responsible for operational management of the product houses. In addition, on 15 December 2022, the ECB granted the Wüstenrot Group's application for a banking licence. With the founding of Wüstenrot Bank AG, the bank, building society and insurance company all now operate under the same roof. With this, the institute is seeking to position itself as Austria's sole all-financial service provider and, in future, offer product solutions in the areas of current accounts, savings, financing, insurance and pensions. The Group, which has total assets of EUR 11.3bn (FY 2022), employs 1,282 staff, who serve roughly 1.2 million customers in Austria alone. In strategic terms, the Wüstenrot Group focuses on the bancassurance retail customer business in Austria. For Wüstenrot Versicherungs-AG, the focus is equally on the retail business. At around 69% (FY 2022), the funding mix of Bausparkasse Wüstenrot is largely based on customer deposits, with Pfandbriefe accounting for a share of 20%. At the end of the financial year 2022, mortgage-backed loans made up 94% of the structure of the loan portfolio, while in terms of the sectoral breakdown, 95% was attributable to financing for private housing.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	4,911	4,983	5,458
Total Securities	723	617	543
Total Deposits	5,212	4,330	4,206
Tier 1 Common Capital	576	529	646
Total Assets	6,464	6,341	6,860
Total Risk-weighted Assets	3,377	3,268	3,462

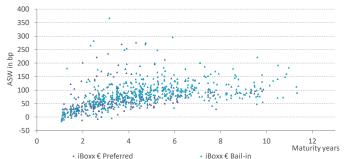
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	95	83	73
Net Fee & Commission Inc.	7	10	21
Net Trading Income	-	-	-
Operating Expense	65	69	56
Credit Commit, Impairment	-	-	-
Pre-tay Profit	25	28	43

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.58	1.42	1.21	Liquidity Coverage Ratio	318.30	340.30	265.10
ROAE	4.02	4.08	5.00	IFRS Tier 1 Leverage Ratio	9.04	8.42	9.56
Cost-to-Income	63.33	64.80	54.21	NPL/Loans at Amortised Cost	1.20	-	-
Core Tier 1 Ratio	17.05	16.20	18.65	Reserves/Loans at Amort. Cost	0.69	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in domestic mortgage business
- Capitalisation

- Profitability
- Geographical credit concentration risks (AT)



Bausparkasse Wüstenrot – Mortgage

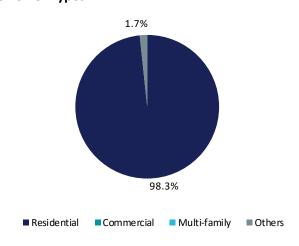
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

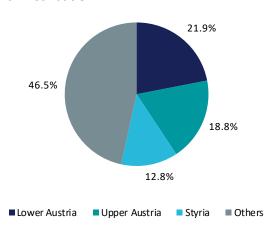
Cover Pool Data

Cover pool volume (EURm)	2,034	Rating (Moody's)	-
Amount outstanding (EURm)	1,527	Rating (S&P)	AAA
-thereof ≥ EUR 250m	72.0%	Rating (Fitch)	-
Current OC (nominal)	33.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Austria	Collateral score	-
Main region	22% Lower Austria	RRL	a
Number of loans	16,742	JRL	aa
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.9%
WAL (cover pool)	28.3y	PCU	-
WAL (covered bonds)	6.9y	Recovery uplift	-
Fixed interest (cover pool)	77.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	97.1%	LCR eligible	Yes
LTV (indexed)	69.0%	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	НВ

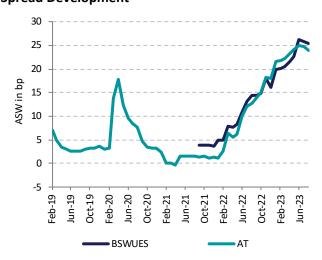
Borrower Types



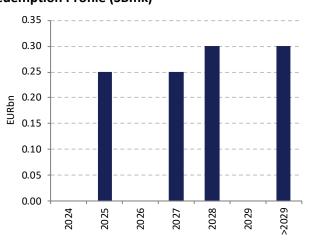
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Erste Group Bank

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Erste Group Bank AG

	Rating	Outlook
Fitch	Α	Stable
Moody's*	A1	Stable
S&P	A+	Stable

Homepage

www.erstegroup.com

*Senior Unsecured/LT Bank Deposits

Austria's Erste Group Bank AG (Erste) was founded in 1819 and was listed on the Vienna stock exchange for the first time in 1997. As at 31 December 2022, the largest known shareholders are Sparkassen Beteiligungs GmbH & Co KG (11.5%), followed by the direct shareholder ERSTE Stiftung (5.8%). As measured by total assets, Erste is the largest bank in Austria. The Erste Group is operationally active in various countries via its subsidiaries, while the Group's holding company is responsible for the strategic direction. Geographically, the bank operates in Austria, Croatia, Romania, Serbia, Slovakia, Czech Republic and Hungary. In its seven core markets, Erste serves more than 16.1 million customers (4.0 million of which are located in Austria) across more than 2,000 branches. In this regard, Erste is among the largest financial service providers in terms of customer numbers and total assets in CEE markets. In FY 2022, the market share for retail and corporate loans as well as retail customer deposits was at least 20% in each case on the domestic market of Austria. With regard to business units, Erste operates across the following segments: Retail Customers, Corporate Clients, Capital Market Business, BSM & LCC, Savings Banks, Group Corporate Center and Consolidations. In terms of the core customer groups, Erste focuses on retail customers and SMEs. In geographical terms, Austria (49%) and Czech Republic (19%; as at Q3 2022) account for the largest shares of loan exposure. In addition, Erste is a member of the Net-Zero Banking Alliance. In this context, it has set a goal of achieving a share of 25% of green financing in the Group portfolio by 2026 and intends to realise EUR 1.0bn in social banking financing by 2030.

Balance Sheet (EURm) 2021Y 2022Y 2023Q1 Net Loans to Customers 178,113 199,704 200,265 53,286 59,954 61,865 **Total Securities** 223,973 238,074 **Total Deposits** 210,523 20,489 Tier 1 Common Capital 18,804 20,443 342,921 **Total Assets** 307,428 323,865

127,448

141,793

145,389

Income Statement

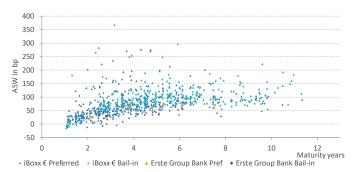
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	4,976	5,951	1,769
Net Fee & Commission Inc.	2,304	2,452	643
Net Trading Income	199	-123	35
Operating Expense	4,307	4,575	1,242
Credit Commit, Impairment	161	298	-20
Pre-tax Profit	2,933	3,222	1,003

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.69	1.88	2.19	Liquidity Coverage Ratio	177.31	137.96	135.22
ROAE	10.35	11.00	12.63	IFRS Tier 1 Leverage Ratio	6.18	6.40	6.05
Cost-to-Income	58.03	56.37	55.87	NPL/Loans at Amortised Cost	2.46	2.12	2.14
Core Tier 1 Ratio	14.75	14.42	14.09	Reserves/Loans at Amort. Cost	2.13	1.93	1.94

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Franchise in AT and CEE
- Funding profile
- Capitalisation

- Highly competitive market in AT
- Asset quality (tail risks linked to Ukraine war)
- Dependency on net interest income



Erste Group Bank - Mortgage

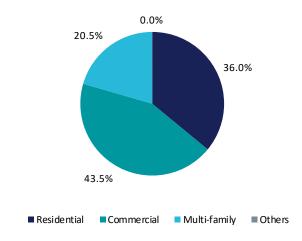
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

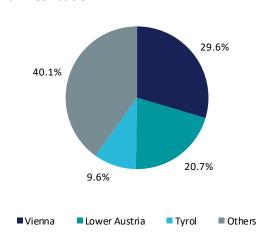
Cover Pool Data

Cover pool volume (EURm)	27,935	Rating (Moody's)	Aaa
Amount outstanding (EURm)	21,053	Rating (S&P)	-
-thereof ≥ EUR 500m	46.3%	Rating (Fitch)	-
Current OC (nominal)	32.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	98% Austria	Collateral score	12.9%
Main region	30% Vienna	RRL	-
Number of loans	111,856	JRL	-
Number of borrowers	90,000	Unused notches	-
Avg. exposure to borrowers (EUR)	310,387	AAA credit risk (%)	-
WAL (cover pool)	10.1y	PCU	-
WAL (covered bonds)	5.3y	Recovery uplift	-
Fixed interest (cover pool)	47.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	46.0%	LCR eligible	Yes
LTV (indexed)	60.7%	LCR level (Bmk)	1
LTV (unindexed)	66.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

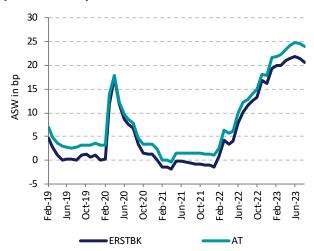
Borrower Types



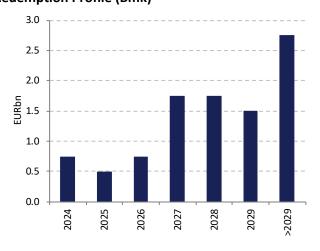
Regional Distribution



Spread Development



Redemption Profile (Bmk)





HYPO NOE Landesbank für NÖ und Wien

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

HYPO NOE Landesbank für Niederösterreich und Wien AG

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	Α	Stable

Homepage

www.hyponoe.at

HYPO NOE Landesbank für Niederösterreich und Wien AG (HYPO NOE Landesbank) is the oldest and, as measured by total assets (FY 2022), the largest regional mortgage bank in Austria. It operates as a commercial bank, regional bank and specialist mortgage bank. Lower Austria, the largest federal state in Austria, is the sole owner of the banking group. HYPO NOE Landesbank describes the regions of Lower Austria (23% market share) and Vienna as its home market. In addition, the banking group is active across the rest of Austria and Germany, which HYPO NOE ranks among its core markets, in addition to operating selectively in other EU markets. The HYPO NOE Group divides its business activities into the following segments: Public Sector (18% of operating income in H1/2023; focus: public financing, leasing, investment solutions), Real Estate (17%; non-profit and commercial housing development), Retail and Corporate Customers (22%; financing, investment, payment transactions and insurance products) and Treasury & ALM (22%), as well as the administrative segment Corporate Center (22%). The funding mix as at 30 June 2023 comprises public sector and mortgage-backed Pfandbriefe (34%) and unsecured bonds (27%), in addition to deposits (36%) and TLTRO III (2%). According to information from the bank itself, HYPO NOE Landesbank is one of the largest Pfandbrief issuers in Austria. Since 2021, the Bank has been a climate initiative partner ("klimaaktiv Paktpartner 2030") with the goal of reducing its CO₂ emissions by 50% by 2030 (base 2005). In the senior unsecured segment, three green bonds each worth EUR 500m have been issued up to H1/2023.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	12,266	12,136	12,206
Total Securities	2,365	2,195	2,333
Total Deposits	3,796	3,340	3,630
Tier 1 Common Capital	730	773	772
Total Assets	16,763	15,121	15,583
Total Risk-weighted Assets	3,770	3,766	3,882

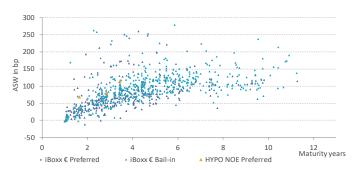
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	140	142	87
Net Fee & Commission Inc.	19	15	9
Net Trading Income	2	6	0
Operating Expense	101	103	60
Credit Commit, Impairment	11	4	2
Pro-tay Profit	54	62	66

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.85	0.88	1.12	Liquidity Coverage Ratio	202.45	162.85	163.72
ROAE	5.74	6.16	12.60	IFRS Tier 1 Leverage Ratio	4.60	5.39	5.23
Cost-to-Income	61.33	61.22	46.84	NPL/Loans at Amortised Cost	0.92	1.07	1.44
Core Tier 1 Ratio	19.35	20.52	19.88	Reserves/Loans at Amort. Cost	0.64	0.66	0.68

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Connection to sole owner (Lower Austria)

- Profitability
- Geographical diversification



HYPO NOE – Mortgage

Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

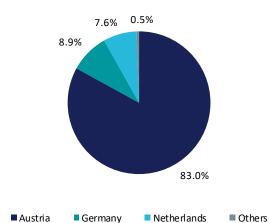
Cover pool volume (EURm)	3,113	Rating (Moody's)	Aa1
Amount outstanding (EURm)	2,682	Rating (S&P)	-
-thereof ≥ EUR 500m	55.9%	Rating (Fitch)	-
Current OC (nominal)	16.1%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	Unpublished
Main country	83% Austria	Collateral score	10.6%
Main region	62% Lower Austria	RRL	-
Number of loans	11,634	JRL	-
Number of borrowers	9,182	Unused notches	-
Avg. exposure to borrowers (EUR)	339,086	AAA credit risk (%)	-
WAL (cover pool)	8.6y	PCU	-
WAL (covered bonds)	4.4y	Recovery uplift	-
Fixed interest (cover pool)	47.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	58.9%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

32.2%



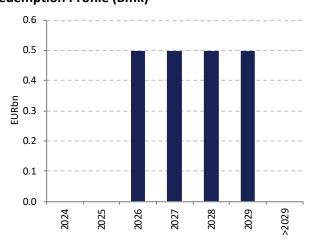
Regional Distribution



Spread Development



Redemption Profile (Bmk)





HYPO NOE – Public Sector

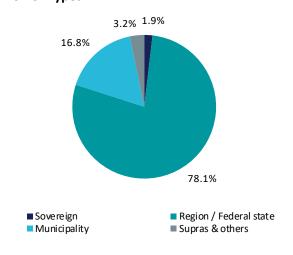
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

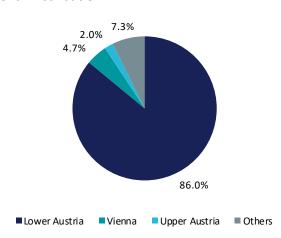
Cover Pool Data

Cover pool volume (EURm)	4,571	Rating (Moody's)	Aa1
Amount outstanding (EURm)	3,491	Rating (S&P)	-
-thereof ≥ EUR 500m	71.6%	Rating (Fitch)	-
Current OC (nominal)	30.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	Unpublished
Main country	100% Austria	Collateral score	14.0%
Main region	86% Lower Austria	RRL	-
Number of loans	47,639	JRL	-
Number of borrowers	40,914	Unused notches	-
Avg. exposure to borrowers (EUR)	111,717	AAA credit risk (%)	-
WAL (cover pool)	10.0y	PCU	-
WAL (covered bonds)	5.4y	Recovery uplift	-
Fixed interest (cover pool)	50.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	99.4%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



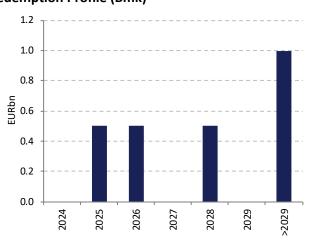
Regional Distribution



Spread Development



Redemption Profile (Bmk)





HYPO Oberösterreich

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Oberösterreichische Landesbank AG

	Rating	Outlool
Fitch	-	-
Moody's	-	-
S&P	A+	Stable

Homepage

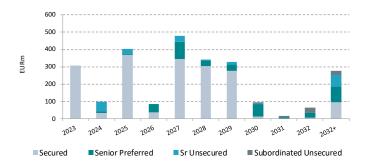
www.hypo.at

Hypo Oberösterreich (HO) was established in 1891 as Oberösterreichische Landes-Hypothekenanstalt. As a regional bank, HO operates eleven branches in Upper Austria and Vienna. It employs more than 400 staff and serves more than 100,000 customers. Furthermore, HO is the house bank for the federal state of Upper Austria and, according to information from the bank itself, is among the market leaders for public and private housing projects in Upper Austria. The majority owner is the federal state of Upper Austria (FY 2022: followed by Raiffeisenlandesbank Oberösterreich AG (41.1%) Oberösterreichische Versicherung AG (7.5%). The institute defines its business activities as the following: Key Accounts (business with public institutions as well as business with nonprofit and commercial property developers; 54% of pre-tax profit in FY 2022), Retail and Residential Housing (support for private households, self-employed people, freelancers and small businesses; 14%), Financial Markets (financial investments, trading portfolios, issuance business and interbank operations; 13%) and Other (subsidiary companies, equity participations; 20%). The loan portfolio is made up of exposures in the segments Key Accounts (52.5%; FY 2022) and Retail and Residential Housing (47.5%), with 39.4% of Key Accounts assigned to large residential construction projects and 31.0% to public institutions. In relation to sustainability aspects, HO has committed to complying with the 1.5-degree Celsius target of the Paris Climate Agreement. For example, the bank will strive to achieve climate-neutrality for Scope 1 (direct emissions) and Scope 2 (indirect emissions from energy supply) by 2025. To this end, sustainable financing is to be increased by 10% each

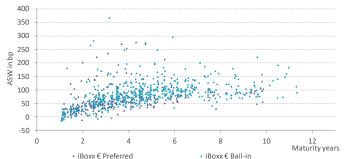
Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	5,460	5,599	5,882
Total Securities	1,593	1,466	1,048
Total Deposits	1,737	1,945	2,301
Tier 1 Common Capital	458	481	478
Total Assets	7,825	8,158	7,969
Total Risk-weighted Assets	3,104	3,348	3,484

Income Statement			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	57	61	77
Net Fee & Commission Inc.	15	17	16
Net Trading Income	-5	10	4
Operating Expense	55	58	60
Credit Commit, Impairment	6	3	4
Pre-tay Profit	11	33	40

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.74	0.78	0.98	Liquidity Coverage Ratio	165.70	196.79	165.81
ROAE	2.02	5.72	6.80	IFRS Tier 1 Leverage Ratio	5.94	5.95	6.10
Cost-to-Income	77.11	61.77	57.60	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	14.76	14.35	13.72	Reserves/Loans at Amort. Cost	0.21	0.24	0.28

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Connection to federal state of Upper Austria
- Business model
- Capitalisation

- Profitability
- Geographical concentration risks
- Credit concentration risks related to the public sector



Hypo Oberösterreich – Mortgage

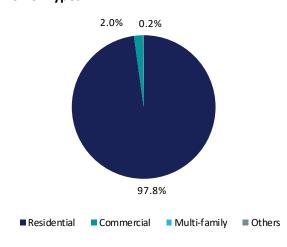
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

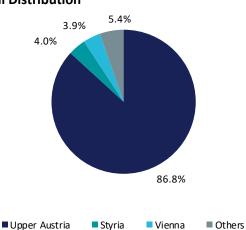
Cover Pool Data

Cover pool volume (EURm)	2,762	Rating (Moody's)	-
Amount outstanding (EURm)	2,448	Rating (S&P)	AA+
-thereof ≥ EUR 250m	42.9%	Rating (Fitch)	-
Current OC (nominal)	12.8%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Austria	Collateral score	-
Main region	87% Upper Austria	RRL	a+
Number of loans	43,556	JRL	aa+
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	13.6%
WAL (cover pool)	10.1y	PCU	-
WAL (covered bonds)	5.5y	Recovery uplift	-
Fixed interest (cover pool)	23.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	87.8%	LCR eligible	Yes
LTV (indexed)	36.6%	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	НВ

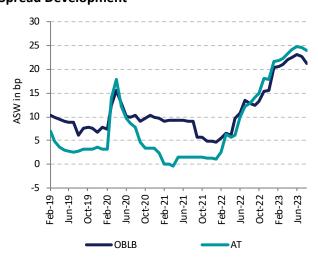
Borrower Types



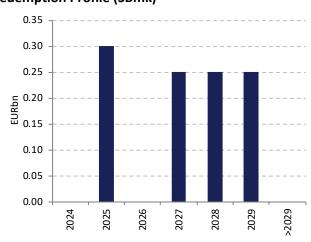
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Hypo Tirol Bank

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Hypo Tirol Bank AG

	Rating	Outlook
Fitch	-	-
Moody's*	Baa1	Positive
S&P	A+	Stable

Homepage

www.hypotirol.com

*LT Bank Deposits Rating

Hypo Tirol Bank AG (Hypo Tirol), headquartered in Innsbruck, is a regional universal bank founded in 1901 for retail and corporate customers as well as public institutions that is wholly owned by the Austrian federal state of Tyrol. Geographically, the bank has a clear focus on the Tyrol market, where it operates as a universal bank across a network of 18 business centres. However, it is also active with a single branch as a niche provider in the region around Vienna, where the focus is on "upscale" investments and financing for commercial residential housing projects. The broad portfolio of financial services is supplemented by Hypo Tirol Versicherungsmakler GmbH, Hypo Immobilien Betriebs GmbH and Hypo Tirol Leasing GmbH. Hypo Tirol reports across the segments of Retail Customers (27% of pre-tax profit in FY 2022), Corporate Customers (44%), Treasury (37%), Real Estate and Participations (3%) and Corporate Center (-10%). Customer loans can be divided into three groups: corporate customers (61% as at FY 2022), private households (23%) and the public sector (16%), with 94% of all customer loans originating in Austria. Pfandbriefe (66%) and bonds (24%) account for the lion's share of securitised liabilities, while in terms of deposits the greatest shares are attributable to private households (47%) and corporate customers (37%), with the public sector (16%) playing a lesser role here. The bank has also become active in the area of ESG bonds. In this context, the funding mix has been supplemented by a social covered bond (EUR 500m) since March 2021. In addition, following the finalisation and publication in December 2022 of the Green Bond Framework, Hypo Tirol issued a green covered bond with a volume of EUR 300m in January 2023.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	6,023	6,373	5,825
Total Securities	1,250	1,181	1,296
Total Deposits	3,727	3,718	3,657
Tier 1 Common Capital	558	564	591
Total Assets	8,769	8,957	8,588
Total Risk-weighted Assets	3,843	3,995	3,537

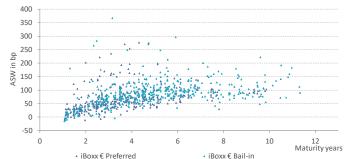
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	78	87	95
Net Fee & Commission Inc.	29	32	31
Net Trading Income	2	5	15
Operating Expense	71	74	76
Credit Commit, Impairment	23	11	25
Pre-tax Profit	12	30	44

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.99	1.00	1.11	Liquidity Coverage Ratio	209.81	197.62	250.14
ROAE	1.38	3.92	5.87	IFRS Tier 1 Leverage Ratio	6.43	6.35	7.13
Cost-to-Income	66.92	64.37	53.22	NPL/Loans at Amortised Cost	3.21	2.41	3.25
Core Tier 1 Ratio	14.52	14.11	16.72	Reserves/Loans at Amort. Cost	1.59	1.19	1.58

Source: Bloomberg. S&P Global Market Intelligence. NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Market share among corporate customers in Tyrol
- Asset quality

- Profitability
- Concentration on cyclical industries
- Dependency on wholesale funding



Hypo Tirol Bank - Mortgage

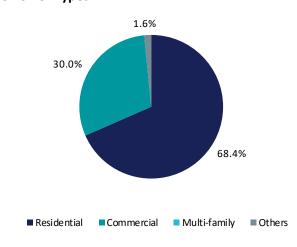
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	2,782	Rating (Moody's)	Aa1
Amount outstanding (EURm)	2,501	Rating (S&P)	-
-thereof ≥ EUR 500m	40.0%	Rating (Fitch)	-
Current OC (nominal)	11.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	10.9%
Main region	85% Tyrol	RRL	-
Number of loans	12,664	JRL	-
Number of borrowers	9,573	Unused notches	-
Avg. exposure to borrowers (EUR)	286,079	AAA credit risk (%)	-
WAL (cover pool)	10.2y	PCU	-
WAL (covered bonds)	4.7y	Recovery uplift	-
Fixed interest (cover pool)	24.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	57.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



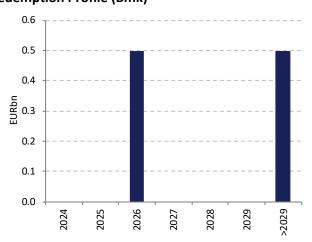
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Hypo Vorarlberg Bank

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Hypo Vorarlberg Bank AG

	Rating	Outlook
Fitch	-	-
Moody's	А3	Stable
S&P	A+	Stable

Homepage

www.hypovbg.at

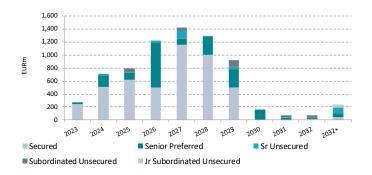
Founded in 1897, Hypo Vorarlberg Bank AG (Hypo VBG) focuses its business activities on the markets of Austria, Switzerland, Germany and northern Italy. According to information from the bank itself, Hypo VBG is the market leader as an entrepreneur bank in Vorarlberg. Alongside the Vorarlberg region, the bank is represented in the south of Germany, St. Gallen and Bolzano, where 729 employees serve around 90,000 retail customers and 11,000 corporate clients (FY 2022). The state of Vorarlberg holds a stake of nearly 77% in Hypo VBG via Vorarlberger Landesbank-Holding. Approximately 23% is held by Austria Beteiligungsgesellschaft (indirectly LBBW 15% and L-Bank 8%). The geographical diversification of the loan portfolio reveals that around 39% (FY 2022) is attributable to the Austrian federal state of Vorarlberg, while the rest of Austria accounts for a share of 37%, with Germany taking a share of 13% as well. Hypo VBG operates 20 branches in Austria, of which 15 are located in Vorarlberg. The bank reports across the following four segments: Corporate Clients, Retail Customers, Financial Markets and Corporate Center. Hypo VBG has its own subsidiaries for specialised products, such as real estate, leasing and insurance. In terms of refinancing activities in FY 2022, the largest share of the wholesale funding portfolio (EUR 7.8bn) is attributable to mortgage Pfandbriefe (53%), followed by senior unsecured bonds (35%) and public sector Pfandbriefe (6%). As part of its sustainability strategy, green bonds are also issued to supplement the funding mix. For example, the Green Bond Framework was updated in 2023 in order to take account of new regulations (e.g. the EU Taxonomy), following which HYPO VBG issued a green senior bond with a volume of EUR 500m.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	10,340	10,379	10,645
Total Securities	3,163	2,907	3,108
Total Deposits	5,647	5,418	5,645
Tier 1 Common Capital	1,240	1,302	1,412
Total Assets	15,297	15,626	15,305
Total Risk-weighted Assets	8,645	8,459	8,728

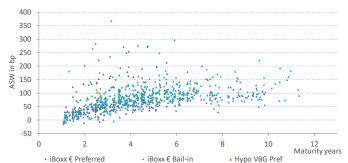
Income Statement

moonic otatomone			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	174	196	168
Net Fee & Commission Inc.	35	38	34
Net Trading Income	-7	-5	80
Operating Expense	103	107	114
Credit Commit, Impairment	41	15	-10
Pre-tax Profit	49	94	161

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.21	1.29	1.10	Liquidity Coverage Ratio	153.53	164.21	162.76
ROAE	3.07	5.29	8.86	IFRS Tier 1 Leverage Ratio	8.26	8.46	9.64
Cost-to-Income	52.60	49.45	42.87	NPL/Loans at Amortised Cost	2.70	2.76	2.63
Core Tier 1 Ratio	14.34	15.39	16.17	Reserves/Loans at Amort. Cost	1.23	1.17	0.93

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market shares in Vorarlberg
- Capitalisation
- Profitability

- Intense competition in AT
- Geographical risk concentration
- Dependency on wholesale funding



Hypo Vorarlberg Bank – Mortgage

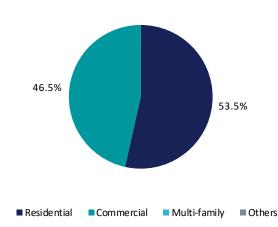
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	5,580	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,334	Rating (S&P)	-
-thereof ≥ EUR 500m	92.3%	Rating (Fitch)	-
Current OC (nominal)	28.8%	Rating (DBRS)	-
Committed OC	4.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	75% Austria	Collateral score	17.6%
Main region	55% Vorarlberg	RRL	-
Number of loans	18,818	JRL	-
Number of borrowers	12,452	Unused notches	-
Avg. exposure to borrowers (EUR)	448,125	AAA credit risk (%)	-
WAL (cover pool)	15.1y	PCU	-
WAL (covered bonds)	3.8y	Recovery uplift	-
Fixed interest (cover pool)	39.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	58.8%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	HB & SB

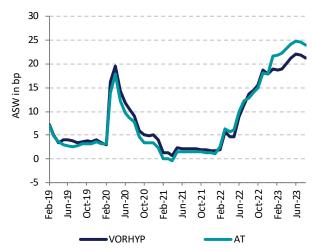
Borrower Types



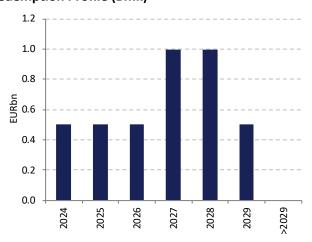
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Kommunalkredit Austria

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Kommunalkredit Austria AG

	Rating	Outlook
Fitch	BBB-	Stable
Moody's	-	-
S&P	BBB-	Positive

Homepage

www.kommunalkredit.at

Kommunalkredit Austria AG (Kommunalkredit) is a supplier of financing solutions for infrastructure and energy projects in Europe with its headquarters in Austria. The bank is a partner for companies and sponsors who are involved in the construction, acquisition and/or operation of infrastructure and energy projects. Kommunalkredit also advises the public sector on financing and investments in the public finance business. The bank prioritises projects in the areas of energy and environment (in particular renewable energy), transport, communication and digitalisation, in addition to social infrastructure. Kommunalkredit is 99.8% owned by Satere Beteiligungsverwaltung, via which Interritus Limited (54.9%) and Trinity Investments Designated Activity Company (44.9%) hold their stakes. On 07 February 2023, the bank announced that the Scandinavian investor Altor is to acquire a majority shareholding of 80% in Kommunalkredit via Green Opera Finance BidCo AB. To this end, the owners of Satere (Interritus and Trinity) are selling their stakes in full and, on completion of the deal, will only hold indirect stakes of 9.9% through the acquiring company. Regulatory approval for the transaction is still pending (as of 18 July 2023). The institute is mainly active in the EU and countries associated with the EU. A total of 28% (FY 2022) of the loan portfolio is located in Austria and 46% in the eurozone excluding Austria. The funding mix is largely based on customer deposits (53% as at FY 2022) and covered bonds (27%). A Sustainable Bond Framework was published in February 2023, which will enable the bank to issue ESG bonds in the future.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	2,754	3,084	3,245
Total Securities	496	423	515
Total Deposits	2,116	1,861	2,289
Tier 1 Common Capital	338	344	402
Total Assets	4,423	4,428	4,628
Total Risk-weighted Assets	1,688	2,027	2,534

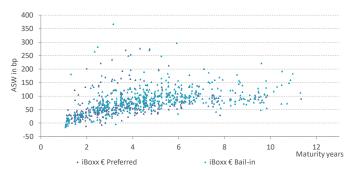
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	77	79	126
Net Fee & Commission Inc.	29	29	30
Net Trading Income	1	10	16
Operating Expense	59	66	78
Credit Commit, Impairment	0	0	2
Pre-tax Profit	48	67	99

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.78	1.80	2.80	Liquidity Coverage Ratio	420.62	734.81	348.00
ROAE	10.37	12.26	17.20	IFRS Tier 1 Leverage Ratio	8.05	8.09	9.08
Cost-to-Income	55.03	49.38	43.65	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	20.02	16.99	15.85	Reserves/Loans at Amort. Cost	0.22	0.20	0.23

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in niche markets
- Asset quality
- Profitability

- Diversification of business units
- Syndication risk
- Dependency on key personnel



Kommunalkredit – Public

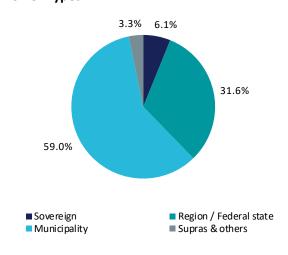
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

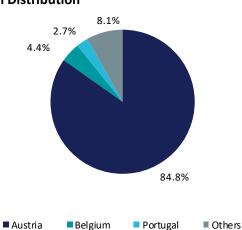
Cover Pool Data

Cover pool volume (EURm)	1,248	Rating (Moody's)	-
Amount outstanding (EURm)	1,098	Rating (S&P)	A+
-thereof ≥ EUR 250m	59.2%	Rating (Fitch)	-
Current OC (nominal)	13.6%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Public Sector	TPI leeway	-
Main country	85% Austria	Collateral score	-
Main region	27% Lower Austria	RRL	bbb+
Number of loans	2,207	JRL	a+
Number of borrowers	1,041	Unused notches	0
Avg. exposure to borrowers (EUR)	1,199,135	AAA credit risk (%)	-
WAL (cover pool)	6.7y	PCU	-
WAL (covered bonds)	4.1y	Recovery uplift	-
Fixed interest (cover pool)	81.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	82.8%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (SBmk)	НВ

Borrower Types



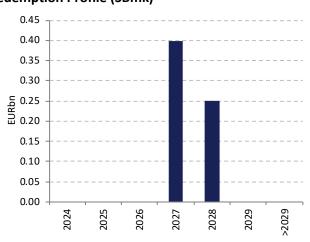
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Oberbank

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Oberbank AG

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	Α	Stabel

Homepage

www.oberbank.de

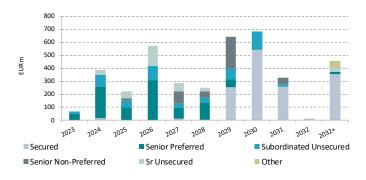
Founded in 1869, Oberbank AG is a medium-sized universal bank from Austria with a regional focus. It benefits from synergy effects as a result of being part of the 3 Banken Gruppe (3BG). This partnership-based cooperation is composed of the regional banks BKS Bank (BKS), Bank für Tirol und Vorarlberg (BTV) and Oberbank. Mutual participations exist between all three banks and they cooperate across various fields. For example, the banks have joint participations in the areas of IT, investments and the housing sector. Oberbank has more than 2,130 employees, who serve around 278,000 retail customers and more than 58,000 business customers across 180 branches in five countries (Austria, Germany, Czech Republic, Hungary and Slovakia). The bank's ownership structure can be broken down as follows: around 24% (as at 31 March 2023) for CABO Beteiligungsgesellschaft (wholly owned subsidiary of UniCredit Bank Austria), 17% for BTV, 15% for BKS and 3% for UniCredit Bank Austria. A total of 35% of the shares are held in free float. The bank reports across the following segments: Corporate Clients, Retail Customers, Financial Markets and Other. With an annual pre-tax profit of EUR 266.9m (FY 2022), Corporate Clients is the strongest operating segment, followed by Retail Customers at EUR 64.8m. Although Oberbank is active across various regions, more than three quarters of the credit risk volume is attributable to Austria (60%) and Germany (19%). Part of the "Oberbank 2025" strategy is the commitment to the 1.5 degrees Celsius target of the Paris Climate Agreement. In order to achieve this goal, Oberbank plans to grant loans of at least EUR 1.5bn in the area of energy-efficient residential construction projects by 2025.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	18,428	19,193	19,786
Total Securities	2,319	2,650	2,662
Total Deposits	14,729	15,061	15,521
Tier 1 Common Capital	2,971	3,126	3,127
Total Assets	27,540	26,798	27,777
Total Risk-weighted Assets	16,188	17,341	18,002

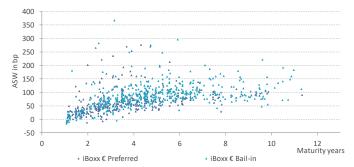
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	346	406	131
Net Fee & Commission Inc.	192	207	53
Net Trading Income	12	-30	9
Operating Expense	324	328	85
Credit Commit, Impairment	36	41	5
Pre-tax Profit	282	295	150

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.40	1.56	2.04	Liquidity Coverage Ratio	203.52	179.80	186.61
ROAE	7.39	7.20	14.23	IFRS Tier 1 Leverage Ratio	10.82	11.77	11.35
Cost-to-Income	50.46	49.34	35.42	NPL/Loans at Amortised Cost	1.87	2.52	-
Core Tier 1 Ratio	18.35	18.03	17.37	Reserves/Loans at Amort. Cost	1.15	1.23	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Franchise (Upper Austria and Salzburg)
- Capitalisation

- Regional concentration risks (corporate business)
- Concentration risks from equity investments



Oberbank - Mortgage

Austria =

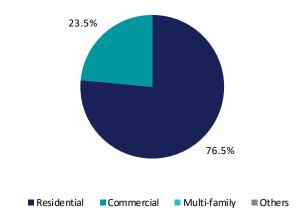
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

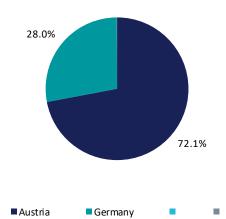
Cover Pool Data

Cover pool volume (EURm)	3,809	Rating (Moody's)	-
Amount outstanding (EURm)	2,277	Rating (S&P)	AAA
-thereof ≥ EUR 250m	57.1%	Rating (Fitch)	-
Current OC (nominal)	67.3%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	72% Austria	Collateral score	-
Main region	28% Upper Austria	RRL	aa-
Number of loans	17,140	JRL	aa+
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	10.6%
WAL (cover pool)	15.9y	PCU	-
WAL (covered bonds)	6.0y	Recovery uplift	-
Fixed interest (cover pool)	41.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	65.0%	LCR eligible	Yes
LTV (indexed)	59.5%	LCR level (SBmk)	2A
LTV (unindexed)	70.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	HB & SB

Borrower Types

Regional Distribution

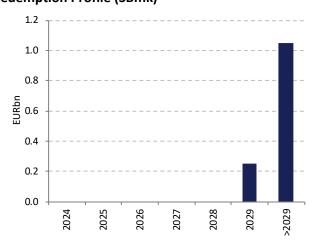




Spread Development

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Redemption Profile (SBmk)





RLB Niederösterreich-Wien

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisenlandesbank Niederösterreich-Wien AG

Rating	Outlook
-	-
A2	Stable
-	-
	-

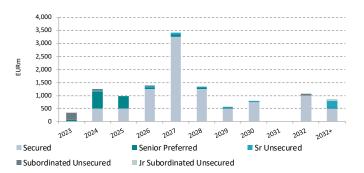
Homepage

www.raiffeisen.at

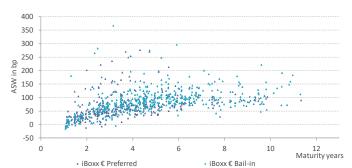
Raiffeisenlandesbank Niederösterreich-Wien AG (RLB NÖW) is a regional and commercial bank as well as the lead institute of the 44 Raiffeisen banks in Lower Austria (NÖ), which indirectly own 85% of RLB NÖW. Just under one million customers are served by Lower Austria's leading banking group. The main business areas of RLB NÖW include banking, agriculture, media and infrastructure. Furthermore, RLB NÖW holds a stake of 22.6% (FY 2022) in Raiffeisen Bank International AG (RBI), which makes it the lead shareholder of the commercial and investment bank active in Austria and the CEE region. In so doing, RBI covers other areas in addition to its banking operations such as leasing via its subsidiaries. In total, almost 47,000 staff serve 16 million customers across 2,159 branches. The business activities of RLB NÖW are organised into the following segments: Retail/Association Services, Commercial Customers, Financial Markets, RBI, Association, Other Investments (OI) and Other. In geographical terms, 83% of the exposure is attributable to Austria (FY 2022) as measured by loans to corporate customers, while in terms of sector, 40% of the lending portfolio is assigned to real estate and housing. At the end of 2022, 35% of the funding mix related to bond issuances and SSD deals (68% of own issues are covered bonds), followed by customer deposits at 31%. In addition, RLB NÖW has published a sustainability strategy. Among other aspects, the bank plans to no longer enter into any new business relationships in the mining and processing of coal and conflict minerals.

Balance Sheet				Income Statement		
(EURm)	2020Y	2021Y	2022Y	(EURm)	2020Y	2021Y
Net Loans to Customers	13,788	13,624	15,003	Net Interest Income	182	175
Total Securities	4,897	4,484	4,991	Net Fee & Commission Inc.	57	56
Total Deposits	9,177	9,088	8,896	Net Trading Income	-28	9
Tier 1 Common Capital	2,475	2,578	2,410	Operating Expense	223	227
Total Assets	28,663	28,592	28,693	Credit Commit, Impairment	91	-12
Total Risk-weighted Assets	13,567	12,981	13,341	Pre-tax Profit	-274	62

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.71	0.67	0.91	Liquidity Coverage Ratio	155.00	128.63	118.77
ROAE	-11.26	2.66	-1.06	IFRS Tier 1 Leverage Ratio	8.95	9.24	8.69
Cost-to-Income	55.91	40.38	21.96	NPL/Loans at Amortised Cost	2.32	1.98	2.00
Core Tier 1 Ratio	18.24	19.86	18.07	Reserves/Loans at Amort. Cost	1.55	1.38	1.30

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research; as\ of:\ 28.07.2023$

Strengths / Opportunities

- NPL ratio
- Liquidity

- Stake in RBI (susceptible to impairments)
- Dependency on RBI income



RLB Niederösterreich-Wien – Mortgage

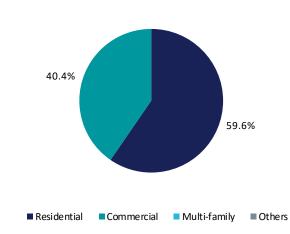
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

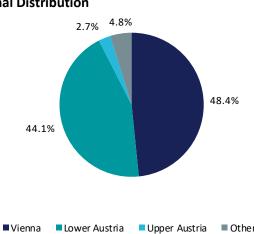
Cover Pool Data

Cover pool volume (EURm)	10,051	Rating (Moody's)	Aaa
Amount outstanding (EURm)	7,752	Rating (S&P)	-
-thereof ≥ EUR 500m	83.8%	Rating (Fitch)	-
Current OC (nominal)	29.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	10.6%
Main region	48% Vienna	RRL	-
Number of loans	39,328	JRL	-
Number of borrowers	30,030	Unused notches	-
Avg. exposure to borrowers (EUR)	334,699	AAA credit risk (%)	-
WAL (cover pool)	11.6y	PCU	-
WAL (covered bonds)	4.0y	Recovery uplift	-
Fixed interest (cover pool)	49.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	84.0%	LCR eligible	Yes
LTV (indexed)	51.8%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

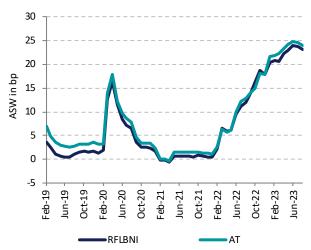
Borrower Types



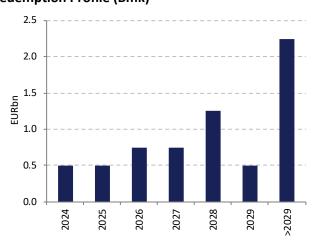
Regional Distribution



Spread Development



Redemption Profile (Bmk)





RLB Niederösterreich-Wien – Public Sector

Austria

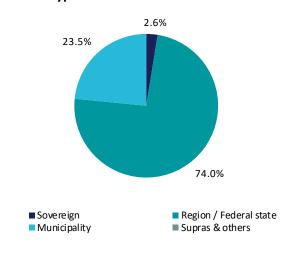


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

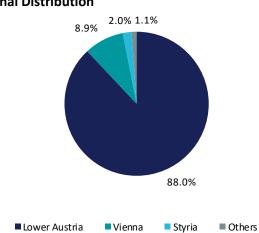
Cover Pool Data

Cover pool volume (EURm)	2,531	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,010	Rating (S&P)	-
-thereof ≥ EUR 500m	24.9%	Rating (Fitch)	-
Current OC (nominal)	25.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	3
Main country	100% Austria	Collateral score	25.7%
Main region	88% Lower Austria	RRL	-
Number of loans	3,205	JRL	-
Number of borrowers	1,393	Unused notches	-
Avg. exposure to borrowers (EUR)	1,780,673	AAA credit risk (%)	-
WAL (cover pool)	17.3y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	22.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	25.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

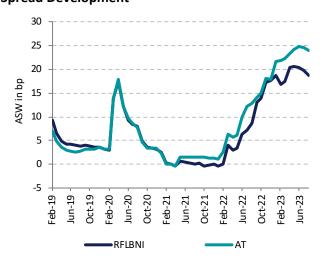
Borrower Types



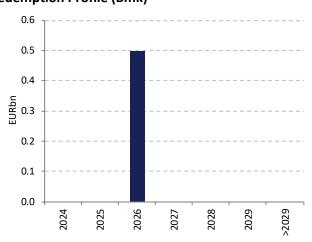
Regional Distribution



Spread Development



Redemption Profile (Bmk)





RLB Oberösterreich

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisenlandesbank Oberösterreich AG

	Rating	Outlook
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

www.raiffeisen.at

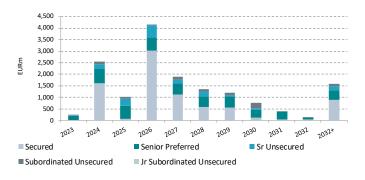
Raiffeisenlandesbank Oberösterreich AG (RLB OÖ) is a cooperative headquartered in Linz which was founded more than a century ago. RLB OÖ is the fifth-largest bank in Austria as measured by assets (data as at year-end 2022). It is part of the Raiffeisen Bankengruppe in Austria and is majority-owned by 70 independent regional Raiffeisen banks (with over 400 branches). In this way, RLB OÖ is the largest regional Raiffeisen bank in Austria. RLB OÖ is also a shareholder in Raiffeisen Bank International (RBI), which represents the central institute of the Raiffeisen Bankengruppe in Austria, with a stake of around 9.5%. RLB OÖ has around 1,700 staff, with the treasury, corporate and retail customer business as the focus of the bank's activities. Reporting takes place in the following segments: Corporates (42% of pre-tax profit as at FY 2022), Retail and Private Banking (5%), Financial Markets (12%), Investments (43%) and Corporate Center (-1%). In term of the structure of the bank, the Investments segment is divided into four portfolios: Banks & Financial Institutions, Outsourcing & Bank-related Investments, Real Estate and Opportunity & Partner Capital. Geographically, Austria and Germany account for the largest share of customer loans at 69% and 17% respectively (as at April 2023). Refinancing is largely divided into customer deposits (35%) and own issues (25%; of which 29% are covered bonds). In addition, RLB OÖ is part of the bank-related protection system (Raiffeisen-IPS), which includes more than 350 Raiffeisen banks, the eight regional Raiffeisen banks and Raiffeisen Bank International.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	24,745	25,295	25,933
Total Securities	8,165	7,237	5,966
Total Deposits	12,618	13,501	13,865
Tier 1 Common Capital	4,333	4,595	4,608
Total Assets	48,569	51,447	49,322
Total Risk-weighted Assets	27,907	28,748	29,130

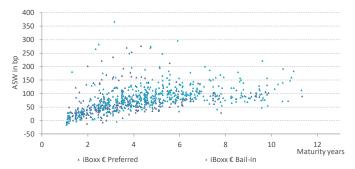
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	422	429	483
Net Fee & Commission Inc.	189	199	205
Net Trading Income	-10	176	110
Operating Expense	836	875	1,005
Credit Commit, Impairment	157	40	92
Pre-tax Profit	182	558	429

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.00	0.94	1.06	Liquidity Coverage Ratio	147.86	187.73	163.22
ROAE	3.45	9.37	6.46	IFRS Tier 1 Leverage Ratio	9.30	9.22	9.71
Cost-to-Income	65.05	54.41	53.70	NPL/Loans at Amortised Cost	2.72	3.40	3.59
Core Tier 1 Ratio	15.53	15.98	15.82	Reserves/Loans at Amort. Cost	1.49	1.62	1.73

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research; as\ of:\ 28.07.2023$

Strengths / Opportunities

- Capitalisation
- Liquidity

- Sectoral credit risk concentration
- RBI share (asset risk in connection with market risks)



RLB Oberösterreich – Mortgage

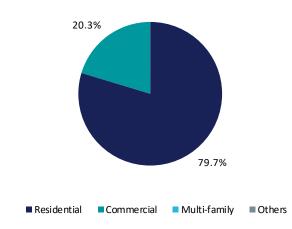
Austria =

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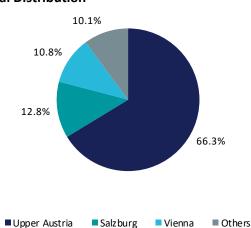
Cover Pool Data

Cover pool volume (EURm)	6,364	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,251	Rating (S&P)	-
-thereof ≥ EUR 500m	88.2%	Rating (Fitch)	-
Current OC (nominal)	49.7%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	10.1%
Main region	66% Upper Austria	RRL	-
Number of loans	40,867	JRL	-
Number of borrowers	67,053	Unused notches	-
Avg. exposure to borrowers (EUR)	94,880	AAA credit risk (%)	-
WAL (cover pool)	12.1y	PCU	-
WAL (covered bonds)	6.5y	Recovery uplift	-
Fixed interest (cover pool)	48.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	99.9%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	58.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

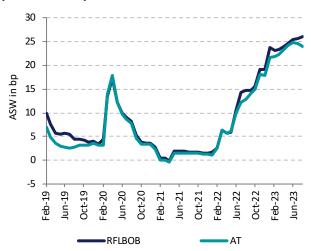
Borrower Types



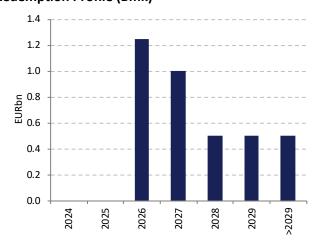
Regional Distribution



Spread Development



Redemption Profile (Bmk)





RLB Steiermark

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisen-Landesbank Steiermark AG

	Rating	Outlook
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

www.raiffeisen.at

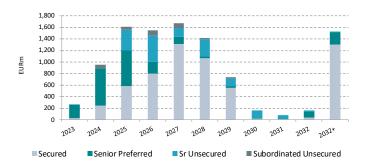
Raiffeisen-Landesbank Steiermark (RLBS) is a cooperative based in Graz that was formed in 1927, which has been organised in the legal form of a joint stock company since 2005. It is the central institute of the independent regional Raiffeisen banks, which together hold a leading market position in the Austrian federal state of Styria (Steiermark). Together with the 45 Raiffeisen banks in Styria, the bank's workforce of more than 3,300 employees serves around 751,000 retail customers and more than 67,900 corporate customers (FY 2022). RLBS reports in the following business segments: Commercial Customers, Retail Customers, Capital Market and Treasury, Equity Investments, Other and Reconciliation. In this context, Commercial Customers, Equity Investments as well as Capital Market and Treasury were the most profitable segments in terms of consolidated income before tax in 2022. Around 32% of the lending portfolio is attributable to corporate customers (FY 2022), with retail customers (9%), real estate (46%) and public sector and local authorities (13%) accounting for additional notable shares. Landes-Hypothekenbank Steiermark, which belongs to the RLBS Group, was merged with RLBS in 2021. The majority shareholder of RLBS is (indirectly) the association of 45 Raiffeisen banks in Styria, which holds an overall stake of over 99% in the bank. Raiffeisen Bank International AG (RBI) sits at the top of the Raiffeisen Bankengruppe structure and operates as the Group's central entity. With a share of just under 10% (FY 2022), RLBS is the second-largest shareholder in RBI. In FY 2022, the funding mix was based on customer deposits (26%), sector financing (28%), bond issuances and SSD deals (22%) and interbank funding (24%).

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	7,156	7,477	8,319
Total Securities	4,137	3,389	3,094
Total Deposits	3,966	4,178	3,936
Tier 1 Common Capital	1,386	1,420	1,481
Total Assets	17,697	18,513	17,368
Total Risk-weighted Assets	7,615	7,956	8,225

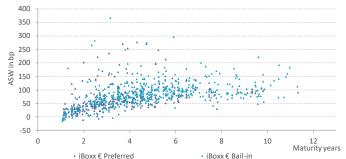
Income Statement

meetine otatement			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	114	110	151
Net Fee & Commission Inc.	41	44	42
Net Trading Income	99	12	-15
Operating Expense	176	135	139
Credit Commit. Impairment	53	-13	17
Pre-tax Profit	38	113	93

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.76	0.66	0.90	Liquidity Coverage Ratio	213.50	248.00	145.00
ROAE	1.70	5.51	4.74	IFRS Tier 1 Leverage Ratio	8.00	7.78	8.83
Cost-to-Income	44.90	41.25	22.12	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	18.20	17.85	18.00	Reserves/Loans at Amort. Cost	2.43	2.04	1.98

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Liquidity

- Sectoral credit concentration risks (CRE)
- RBI share (income volatility)



RLB Steiermark - Mortgage

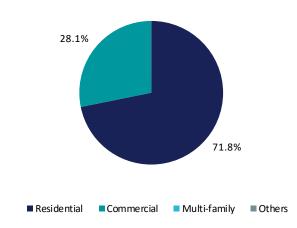
Austria =

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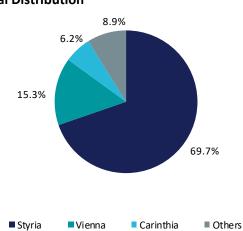
Cover Pool Dat	ca
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Cover pool volume (EURm)	7,706	Rating (Moody's)	Aaa
Amount outstanding (EURm)	5,345	Rating (S&P)	-
-thereof ≥ EUR 500m	46.8%	Rating (Fitch)	-
Current OC (nominal)	44.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	95% Austria	Collateral score	9.0%
Main region	70% Styria	RRL	-
Number of loans	40,062	JRL	-
Number of borrowers	33,133	Unused notches	-
Avg. exposure to borrowers (EUR)	232,487	AAA credit risk (%)	-
WAL (cover pool)	11.8y	PCU	-
WAL (covered bonds)	6.2y	Recovery uplift	-
Fixed interest (cover pool)	37.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	52.6%	LCR eligible	Yes
LTV (indexed)	58.4%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

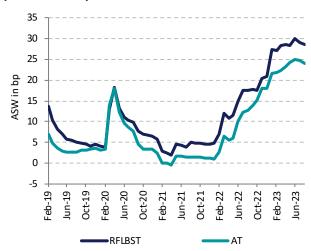
Borrower Types



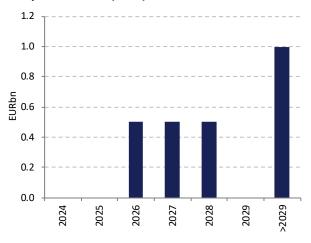
Regional Distribution



Spread Development



Redemption Profile (Bmk)





RLB Tirol

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisen-Landesbank Tirol AG

	Rating	Outlook
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

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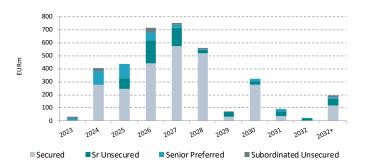
Raiffeisen-Landesbank Tirol AG (RLBT), founded in 1895, is the leading institute of the 50 independent Tyrolean Raiffeisen banks (RB) and one of eight regional Raiffeisen banks in Austria. RLBT employs approximately 440 staff, who serve around 67,000 customers (FY 2022). In Tyrol, RLBT boasts significant market shares in the retail and private banking segment as well as in terms of SME lending. The business activities of RLBT are split into four segments: Retail Customers (retail and corporate customers), Individuals (business customers and private banking), Treasury (asset and liability management/liquidity management) and Raiffeisen banks (strategic partnership). In percentage terms, the largest shares of the loan portfolio are attributable to real estate (FY 2022: 23.9%), tourism (18.8%) and retail customers (12.8%). Geographically, 94.3% of these loans were attributable to the domestic market Austria, with Germany accounting for a share of 2.1%. Furthermore, RLBT holds a 3.7% stake in RBI (Raiffeisen Bank International), which is the central institute for the Raiffeisen Bankengruppe in Austria. The refinancing structure of RLBT consists of liabilities to banks (FY 2022: 53.7%) and to customers (23.5%), as well as securitised liabilities (22.8%). With the issuance of a covered bond in the amount of EUR 500m, RLBT placed its second Pfandbrief on the international capital market in January 2023. Over the long term, RLBT is pursuing a climate strategy aligned with the 2 degrees Celsius target of the Paris climate conference. To this end, by 2030, the bank's carbon footprint is to be reduced by 30% (excluding emissions trading) versus the level recorded in 2015.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	3,149	3,342	3,409
Total Securities	2,220	1,943	2,049
Total Deposits	2,186	2,200	2,265
Tier 1 Common Capital	460	477	487
Total Assets	9,419	10,889	10,310
Total Risk-weighted Assets	2,868	3,078	3,091

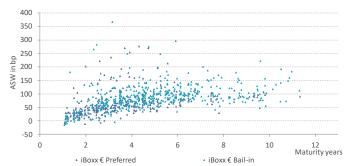
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	62	82	74
Net Fee & Commission Inc.	23	24	23
Net Trading Income	1	1	1
Operating Expense	77	74	78
Credit Commit. Impairment	4	15	4
Pro-tay Profit	16	31	28

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.72	0.83	0.72	Liquidity Coverage Ratio	134.23	132.54	138.36
ROAE	2.05	4.88	3.31	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	79.68	63.76	70.79	NPL/Loans at Amortised Cost	1.70	-	-
Core Tier 1 Ratio	16.04	15.49	15.76	Reserves/Loans at Amort. Cost	3.11	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Integration in the Raiffeisen group
- Advantage for preferred creditors (debt volume)

- Sectoral concentration risks
- RBI share (influence on the risk profile of RLBT)
- Profitability



RLB Tirol – Mortgage

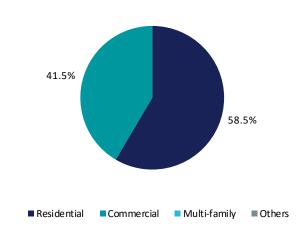
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

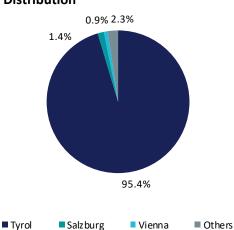
Cover Pool Data

Cover pool volume (EURm)	3,444	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,551	Rating (S&P)	-
-thereof ≥ EUR 500m	19.6%	Rating (Fitch)	-
Current OC (nominal)	35.0%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	13.4%
Main region	95% Tyrol	RRL	-
Number of loans	17,545	JRL	-
Number of borrowers	24,153	Unused notches	-
Avg. exposure to borrowers (EUR)	142,608	AAA credit risk (%)	-
WAL (cover pool)	12.7y	PCU	-
WAL (covered bonds)	8.0y	Recovery uplift	-
Fixed interest (cover pool)	32.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	54.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	51.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

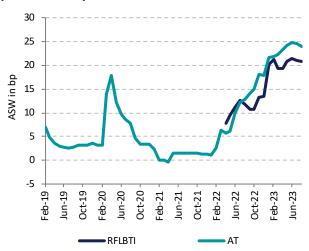
Borrower Types



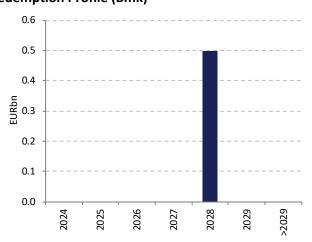
Regional Distribution



Spread Development



Redemption Profile (Bmk)





RLB Vorarlberg Waren- und Revisionsverband

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisen Landesbank Vorarlberg mit Revisionsverband eGen

	Rating	Outlook
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

www.raiffeisen.at

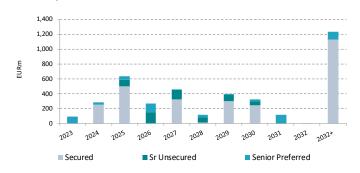
Raiffeisen Landesbank Vorarlberg (RLBV), headquartered in Bregenz, was founded in 1895 as "Verband der Sparkassen und Darlehenskassenvereine in Vorarlberg". It is the lead institute of Raiffeisen Bankengruppe Vorarlberg (RBGV) and a regional bank. The Raiffeisen Bankengruppe in Austria is structured in three tiers and comprises the local Raiffeisen banks, the regional Raiffeisen banks and Raiffeisen Bank International (RBI), with the latter as the central institute of the regional Raiffeisen banks. The eight Raiffeisen Landesbanken own roughly 59% of the lead institute RBI (RLBV holds a 2.9% stake in RBI). In terms of the ownership structure of RLBV, the Vorarlberg Raiffeisen banks hold a stake of 99.9%. In addition to 21,000 corporate customers, RLBV serves around 241,000 retail customers across a network of 69 bank branches in tandem with the local Raiffeisen banks. According to information from the bank itself, this makes RLBV the market leader in Vorarlberg. RLBV operates as a business bank in the retail and corporate client business, while it also operates as a service bank for the Raiffeisen banks. Additional business areas include the treasury (financial and capital market operations), equity participation management and the RLBV auditing association. In its function as the lead institute of RBGV, RLBV is responsible for liquidity balancing within the Group and also handles surplus settlement revenues on the financial and capital markets. Within RBGV, RLBV is responsible for regulatory coordination and compliance (e.g. LCR compliance waiver). As at FY 2022, RBGV had a market share of around 40% for both customer deposits and loans to customers. In order to achieve climateneutral operations by 2050, RLBV no longer refinances the coal and oil sectors and is working on a phase-out strategy for existing financings.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	1,648	1,757	1,846
Total Securities	1,879	1,749	1,692
Total Deposits	693	729	718
Tier 1 Common Capital	347	356	363
Total Assets	7,017	7,563	7,147
Total Risk-weighted Assets	2,211	2,272	2,309

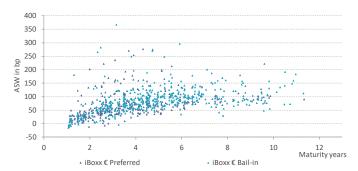
Income Statement

moonic otatoment			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	39	53	41
Net Fee & Commission Inc.	10	12	12
Net Trading Income	1	1	1
Operating Expense	50	51	54
Credit Commit. Impairment	-	-	-
Pre-tax Profit	12	43	11

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.60	0.76	0.58	Liquidity Coverage Ratio	160.58	176.10	157.99
ROAE	2.37	10.33	1.50	IFRS Tier 1 Leverage Ratio	4.96	4.73	5.10
Cost-to-Income	68.81	50.25	74.07	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	15.71	15.68	15.71	Reserves/Loans at Amort. Cost	-	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Loan quality
- Access to the Raiffeisen sector

- Profitability (dependent on equity participations)
- Risk profile (share in RBI)
- Decline in loss-absorbing liabilities



RLB Vorarlberg - Mortgage

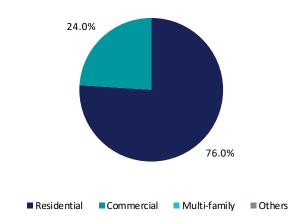
Austria =

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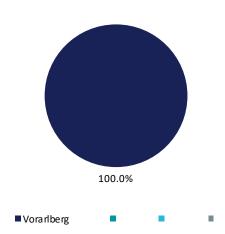
Cover Pool Data

Cover pool volume (EURm)	3,674	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,986	Rating (S&P)	-
-thereof ≥ EUR 500m	16.7%	Rating (Fitch)	-
Current OC (nominal)	23.0%	Rating (DBRS)	-
Committed OC	8.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	8.7%
Main region	100% Vorarlberg	RRL	-
Number of loans	20,133	JRL	-
Number of borrowers	15,466	Unused notches	-
Avg. exposure to borrowers (EUR)	237,521	AAA credit risk (%)	-
WAL (cover pool)	12.8y	PCU	-
WAL (covered bonds)	8.1y	Recovery uplift	-
Fixed interest (cover pool)	27.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	77.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	52.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

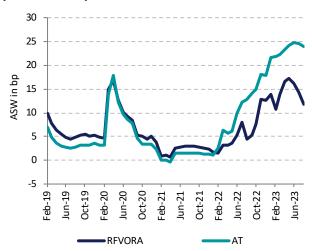
Borrower Types



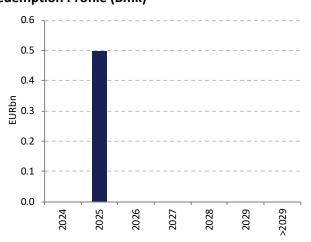
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Raiffeisen Bank International

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisen Bank International AG

	Rating	Outlook
Fitch	-	-
Moody's*	A1	Stable
S&P	A-	Negative

Homepage

www.rbinternational.com

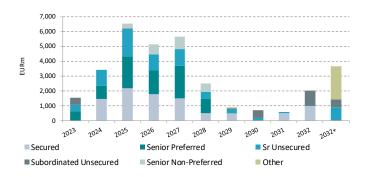
*Senior Unsecured/LT Bank Deposits Headquartered in Vienna, Raiffeisen Bank International AG (RBI) is a leading commercial and investment bank in Austria. The institute, which is listed on the Vienna stock exchange, is roughly 59% owned by the eight Raiffeisenlandesbanken (regional Raiffeisen banks) in Austria, while 41% of its shares are held in free float. A total of 327 Raiffeisen banks are represented via the eight regional Raiffeisen banks with around 1,500 branches and approximately 1.7 million members. Raiffeisenlandesbank NÖ-Wien holds the largest single share in RBI with 22.6%. RBI considers Austria and Central and Eastern Europe (CEE) to be its domestic market. In total, RBI is represented in 24 countries, of which 12 are located in the CEE region. As at Q1 2023, RBI employed more than 44,700 staff, who serve around 17.7 million customers. RBI reports across the following segments: Central Europe (share of pretax profit FY 2022: 9%), South-East Europe (14%), Eastern Europe (68%), Group Corporates & Markets (16%), Corporate Center (-1%) and Reconciliation (-6%). In 2021, the new protection system of the Raiffeisen banks was established. RBI is also part of this system, which safeguards the solvency and liquidity of the participating banks if such a need arises. RBI is also planning to further scale bank its business activities in Russia, with a sale (or spinoff) of the Russia-based business being sought in this regard. In April 2022, RBI acquired Credit Agricole Srbija and CA Leasing Srbija, while in June 2022 Raiffeisenbank Bulgaria was sold to KBC Bank for a price of EUR 1.0bn. RBI has issued green bonds since 2018. For example, since this time it has developed into Austria's largest issuer of green bonds, with an outstanding volume of around EUR 2.0bn (FY 2022).

Balance Sheet 2021Y 2022Y (EURm) 2023Q1 **Net Loans to Customers** 100,832 103,230 105,335 **Total Securities** 25,537 29,600 31,607 125,099 124,776 **Total Deposits** 115,153 15,643 15,792 Tier 1 Common Capital 15,643 207,057 210,977 **Total Assets** 192,101 Total Risk-weighted Assets 97,680 97,680 98,592

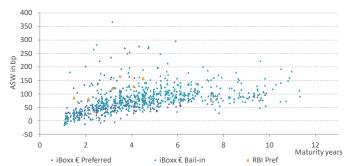
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	3,327	5,053	1,385
Net Fee & Commission Inc.	1,985	3,878	966
Net Trading Income	47	554	64
Operating Expense	3,191	3,889	1,186
Credit Commit. Impairment	302	782	252
Pro-tay Profit	1 790	4 203	877

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.89	2.54	2.71	Liquidity Coverage Ratio	153.06	189.63	208.75
ROAE	10.09	21.58	14.74	IFRS Tier 1 Leverage Ratio	8.28	7.80	7.70
Cost-to-Income	61.02	42.33	49.96	NPL/Loans at Amortised Cost	2.81	3.00	2.85
Core Tier 1 Ratio	16.01	16.01	16.02	Reserves/Loans at Amort. Cost	2.48	2.80	2.81

Source: Bloomberg. S&P Global Market Intelligence. NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in AT, CEE and SEE
- Funding profile
- Member of the Raiffeisen protection scheme

- Eastern Europe segment (Ukraine war & sanctions)
- Transparency (complex, decentralised structure)
- Competitive market in Austria



Raiffeisen Bank International – Mortgage

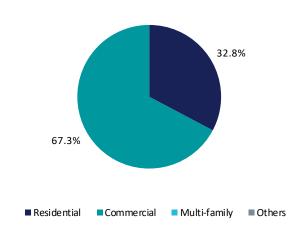
Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

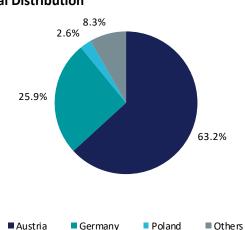
Cover Pool Data

Cover pool volume (EURm)	4,531	Rating (Moody's)	Aa1
Amount outstanding (EURm)	3,525	Rating (S&P)	-
-thereof ≥ EUR 500m	85.1%	Rating (Fitch)	-
Current OC (nominal)	28.5%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	63% Austria	Collateral score	21.7%
Main region	30% Vienna	RRL	-
Number of loans	10,297	JRL	-
Number of borrowers	9,309	Unused notches	-
Avg. exposure to borrowers (EUR)	486,733	AAA credit risk (%)	-
WAL (cover pool)	7.1y	PCU	-
WAL (covered bonds)	3.9y	Recovery uplift	-
Fixed interest (cover pool)	36.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	86.0%	LCR eligible	Yes
LTV (indexed)	50.4%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

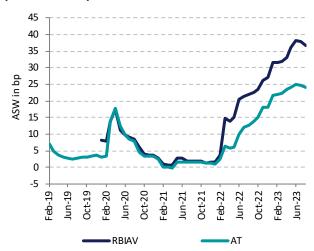
Borrower Types



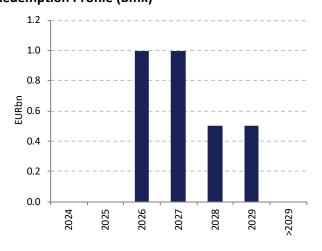
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Raiffeisenverband Salzburg

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Raiffeisenverband Salzburg eGen

	Rating	Outlool
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

www.raiffeisen.at

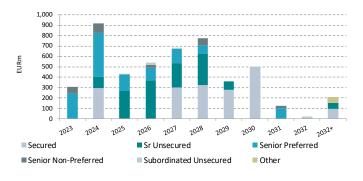
Raiffeisenverband Salzburg eGen (RVS) is the leading institute of 33 independent Raiffeisen banks in the Austrian federal state of Salzburg and one of eight regional Raiffeisen banks in Austria. RSV is 92.6% owned by these 33 Raiffeisen banks. In terms of the overall Group structure, there is the parent company, the Raiffeisenverband Salzburg, and five subsidiaries, all of which are financial institutions. The primary focus of the institute is on corporate customers, especially SMEs based in the Salzburg region and southern Bavaria. RVS offers its customers financing, investment and insurance products in addition to payment transaction and real estate services in 13 branches and two self-service branches. Moreover, RVS is the headquarters of the Lagerhaus cooperatives in Salzburg (major local supplier for consumers in the home and garden segment and agricultural enterprises). As measured by the loan portfolio, the segments of Services (FY 2022: 29.5%), Dependent Institutions (16.7%) and Tourism (12.4%) are the most important at RVS. The funding mix at RVS consists of customer deposits (FY 2022: 37%), deposits from Raiffeisen banks (22%), own issues (23%) and interbank deposits (19%). In this context, secured issues account for the majority of the funding mix at 63.3% as at FY 2022. Overall, 30 of the 33 independent Raiffeisen banks in Salzburg contribute assets to the cover pool. Over the long term, RVS plans to achieve climate-neutral core operations by 2040. Green bonds and sustainable savings products are to be issued in the future to support this transformation process.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	3,932	4,174	4,392
Total Securities	841	837	915
Total Deposits	2,981	3,107	3,343
Tier 1 Common Capital	620	662	714
Total Assets	9,108	9,699	9,789
Total Risk-weighted Assets	4,634	4,649	4,991

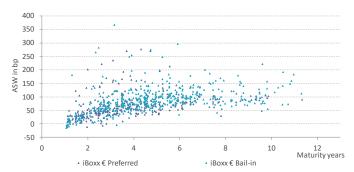
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	65	83	98
Net Fee & Commission Inc.	38	39	37
Net Trading Income	5	3	3
Operating Expense	168	173	197
Credit Commit. Impairment	-	-	-
Pre-tay Profit	30	43	53

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.84	0.96	1.09	Liquidity Coverage Ratio	181.97	135.60	152.10
ROAE	3.55	4.97	5.42	IFRS Tier 1 Leverage Ratio	6.81	6.83	7.29
Cost-to-Income	73.84	73.20	77.91	NPL/Loans at Amortised Cost	3.44	-	-
Core Tier 1 Ratio	13.38	14.25	14.31	Reserves/Loans at Amort, Cost	2.45	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Liquidity buffer
- Access to the Raiffeisen banking group
- Share of loss-absorbing liabilities

- Investment portfolio (relative ratio to capital)
- Capitalisation (risks from equity participations)
- Profitability



Raiffeisenverband Salzburg - Mortgage

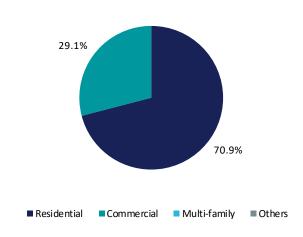
Austria =

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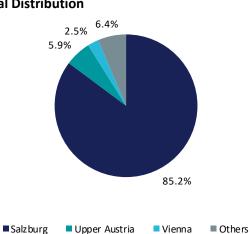
Cover Pool Data

Cover pool volume (EURm)	2,314	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,756	Rating (S&P)	-
-thereof ≥ EUR 250m	35.6%	Rating (Fitch)	-
Current OC (nominal)	31.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	11.0%
Main region	85% Salzburg	RRL	-
Number of loans	10,675	JRL	-
Number of borrowers	9,036	Unused notches	-
Avg. exposure to borrowers (EUR)	256,042	AAA credit risk (%)	-
WAL (cover pool)	13.2y	PCU	-
WAL (covered bonds)	5.4y	Recovery uplift	-
Fixed interest (cover pool)	24.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	43.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	50.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	HB & SB
Number of loans Number of borrowers Avg. exposure to borrowers (EUR) WAL (cover pool) WAL (covered bonds) Fixed interest (cover pool) Fixed interest (covered bonds) LTV (indexed) LTV (unindexed)	10,675 9,036 256,042 13.2y 5.4y 24.0% 43.0%	JRL Unused notches AAA credit risk (%) PCU Recovery uplift Outstanding ESG BMKs LCR eligible LCR level (SBmk) Risk weight	Ye 2 10

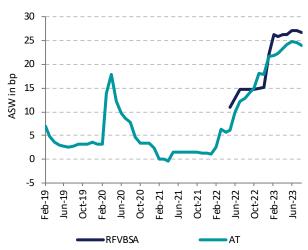
Borrower Types



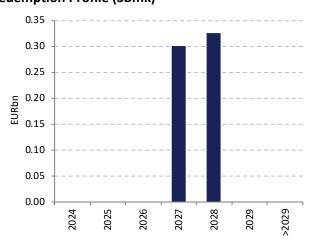
Regional Distribution



Spread Development



Redemption Profile (SBmk)





UniCredit Bank Austria

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

UniCredit Bank Austria AG

	Rating	Outlook
Fitch	-	-
Moody's*	А3	Negative
S&P	BBB+	Negative

Homepage

www.bankaustria.at

*Senior Unsecured

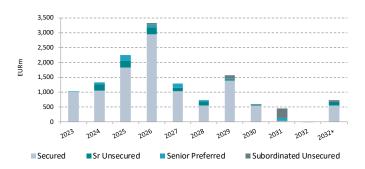
UniCredit Bank Austria AG (BA; brand name: Bank Austria) is one of the largest banks in Austria in terms of its balance sheet total. It has been part of the Italian UniCredit Group (UC) since 2005. With total assets of EUR 917bn (as at FY 2022), UC is among the largest banks in the world and is considered a global systemically important bank (G-SIB; additional capital buffer of 1.0%) in line with the Financial Stability Board's definition. BA employs around 4,900 staff and operates a branch network of 106 service centres to serve around 1.5 million retail customers and small business customers, corporates (EUR 1,0bn in sales), institutional customers and the public sector. In addition, wealth management and private banking services are also offered. According to information from the bank itself, BA boasts a leading position in Austria for corporate and private banking as well as in the area of wealth management. As at December 2022, the market share in loans and deposits was 12% in each case. In order to streamline BA's organisational structure, the bank reports across the following segments since 01 January 2022: Retail (formerly retail customer bank), Wealth Management & Private Banking (formerly part of the retail customer bank segment), Corporates (formerly Corporate & Investment Banking/CIB and entrepreneur bank) and Corporate Center. The highest shares of operating earnings by segment are attributable to Corporates (51% as at FY 2022) and Retail (39%). In addition to a covered bond in EUR benchmark format in September 2022, BA issued an inaugural green covered bond with a volume of EUR 500m in May 2022.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	62,236	69,013	68,349
Total Securities	17,081	15,161	16,747
Total Deposits	61,497	64,643	63,007
Tier 1 Common Capital	6,324	6,097	6,188
Total Assets	118,510	118,404	107,332
Total Risk-weighted Assets	31,464	36,220	35,607

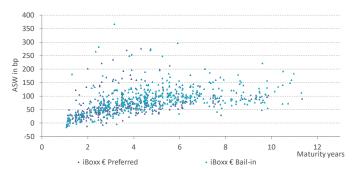
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	907	864	1,078
Net Fee & Commission Inc.	653	697	685
Net Trading Income	51	102	117
Operating Expense	1,334	1,578	1,224
Credit Commit, Impairment	398	166	23
Pre-tax Profit	-32	93	684

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.86	0.76	0.99	Liquidity Coverage Ratio	192.15	199.93	171.11
ROAE	0.18	1.21	8.96	IFRS Tier 1 Leverage Ratio	5.51	5.26	6.01
Cost-to-Income	73.42	80.96	59.45	NPL/Loans at Amortised Cost	3.50	2.94	3.27
Core Tier 1 Ratio	20.10	16.83	17.38	Reserves/Loans at Amort. Cost	2.26	2.16	2.19

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Position in domestic market (corporate banking)
- Capitalisation
- Earnings situation

- Risks from interrelationship with parent company
- Cost efficiency
- Concentration risks (real estate, equity participations)



UniCredit Bank Austria - Mortgage

Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

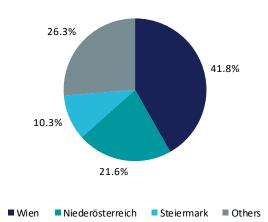
Cover Pool Data

Cover pool volume (EURm)	17,135	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,473	Rating (S&P)	-
-thereof ≥ EUR 500m	66.0%	Rating (Fitch)	-
Current OC (nominal)	80.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Austria	Collateral score	8.9%
Main region	42% Wien	RRL	-
Number of loans	64,577	JRL	-
Number of borrowers	55,099	Unused notches	-
Avg. exposure to borrowers (EUR)	310,984	AAA credit risk (%)	-
WAL (cover pool)	10.3y	PCU	-
WAL (covered bonds)	4.3y	Recovery uplift	-
Fixed interest (cover pool)	42.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	73.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	48.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

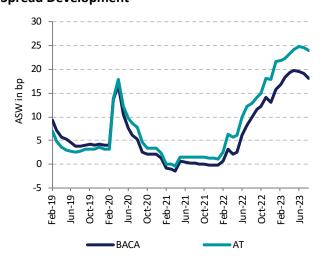
Borrower Types

26.0% 74.0% Residential Commercial Multi-family Oth

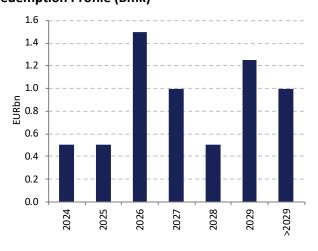
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Volksbank Wien

Austria



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Volksbank Wien AG

	Rating	Outlook
Fitch	BBB+	Stable
Moody's*	A2	Stable
S&P	-	-

Homepage

www.volksbankwien.at

*LT Bank Deposits

Volksbank Wien AG (VBW) is the central organisation of the nine Austrian Volksbanks and is the largest regional Volksbank in terms of total assets. VBW is responsible for control and management functions for the association of Volksbanks (VB-Verbund) as a whole. After repayment of the Government Participation Rights, previously held by the Republic of Austria (25% share) in December 2022, the ownership structure of VBW is largely centred around the association's member banks as well as holding cooperatives. In FY 2022, the VB-Verbund served 990,000 customers in 236 branches, of which 308,000 alone were served by 54 VBW branches. Reporting is conducted across the following segments: Retail (retail customers, SMEs and commercial customers), ZO (Central Organisation; VBW's activities as the central institute for the Group and Treasury are bundled here) and Consolidation. The business model is primarily focused on retail customers and SMEs in Austria. For example, 39% of the loan portfolio is accounted for by Real Estate, followed by Retail Private at 37% and Corp/SME at 23%, with the Public Sector taking a share of just 1% (FY 2022). The geographical focus is on Austria, where the majority of customer loans are granted, followed by Germany. Together with the regional Volksbanks and Österreichische Ärzte- und Apothekerbank AG, VBW has formed a joint liability association, whereby the funding mix of the association comprises other deposits (62%; FY 2022), savings deposits (24%), liabilities to banks (7%) and securitised liabilities (7%). VBW is also active in the field of ESG financing. For example, VBW issued its inaugural green bond worth EUR 500m in 2023.

Balance Sheet						
(EURm)	2020Y	2021Y	2022Y			
Net Loans to Customers	5,372	5,396	5,481			
Total Securities	2,475	2,241	2,411			
Total Deposits	6,637	6,922	6,765			
Tier 1 Common Capital	656	648	682			
Total Assets	14.281	16.925	14.467			

3,909

3,835

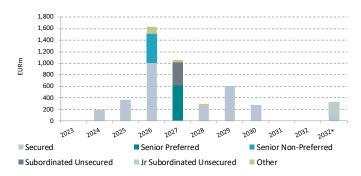
4,032

Income Statement

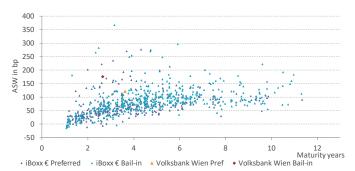
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	116	126	130
Net Fee & Commission Inc.	57	59	60
Net Trading Income	-1	7	-5
Operating Expense	206	211	213
Credit Commit, Impairment	-	-	-
Pre-tax Profit	50	112	55

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.89	0.83	0.85	Liquidity Coverage Ratio	175.43	231.76	180.70
ROAE	3.42	11.47	7.62	IFRS Tier 1 Leverage Ratio	4.77	3.91	4.84
Cost-to-Income	72.68	68.81	76.85	NPL/Loans at Amortised Cost	2.28	2.07	1.97
Core Tier 1 Ratio	16.78	16.89	16.93	Reserves/Loans at Amort. Cost	1.49	1.18	2.54

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Funding
- NPL ratio
- Capitalisation

- Concentration risks (real estate & tourism)
- Efficiency
- Geographical diversification



Volksbank Wien – Mortgage

Austria =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

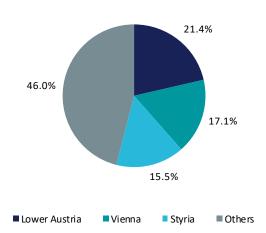
Cover Pool Data

5,287	Rating (Moody's)	Aaa
2,502	Rating (S&P)	-
40.0%	Rating (Fitch)	-
111.3%	Rating (DBRS)	-
2.0%	TPI	Probable-High
Mortgage	TPI leeway	3
100% Austria	Collateral score	8.1%
21% Lower Austria	RRL	-
37,557	JRL	-
31,436	Unused notches	-
168,189	AAA credit risk (%)	-
19.0y	PCU	-
4.4y	Recovery uplift	-
57.0%	Outstanding ESG BMKs	No
51.4%	LCR eligible	Yes
58.1%	LCR level (Bmk)	1
64.5%	Risk weight	10%
0.0%	Maturity structure (Bmk)	НВ
	2,502 40.0% 111.3% 2.0% Mortgage 100% Austria 21% Lower Austria 37,557 31,436 168,189 19.0y 4.4y 57.0% 51.4% 58.1% 64.5%	2,502 Rating (S&P) 40.0% Rating (Fitch) 111.3% Rating (DBRS) 2.0% TPI Mortgage TPI leeway 100% Austria Collateral score 21% Lower Austria RRL 37,557 JRL 31,436 Unused notches 168,189 AAA credit risk (%) 19.0y PCU 4.4y Recovery uplift 57.0% Outstanding ESG BMKs 51.4% LCR eligible 58.1% LCR level (Bmk) 64.5% Risk weight

Borrower Types

27.2% 72.8% Residential Commercial Multi-family Oth

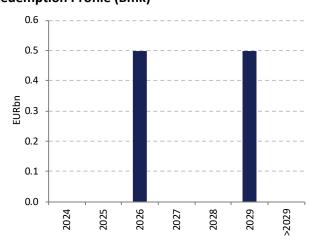
Regional Distribution



Spread Development



Redemption Profile (Bmk)





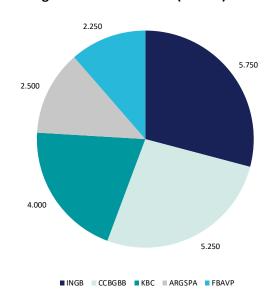
Market Overview Covered Bonds

Belgium **II**

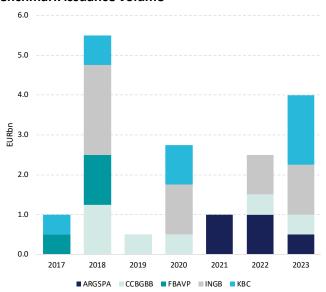
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 51.69bn	Outstanding volume (Bmk)	EUR 19.75bn
Amount outstanding	EUR 39.12bn	Number of benchmarks	28
Number of issuer	5	Outstanding ESG volume (Bmk)	-
No of cover pools	6	Number of ESG benchmarks	-
there of M / PS / others	5/1/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	SB

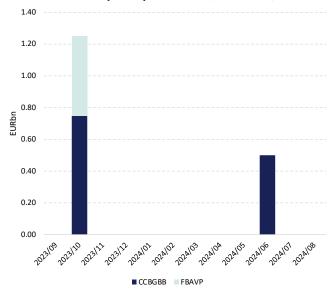
Outstanding benchmark volume¹ (EURbn)



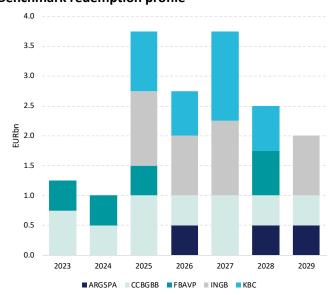
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Argenta Spaarbank

Belgium I



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Argenta Spaarbank NV

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	Α	Stable

Homepage

www.argenta.eu

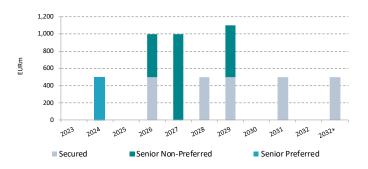
Argenta Spaarbank N.V. is part of the Belgian Argenta Group (Argenta Bank- en Verzekeringsgroep N. V.; HoldCo) and offers retail banking services, primarily in Belgium and the Netherlands. Argenta Spaarbank also offers insurances services via Argenta Assuranties. According to information from the bank itself, Argenta Spaarbank, which was founded in 1956 and operates 406 branches (as at FY 2022), is the fifth-largest bank in Belgium (as measured by customer deposits) and serves more than 1.7 million customers. Investar (holding company of the founding family; stake of around 87%) and Argen-Co (via cooperative capital on the part of employees and customers; share of 13%; data as at FY 2022 in each case) are the only shareholders. Within the Argenta Group, Argenta Spaarbank is the unit responsible for capital market refinancing activities. The largest shares of the credit portfolio are attributable to mortgage loans in the Netherlands, at 50% (FY 2022; of which 21% come with a National Mortgage Guarantee), followed by Belgium at 46% (remaining 4% accounted for by "Other"). In 2022, two benchmark covered bonds and two benchmark green bonds respectively were issued in an attempt to diversify the refinancing activities (retail funding share as at FY 2022: 79%; wholesale funding share: 12%). A few years ago Argenta has become active as a covered bond and green bond issuer. It placed an inaugural EUR benchmark covered bond in February 2021. The first green bonds followed the publication of the Green Bond Framework in January 2022. These are intended to refinance among others sustainable buildings in Belgium and the Netherlands.

Balance Sheet							
(EURm)	2020Y	2021Y	2022Y				
Net Loans to Customers	33,882	36,620	39,461				
Total Securities	8,159	7,805	10,187				
Total Deposits	38,319	40,280	42,184				
Tier 1 Common Capital	2,265	2,354	2,363				
Total Assets	46,232	48,738	53,391				
Total Risk-weighted Assets	9 712	10 907	11 017				

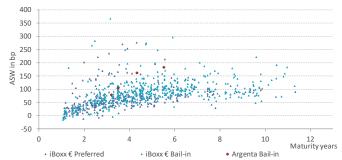
Income Statement

(EURm)	2020Y	2021Y	2022Y			
Net Interest Income	569	579	575			
Net Fee & Commission Inc.	-15	17	50			
Net Trading Income	-1	-4	-11			
Operating Expense	391	402	433			
Credit Commit, Impairment	14	-2	14			
Pre-tax Profit	195	250	246			

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.29	1.23	1.14	Liquidity Coverage Ratio	158.82	164.27	186.01
ROAE	6.18	7.72	8.05	IFRS Tier 1 Leverage Ratio	5.00	4.89	4.45
Cost-to-Income	64.91	63.07	65.78	NPL/Loans at Amortised Cost	0.51	0.47	0.42
Core Tier 1 Ratio	23.32	21.59	21.45	Reserves/Loans at Amort. Cost	0.11	0.09	0.11

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Loan quality
- Business focus (retail banking)

- Concentration risks
- Interest rate environment
- Digitalisation costs



Argenta Spaarbank – Mortgage

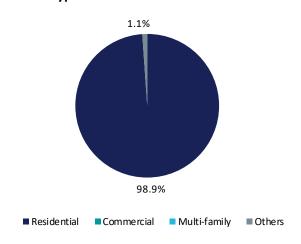
Belgium **II**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

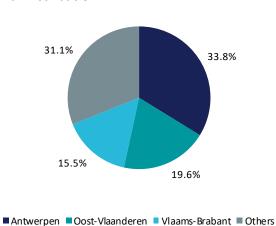
Cover Pool Data

Cover pool volume (EURm)	2,455	Rating (Moody's)	-
Amount outstanding (EURm)	2,000	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	22.8%	Rating (DBRS)	-
Committed OC	5.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Belgium	Collateral score	-
Main region	34% Antwerpen	RRL	aa-
Number of loans	27,326	JRL	aa
Number of borrowers	n/a	Unused notches	4
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.0%
WAL (cover pool)	9.5y	PCU	-
WAL (covered bonds)	9.0y	Recovery uplift	-
Fixed interest (cover pool)	32.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	53.4%	LCR level (Bmk)	1
LTV (unindexed)	63.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

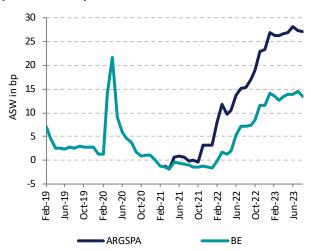
Borrower Types



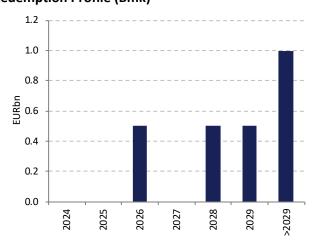
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Belfius Bank

Belgium **III**



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Belfius Bank SA

	Rating	Outlook
Fitch	A-	Stable
Moody's*	A1	Positive
S&P	Α	Stable

Homepage

www.belfius.be

*Senior Unsecured/LT Bank Deposits

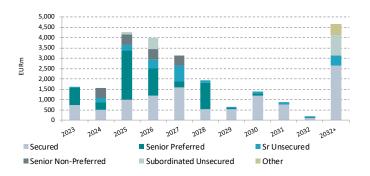
Belfius Bank (Belfius) is a domestic systemically important bank (D-SIB) and insurance group (additional capital buffer: 1.5%). Since October 2011, it has been wholly owned by the Belgian state. In terms of assets, Belfius is the third largest bank in Belgium (FY 2022) and serves more than 3.8 million customers. The customer base includes nearly one third of the Belgian population and half of all Belgian companies. Moreover, with 12,000 customers in the public sector, Belfius is the market leader in this area. The Group includes seven important, wholly owned subsidiaries: Belfius Insurance, Crefius, Belfius Auto Lease, Belfius Lease, Belfius Lease Services, Belfius Investment Partners and Belfius Commercial Finance. The loan portfolio consists of public sector and social loans (25% as at FY 2022), corporate and business loans (42%) as well as mortgage (29%) and consumer loans (4%). Belfius is actually the second-largest provider of mortgage loans on the Belgian market. Belfius reports across the following segments: Individuals (52% share of pre-tax profit in 2022), Entrepreneurs, Enterprises & Public (47%) and Group Center (1%). The Group Center mainly controls the administration of the bond and derivatives portfolio. The vast majority of the funding mix is attributable to deposits (84% as at FY 2022) and secured funding (9%). At 51%, covered bonds account for the majority of secured funding. Funding is also supplemented by an outstanding green bond (EUR 500m). In the long term, Belfius's business activities are geared towards the Paris climate agreement. In order to achieve this climate goal, Belfius will no longer finance coal mining, among other activities.

Balance Sheet							
(EURm)	2020Y	2021Y	2022Y				
Net Loans to Customers	98,108	102,679	110,311				
Total Securities	49,482	44,002	34,024				
Total Deposits	95,338	104,404	108,447				
Tier 1 Common Capital	10,150	10,658	10,722				
Total Assets	187,991	192,151	179,466				
Total Risk-weighted Assets	59,309	65,095	64,796				

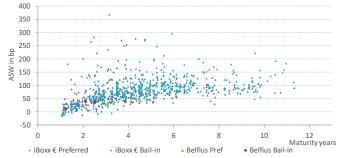
Income Statement

(EURm)	2020Y	2021Y	2022Y			
Net Interest Income	1,992	2,001	2,080			
Net Fee & Commission Inc.	641	758	790			
Net Trading Income	37	25	20			
Operating Expense	1,465	1,477	1,620			
Credit Commit, Impairment	453	-1	106			
Pre-tax Profit	679	1.226	1.255			

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.12	1.07	1.14	Liquidity Coverage Ratio	159.57	194.42	172.66
ROAE	5.01	8.42	8.44	IFRS Tier 1 Leverage Ratio	6.01	6.00	6.22
Cost-to-Income	56.05	54.64	54.56	NPL/Loans at Amortised Cost	2.06	1.98	1.85
Core Tier 1 Ratio	17.11	16.37	16.55	Reserves/Loans at Amort. Cost	1.85	1.71	1.63

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Asset risk (focus on the upmarket Belgian market)
- Capitalisation
- Funding structure

- Concentration risk in the state financing portfolio
- Geographical diversification
- Operational environment (inflation)



Belfius Bank - Mortgage

Belgium **II**



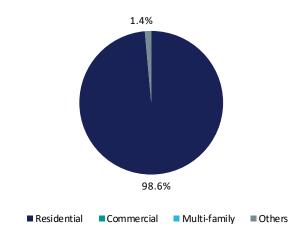
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

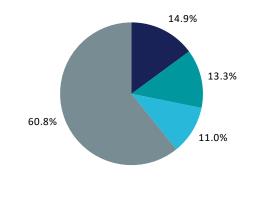
Cover Pool Data

12,126	Rating (Moody's)	-
9,992	Rating (S&P)	AAA
35.0%	Rating (Fitch)	AAA
21.4%	Rating (DBRS)	-
5.0%	TPI	-
Mortgage	TPI leeway	-
100% Belgium	Collateral score	-
15% Antwerpen	RRL	aa-
220,243	JRL	aa
130,533	Unused notches	4
91,568	AAA credit risk (%)	4.4%
6.8y	PCU	6
6.1y	Recovery uplift	2
87.8%	Outstanding ESG BMKs	No
100.0%	LCR eligible	Yes
39.2%	LCR level (Bmk)	1
51.0%	Risk weight	10%
0.0%	Maturity structure (Bmk)	SB
	9,992 35.0% 21.4% 5.0% Mortgage 100% Belgium 15% Antwerpen 220,243 130,533 91,568 6.8y 6.1y 87.8% 100.0% 39.2% 51.0%	9,992 Rating (S&P) 35.0% Rating (Fitch) 21.4% Rating (DBRS) 5.0% TPI Mortgage TPI leeway 100% Belgium Collateral score 15% Antwerpen RRL 220,243 JRL 130,533 Unused notches 91,568 AAA credit risk (%) 6.8y PCU 6.1y Recovery uplift 87.8% Outstanding ESG BMKs 100.0% LCR eligible 39.2% LCR level (Bmk) 51.0% Risk weight

Borrower Types

Regional Distribution



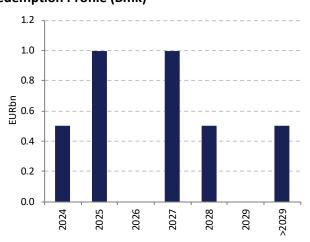


■ Antwerpen ■ Oost-Vlaanderen ■ Vlaams-Brabant ■ Others

Spread Development

25 20 ASW in bp 10 5 Oct-21 CCBGBB

Redemption Profile (Bmk)





Belfius Bank - Public Sector

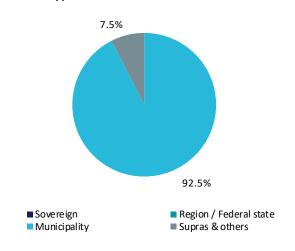
Belgium **II**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

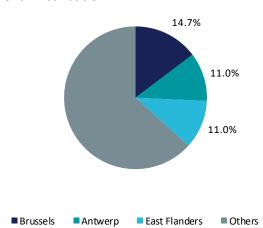
Cover Pool Data

Cover pool volume (EURm)	1,686	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,211	Rating (S&P)	AAA
-thereof ≥ EUR 500m	82.6%	Rating (Fitch)	-
Current OC (nominal)	39.2%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Public Sector	TPI leeway	4
Main country	100% Belgium	Collateral score	7.9%
Main region	15% Brussels	RRL	aa-
Number of loans	18,445	JRL	aa
Number of borrowers	626	Unused notches	2
Avg. exposure to borrowers (EUR)	2,679,983	AAA credit risk (%)	-
WAL (cover pool)	6.3y	PCU	-
WAL (covered bonds)	6.3y	Recovery uplift	-
Fixed interest (cover pool)	86.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

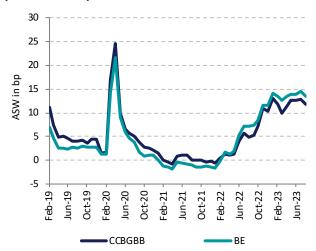
Borrower Types



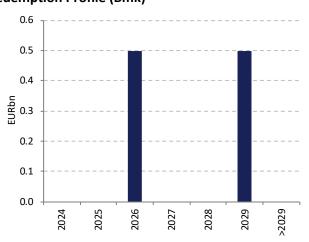
Regional Distribution



Spread Development



Redemption Profile (Bmk)





BNP Paribas Fortis

Belgium **III**



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

BNP Paribas Fortis SA

	Rating	Outlook
Fitch	A+	Stable
Moody's*	A2	Stable
S&P	A+	Stable

Homepage

www.bnpparibasfortis.com

*Senior Unsecured

BNP Paribas Fortis SA (BNPPF), headquartered in Brussels, employs approximately 12,000 staff in Belgium and more than 22,500 in other countries. It was established from Fortis Bank Belgium SA, which in turn was taken over by the Belgium government in the wake of the financial crisis in 2008. BNP Paribas acquired a stake of 75% in Fortis in 2009. BNPPF has traded under its current name since 2013. BNPPF is today practically wholly owned (99.94%) by the French bank BNP Paribas SA (global systemically important bank [G-SIB] with additional capital buffer of 1.5%). BNPPF covers both the Retail Banking and Corporate & Institutional Banking activities of the BNP Group in Belgium. Reporting is conducted across the following segments: Banking Activities in Belgium (35% of pre-tax profit as at FY 2022), Banking Activities in Luxembourg (7%), Banking Activities in Turkey (8%), Specialised Business (44%) and Other (5%). In Belgium, BNPPF serves 3.4 million retail customers in 342 branches and 16 entrepreneur centres. Following a digitalisation project, BNPPF is also implementing an expanded range of online products. For example, the focus in this regard is on its digital bank Hello Bank! BNPPF is represented by its subsidiary Arval, which boasts a leading market position in Europe in the mobility and vehicle leasing segment. At the end of 2022, Arval was active in 30 countries with around 8,000 employees. Overall, the subsidiary leases around 1.6 million vehicles (of which around 300,000 are electric). By 2025, the global fleet is expected to grow to 700,000 electrified leased vehicles. On 3 January 2022, BNPPF acquired the remaining shares (50%) in bpost Bank. This transaction increased BNPPF's total assets by approximately EUR 12bn.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	188,846	194,170	216,841
Total Securities	46,774	36,933	36,879
Total Deposits	193,770	199,037	212,692
Tier 1 Common Capital	21,504	21,704	21,084
Total Assets	335,135	341,648	350,392
Total Risk-weighted Assets	135,506	120,884	122,520

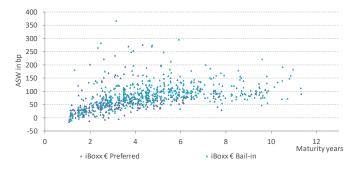
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	4,752	4,694	4,866
Net Fee & Commission Inc.	1,274	1,395	1,410
Net Trading Income	182	214	430
Operating Expense	4,542	4,577	5,072
Credit Commit, Impairment	662	357	325
Pre-tax Profit	2.883	3.813	4.835

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.68	1.58	1.61	Liquidity Coverage Ratio	191.00	191.99	158.74
ROAE	7.91	10.03	11.65	IFRS Tier 1 Leverage Ratio	6.78	6.56	6.26
Cost-to-Income	56.07	52.31	50.93	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	15.87	17.95	17.21	Reserves/Loans at Amort. Cost	1.60	1.51	1.36

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Core subsidiary of the BNP Group (support)
- Capitalisation
- Liquidity

- Geographical concentration risks (Luxembourg)
- Share of leasing transactions in the business mix
- Profitability (margins in Belgium)



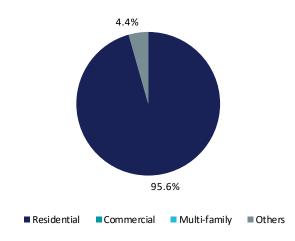
BNP Paribas Fortis - Mortgage

Belgium **II**

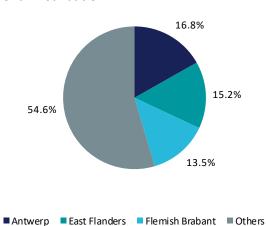
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover pool volume (EURm)	2,923	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,250	Rating (S&P)	AAA
-thereof ≥ EUR 500m	77.8%	Rating (Fitch)	-
Current OC (nominal)	29.9%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Belgium	Collateral score	5.0%
Main region	17% Antwerp	RRL	aa
Number of loans	43,922	JRL	aa
Number of borrowers	23,377	Unused notches	4
Avg. exposure to borrowers (EUR)	119,535	AAA credit risk (%)	3.4%
WAL (cover pool)	7.3y	PCU	-
WAL (covered bonds)	2.5y	Recovery uplift	-
Fixed interest (cover pool)	93.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	48.5%	LCR level (Bmk)	1
LTV (unindexed)	57.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

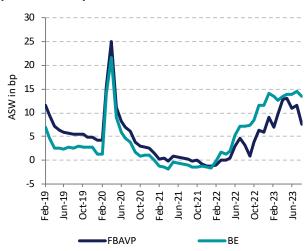
Borrower Types



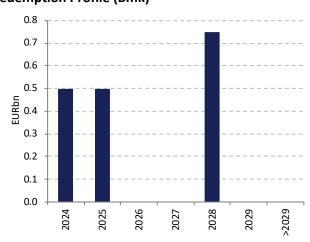
Regional Distribution



Spread Development



Redemption Profile (Bmk)





ING Belgium

Belgium **III**



2022Y 2,069 661 240 1,966 230 454

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ING Belgium SA

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A1	Stable
S&P	-	-

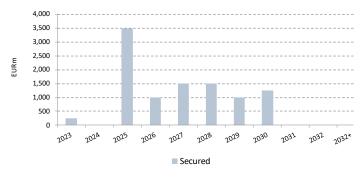
Homepage

www.ing.be

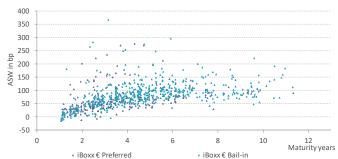
ING Belgium SA/NV (headquarters: Brussels) operates as a universal bank and is a wholly owned subsidiary of the Dutch ING Bank (ING: global systemically important bank [G-SIB]) and therefore forms part of the ING Group. It is one of the four largest banks in Belgium and ranks as a national systemically important bank. In addition to its domestic market, ING Belgium also offers a variety of financial and banking services in Luxembourg. ING Belgium focuses on the three areas of Retail Banking, Business Banking and Wholesale Banking. It forms an important strategic unit within the ING Group. Although ING Bank has provided neither a letter of comfort (LoC) nor implemented a loss absorption mechanism, due to the high level of relevance of ING Belgium within the Group, support from the parent company is likely. The largest items in the loan portfolio, which totals EUR 154bn (FY 2022) overall, are attributable to the domestic market (73%), in addition to Luxembourg (11%), the Netherlands (4%) and the rest of Europe (9%). Within the loan portfolio, a distinction is made between retail banking (62%) and wholesale banking (38%). In 2021, ING Belgium formulated a new strategy (Route 24), which essentially aims to streamline the business through digitization (strengthening online and mobile banking and more targeted advice in branches, as well as digital offerings via video banking). The bank is also keen to enhance its sustainability strategy. For example, in 2021, ING adjusted its 2-degree climate target in line with the Paris climate agreement to realign with the 1.5-degree climate target defined by the Net-Zero Banking Alliance. In terms of its own operations, in FY 2022 ING Belgium cut its carbon footprint in comparison with 2014 by 69%.

Balance Sheet	Income Statement					
(EURm)	2020Y	2021Y	2022Y	(EURm)	2020Y	2021Y
Net Loans to Customers	102,392	105,266	107,351	Net Interest Income	2,080	2,066
Total Securities	23,464	21,294	31,608	Net Fee & Commission Inc.	526	650
Total Deposits	109,052	109,178	109,525	Net Trading Income	117	227
Tier 1 Common Capital	8,785	9,116	8,767	Operating Expense	1,946	1,872
Total Assets	162,258	161,757	165,762	Credit Commit, Impairment	589	184
Total Risk-weighted Assets	57,811	54,024	50,214	Pre-tax Profit	268	948

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.30	1.29	1.28	Liquidity Coverage Ratio	200.44	161.76	136.08
ROAE	1.77	6.99	3.38	IFRS Tier 1 Leverage Ratio	5.78	5.93	5.92
Cost-to-Income	69.13	61.98	64.82	NPL/Loans at Amortised Cost	3.96	3.27	3.22
Core Tier 1 Ratio	15.20	16.87	17.46	Reserves/Loans at Amort. Cost	1.19	1.13	1.19

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Diversified credit portfolio (retail & corporates)
- Capitalisation

- NPL ratio (for a bank focused on BE and LU)
- **Profitability**



ING Belgium – Mortgage

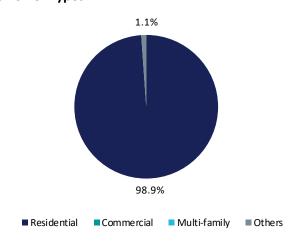
Belgium **II**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

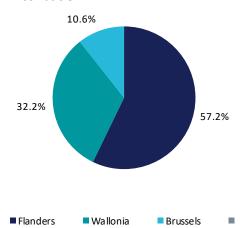
Cover Pool Data

Cover pool volume (EURm)	13,450	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,750	Rating (S&P)	-
-thereof ≥ EUR 500m	59.0%	Rating (Fitch)	AAA
Current OC (nominal)	37.9%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Belgium	Collateral score	5.0%
Main region	57% Flanders	RRL	-
Number of loans	117,004	JRL	-
Number of borrowers	101,340	Unused notches	-
Avg. exposure to borrowers (EUR)	131,245	AAA credit risk (%)	-
WAL (cover pool)	7.5y	PCU	6
WAL (covered bonds)	3.8y	Recovery uplift	2
Fixed interest (cover pool)	88.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	55.5%	LCR level (Bmk)	1
LTV (unindexed)	63.6%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



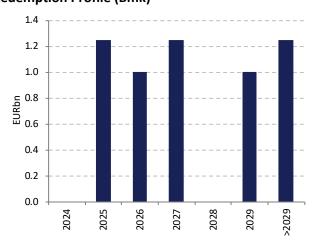
Regional Distribution



Spread Development



Redemption Profile (Bmk)





KBC Bank

Belgium **III**



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

KBC Bank NV

	Rating	Outlook
Fitch	A+	Stable
Moody's*	Aa3	Stable
S&P	A+	Stable

Homepage

www.kbc.com

*LT Bank Deposits

KBC Bank NV (KBC) is the banking arm of KBC Group NV, to which KBC Insurance NV also belongs. The KBC Group is listed on the stock exchange, where its largest shareholders as at 31 December 2022 include KBC Ancora (18.6%) and MRBB (11.5%). KBC is one of the leading banking groups in Belgium and is a domestic systemically important bank (D-SIB). The KBC Group operates around 1,200 bank branches, where its 42,000 employees serve approximately 13 million customers. According to its own information, KBC has a market share of around 20% for banking products and 28% for investment funds as at FY 2022. The bank is represented on the market for banking products in the Czech Republic via Ceskoslovenska Obchodni Banka (CSOB) with a share of 21%. KBC operates as a multichannel bank, focusing on retail and private banking clients in addition to SMEs and midmarket customers. Its geographic focus is on the core markets of Belgium, Bulgaria, Czech Republic, Hungary and Slovakia. The Group reports across the segments Belgium Business Unit, Czech Republic Business Unit, International Markets Business Unit and Group Centre. With a share of 53% (FY 2022), the significance of the Belgian domestic market is clear from the geographical breakdown of the loan portfolio. Czech Republic follows thereafter with a share of 18%. Customer deposits account for the majority of the funding mix (nearly 73% in FY 2022). The acquisition of Raiffeisenbank (Bulgaria) EAD announced on 15 November 2021 at a price of just over EUR 1.0bn was concluded on 7 July 2022. In addition, KBC issued an inaugural social bond (EUR 750m) in 2022, whereby the proceeds are to be invested in the healthcare sector.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	158,075	158,113	176,872
Total Securities	61,170	54,828	54,314
Total Deposits	191,629	201,026	225,853
Tier 1 Common Capital	14,085	14,915	13,702
Total Assets	284,399	302,991	322,088
Total Risk-weighted Assets	92,903	95,120	100,300

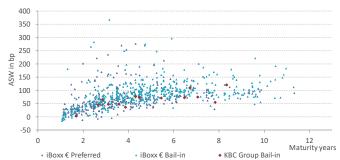
Income Statement

moonic otatoment			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	4,015	4,054	4,724
Net Fee & Commission Inc.	1,975	2,210	2,256
Net Trading Income	50	46	304
Operating Expense	3,809	3,905	4,308
Credit Commit, Impairment	1,069	-330	152
Pre-tax Profit	1.188	2.816	2.668

Redemption Profile (KBC Group)



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.53	1.44	1.59	Liquidity Coverage Ratio	146.88	166.12	151.15
ROAE	5.72	12.34	12.08	IFRS Tier 1 Leverage Ratio	5.10	5.04	4.38
Cost-to-Income	62.12	60.80	60.66	NPL/Loans at Amortised Cost	3.65	3.09	2.22
Core Tier 1 Ratio	15.16	15.68	13.66	Reserves/Loans at Amort. Cost	2.29	1.61	1.46

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Earning power
- Capitalisation
- Liquidity

- Operational risk linked to acquisitions in Bulgaria
- **Exposure in CEE**
- Risk concentration (SME)



KBC Bank - Mortgage

Belgium **II**

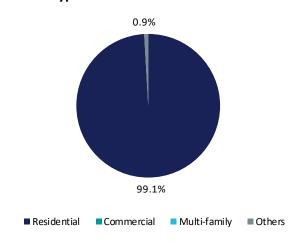


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

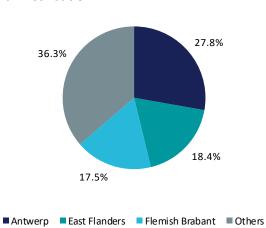
Cover Pool Data

Cover pool volume (EURm)	19,048	Rating (Moody's)	Aaa
Amount outstanding (EURm)	13,920	Rating (S&P)	-
-thereof ≥ EUR 500m	28.7%	Rating (Fitch)	AAA
Current OC (nominal)	36.8%	Rating (DBRS)	-
Committed OC	10.5%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Belgium	Collateral score	5.9%
Main region	28% Antwerp	RRL	-
Number of loans	223,887	JRL	-
Number of borrowers	149,696	Unused notches	-
Avg. exposure to borrowers (EUR)	126,099	AAA credit risk (%)	-
WAL (cover pool)	8.5y	PCU	6
WAL (covered bonds)	3.6y	Recovery uplift	2
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	63.1%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

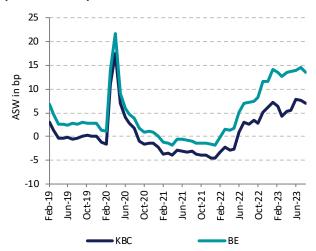
Borrower Types



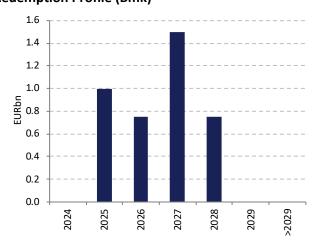
Regional Distribution



Spread Development



Redemption Profile (Bmk)





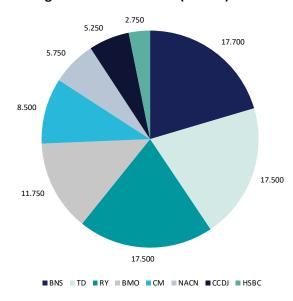
Market Overview Covered Bonds

Canada *

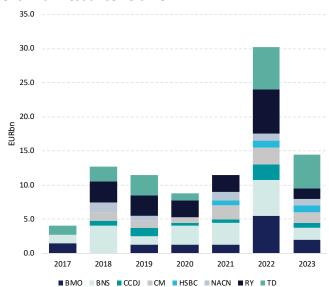
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 278.42bn	Outstanding volume (Bmk)	EUR 86.70bn
Amount outstanding	EUR 173.20bn	Number of benchmarks	64
Number of issuer	9	Outstanding ESG volume (Bmk)	-
No of cover pools	9	Number of ESG benchmarks	-
there of M / PS / others	9/0/0	Outstanding volume (SBmk)	EUR 1.20bn
Ratings (low / high)	AA / AAA	Number of subbenchmarks	4
Best possible LCR level	Level 2A	Maturity types	SB

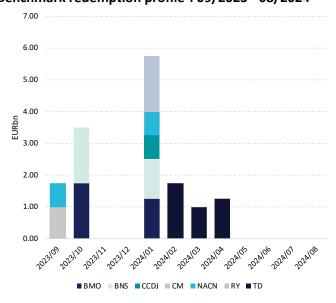
Outstanding benchmark volume¹ (EURbn)



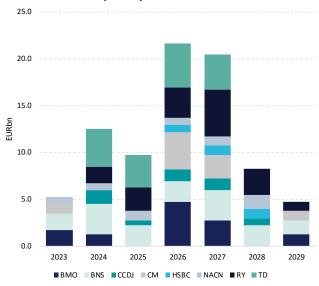
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Bank of Montreal

Canada | *



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank of Montreal

	Rating	Outlook
Fitch	AA-	Stable
Moody's*	Aa2	Stable
S&P	A+	Stable

Homepage

www.bmo.com

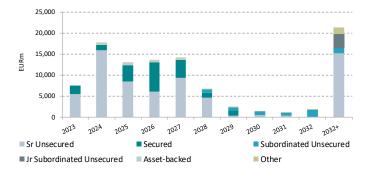
Bank of Montreal (BMO) is Canada's oldest bank. As measured by total assets (FY 2022), it is the fourth largest bank in the country and the eighth largest bank in North America. Its main shareholder of listed BMO is BlackRock with 10.0% (18 July 2023). BMO is classified as a domestic systemically important bank (D-SIB) and its geographical focus is on North America. Here, its market position has been significantly strengthened as a result of the acquisition of the US bank Bank of the West which was concluded in February 2023 (announcement: December 2021; USD 16.3bn purchase price, USD 95bn assets, USD 58bn loans, USD 80bn deposits). BMO offers a broad product palette, ranging from retail and commercial banking to asset management, up to investment banking and the insurance business. BMO's 1,380 branches (Q1 2023) and nearly 47,000 employees serve more than 12 million customers worldwide. BMO's activities are divided into the core segments Personal and Commercial Banking (P&C; FY 2022: 48.0% of operating income), BMO Capital Markets (18.3%) and BMO Wealth Management (13.4%). The segment Corporate Services (20.3%) includes areas such as risk management and strategic planning. The loan portfolio is divided between the regions Canada and other (65.6%, of which 3.2% other countries) as well as the USA (34.4%). As at Q1 2023, the share of the loan portfolio amounted to 27% for residential property and 10% for commercial property. The lion's share of the funding mix consists of deposits. Wholesale funding amounts to CAD 251bn. Of this, the shares in unsecured and secured funding amount to 74% and 26% respectively (of which 46% are covered bonds). BMO's financial year ends on 31 October.

Balance Sheet (EURm) 2021Y 2022Y 2023H1 Net Loans to Customers 319,754 409,122 424,360 262,019 321,089 310,467 **Total Securities** 547,718 563,028 **Total Deposits** 459,673 34,346 Tier 1 Common Capital 31,033 45,156 **Total Assets** 689,261 844,813 835,797 Total Risk-weighted Assets 226,993 269,935 280,624

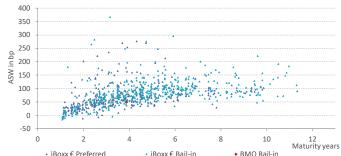
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	9,533	11,557	6,140
Net Fee & Commission Inc.	6,116	6,303	2,999
Net Trading Income	703	762	-1,631
Operating Expense	9,752	11,533	6,274
Credit Commit. Impairment	18	226	860
Pro-tay Profit	6 834	13 013	1 315

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.53	1.56	1.53	Liquidity Coverage Ratio	124.62	135.12	129.36
ROAE	13.70	21.10	3.52	IFRS Tier 1 Leverage Ratio	4.68	5.68	4.33
Cost-to-Income	56.83	59.26	78.52	Gr. Imp. Loans/ Loans at Am. Cost	0.48	0.36	0.42
Core Tier 1 Ratio	13.67	16.73	12.24	Reserves/Loans at Amort. Cost	0.56	0.48	0.53

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Income generation
- Liquidity
- Geographical diversification (USA and Canada)

- Private household debt level in Canada
- Reduction of capital ratios through acquisition
- Competition in US banking business

^{*}Senior Unsecured/LT Bank Deposits



Bank of Montreal - Mortgage

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

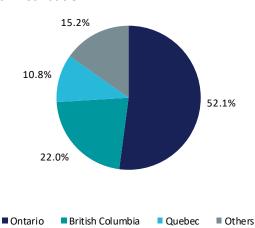
Cover Pool Data

Cover pool volume (EURm)	28,478	Rating (Moody's)	Aaa
Amount outstanding (EURm)	19,082	Rating (S&P)	-
-thereof ≥ EUR 500m	52.4%	Rating (Fitch)	AAA
Current OC (nominal)	49.2%	Rating (DBRS)	AAA
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Canada	Collateral score	5.0%
Main region	52% Ontario	RRL	-
Number of loans	132,040	JRL	-
Number of borrowers	135,577	Unused notches	-
Avg. exposure to borrowers (EUR)	210,051	AAA credit risk (%)	-
WAL (cover pool)	2.4y	PCU	6
WAL (covered bonds)	2.9y	Recovery uplift	2
Fixed interest (cover pool)	68.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	78.5%	LCR eligible	Yes
LTV (indexed)	49.3%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

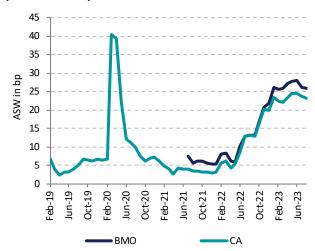
Borrower Types

100.0% ■ Residential ■Commercial ■ Multi-family

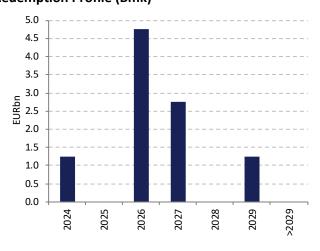
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bank of Nova Scotia

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank of Nova Scotia/The

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A2	Stable
S&P	A+	Stable

Homepage

www.scotiabank.com

The Bank of Nova Scotia (BNS; brand name: Scotiabank) is one of the six largest banks in Canada and is classified as a domestic systemically important bank (D-SIB). Its main shareholder of listed BNS is the Royal Bank of Canada with 9.0% (16. July 2023). It is the seventh largest institution in North America as measured by assets (February 2023). Its activities are the most geographically diversified in comparison with its Canadian peer group. Canada (62% of net income; FY 2022), the USA (8%) and the Pacific Alliance (Mexico, Peru, Chile and Colombia; 22%) form its six core markets. Reporting takes place in the following segments: Canadian Banking (44% of net income; FY 2022), International Banking (23%), Global Banking and Markets (18%) and Global Wealth Management (15%). Services offered to BNS's client base include retail and corporate banking, investment banking and capital market operations in addition to wealth management and private banking. A total of 63% of the loan portfolio (FY 2023) in Canada consists of private mortgage loans, followed by corporate loans at 16% and loans for automotive financing at 11%. Geographically, the private mortgage portfolio is focussed on the provinces Ontario (55.3%) and British Columbia (20%). In the business segment International Banking, a total of 28% of the loan portfolio is attributable to mortgages and 10% to private loans, with loans to business customers accounting for the lion's share (56%). A total of 31% of the wholesale funding consists of short-term financial instruments. Bail-inable notes and senior notes account for 23% and 13% of the funding mix respectively, while this figure stands at 16% for covered bonds. The financial year of BNS ends on 31 October.

Balance Sheet							
(EURm)	2021Y	2022Y	2023H1				
Net Loans to Customers	449,963	558,264	515,138				
Total Securities	267,979	331,419	304,000				
Total Deposits	542,238	656,993	616,019				
Tier 1 Common Capital	35,580	39,364	37,096				
Total Assets	826,440	1,000,709	917,518				
Total Risk-weighted Assets	290,237	342,945	301,383				

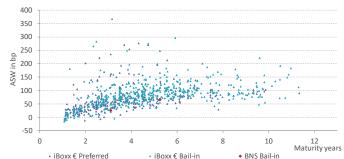
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	11,299	13,180	6,279
Net Fee & Commission Inc.	6,960	7,756	3,846
Net Trading Income	1,634	1,357	780
Operating Expense	11,002	12,372	6,253
Credit Commit. Impairment	1,205	999	934
Pre-tay Profit	8 545	9 409	3 837

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.55	1.50	1.39	Liquidity Coverage Ratio	124.39	118.90	131.20
ROAE	13.95	13.87	10.31	IFRS Tier 1 Leverage Ratio	4.53	4.19	4.25
Cost-to-Income	52.83	53.73	56.56	Gr. Imp. Loans/ Loans at Am. Cost	0.69	0.64	0.69
Core Tier 1 Ratio	12.26	11.48	12.31	Reserves/Loans at Amort. Cost	0.88	0.71	0.75

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position
- Diversified earnings profile
- Cost discipline

- Investments in emerging markets
- Dependency on wholesale funding
- Unsecured exposure (including consumer loans)



Bank of Nova Scotia - Mortgage

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

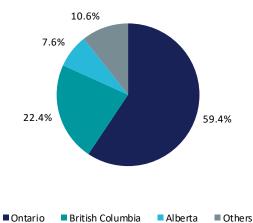
Cover pool volume (EURm)	55,183	Rating (Moody's)	Aaa
Amount outstanding (EURm)	37,616	Rating (S&P)	-
-thereof ≥ EUR 500m	42.4%	Rating (Fitch)	AAA
Current OC (nominal)	46.7%	Rating (DBRS)	AAA
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Canada	Collateral score	5.0%
Main region	59% Ontario	RRL	-
Number of loans	283,702	JRL	-
Number of borrowers	256,200	Unused notches	-
Avg. exposure to borrowers (EUR)	215,391	AAA credit risk (%)	-
WAL (cover pool)	2.4y	PCU	6
WAL (covered bonds)	3.5y	Recovery uplift	2
Fixed interest (cover pool)	64.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	72.0%	LCR eligible	Yes
LTV (indexed)	48.9%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

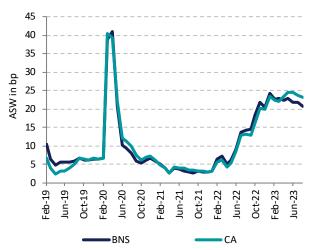


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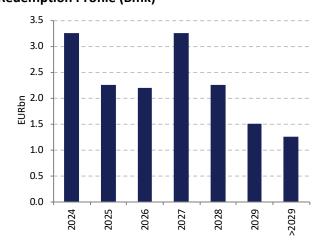
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Canadian Imperial Bank of Commerce

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Canadian Imperial Bank of Commerce

	Rating	Outlook
Fitch	AA-	Stable
Moody's*	Aa2	Stable
S&P	A+	Stable

Homepage

www.cibc.com

*Senior Unsecured/LT Bank Deposits

In terms of assets, the Canadian Imperial Bank of Commerce (CIBC) is the fifth-largest bank in Canada and has been assessed as a domestic systemically important bank (D-SIB) by the Office of the Superintendent of Financial Institutions (OSFI), which is the domestic financial regulatory authority. Approximately 50,000 employees serve around 13 million customers (data as at FY 2022). The bank's strategic focus is on Canada and the USA. The province of Ontario is of particular important to CIBC in terms of the loan portfolio (FY 2022: 53%). The bank reports across the following segments: Canadian Personal & Business Banking (36% of net income, FY 2022), Canadian Commercial Banking & Wealth Management (30%), U.S. Commercial Banking & Wealth Management (12%), Capital Markets (31%) and Corporate and Other (-9%). In March 2022, CIBC acquired the Canadian credit card portfolio of the company Costco. CIBC FirstCaribbean concluded the sale of its banking assets in Aruba in February 2022. Further sales of operations in St Vincent and St Kitts have received approval from the relevant supervisory authority. The loan portfolio of CIBC amounts to CAD 529bn and consists of private loans (62%) as well as corporate and public sector loans (38%). Mortgage loans account for 55% of the loan portfolio, while loans for commercial properties comprise 10%. A total of 26% of the funding of CIBC takes place through customer deposits, while 30% is covered by commercial and public sector deposits. Wholesale funding constitutes a 26% share, while 5% is attributable to securitisation and covered bonds. As part of its sustainability strategy, CIBC is pursuing the goal of mobilising CAD 300bn in sustainable financing by 2030. CIBC's financial year ends on 31 October.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	315,219	383,461	352,386
Total Securities	193,387	225,036	201,794
Total Deposits	419,142	500,606	455,107
Tier 1 Common Capital	23,542	27,442	25,508
Total Assets	584,292	699,758	624,890
Total Risk-weighted Assets	190,290	234,070	214,605

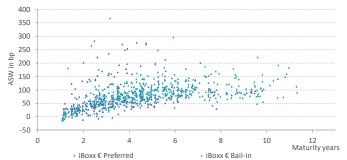
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	7,634	9,197	4,442
Net Fee & Commission Inc.	4,863	5,402	2,536
Net Trading Income	647	1,056	985
Operating Expense	7,677	9,240	5,283
Credit Commit. Impairment	105	769	509
Pre-tax Profit	5.544	5.801	2.289

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.59	1.58	1.50	Liquidity Coverage Ratio	126.73	129.06	123.91
ROAE	14.95	12.99	8.41	IFRS Tier 1 Leverage Ratio	4.23	4.19	4.29
Cost-to-Income	57.58	58.16	65.37	Gr. Imp. Loans/ Loans at Am. Cost	0.43	0.34	0.44
Core Tier 1 Ratio	12.37	11.72	11.89	Reserves/Loans at Amort. Cost	0.66	0.59	0.64

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in Canadian retail banking
- Income stability
- Asset quality

- Dependency on wholesale funding
- Rapid asset growth in the USA
- Private household debt level in Canada



Canadian Imperial Bank of Commerce – Mortgage Canada I+I



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

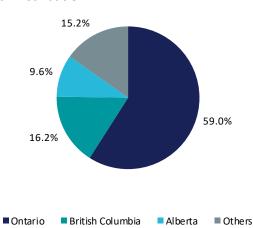
Cover Pool Data

Cover pool volume (EURm)	29,647	Rating (Moody's)	Aaa
Amount outstanding (EURm)	21,972	Rating (S&P)	-
-thereof ≥ EUR 500m	34.1%	Rating (Fitch)	AAA
Current OC (nominal)	34.9%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Canada	Collateral score	5.0%
Main region	59% Ontario	RRL	-
Number of loans	142,343	JRL	-
Number of borrowers	141,507	Unused notches	-
Avg. exposure to borrowers (EUR)	209,506	AAA credit risk (%)	-
WAL (cover pool)	2.2y	PCU	6
WAL (covered bonds)	3.0y	Recovery uplift	2
Fixed interest (cover pool)	74.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	68.0%	LCR eligible	Yes
LTV (indexed)	46.9%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

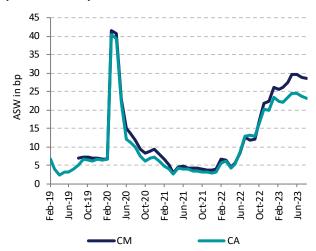
Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family

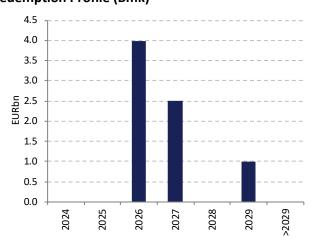
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Desjardins Group

Canada | *



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Federation des Caisses Desjardins du Quebec

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A1	Stable
S&P	A+	Stable

Homepage

www.desjardins.com

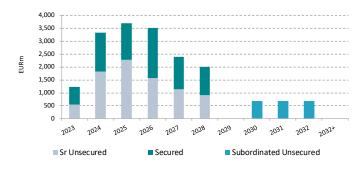
The Federation des Caisses Desjardins du Quebec (FCDQ; brand name: Desjardins) opened its first bank in 1900. Today, the Group consists of 213 cooperative banks and employs more than 58,000 staff (FY 2022). Measured in terms of assets, it is the largest cooperative banking group in North America and the sixth-largest bank in Canada. It serves around 7.5 million members and customers (Q4 2022). Within the Group structure, FCDQ operates as a central unit, assuming responsibility for management and control functions. The bank reports across three business segments (alongside the Other category), Personal and Business Services, Wealth Management and Life and Health Insurance and Property and Casualty Insurance. In Quebec, the Group has high market shares in various segments, including agricultural loans (42%, FY 2022), savings deposits (41%) and residential property mortgages (38%). At 64%, the majority of the loan portfolio is attributable to residential mortgages (FY 2022), followed by corporate and public sector loans (26%) as well as consumer loans and credit card receivables (10%). On 30 November 2022, the Desjardins Gruppe agreed upon the acquisition of the life insurance and mutual fund and investment business of the Guardian Capital Group Limited. A total of 80% of the funding consists of customer and corporate deposits, while wholesale funding accounts for 20%. Of this, 20% is comprised of covered bonds, with the largest share attributable to short-term liabilities (33%). As at the end of 2022, Desjardins had an outstanding ESG bond in the amount of CAD 500m for the funding of Positive Impact loans.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	160,166	172,612	171,694
Total Securities	77,089	74,696	68,898
Total Deposits	165,353	179,442	178,000
Tier 1 Common Capital	19,759	19,466	18,972
Total Assets	275,906	279,271	271,155
Total Risk-weighted Assets	93,467	96,314	95,394

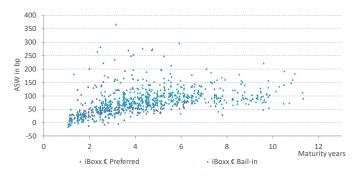
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	3,904	4,625	1,142
Net Fee & Commission Inc.	2,024	2,239	548
Net Trading Income	24	-	-49
Operating Expense	6,455	6,212	1,444
Credit Commit. Impairment	47	202	72
Pre-tax Profit	2.566	1.141	321

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	2.06	2.10	2.19	Liquidity Coverage Ratio	139.98	140.15	139.67
ROAE	8.19	2.87	3.22	IFRS Tier 1 Leverage Ratio	7.27	7.10	7.15
Cost-to-Income	71.19	82.22	78.59	Gr. Imp. Loans/ Loans at Am. Cost	0.47	0.48	0.50
Core Tier 1 Ratio	21.14	20.21	19.89	Reserves/Loans at Amort. Cost	0.42	0.41	0.41

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in the main market of Quebec
- Capitalisation
- Diversified income sources

- Regional concentration risks (Quebec)
- Level of debt among private Canadian households
- Cost structure



Desjardins - Mortgage

Canada 🛂

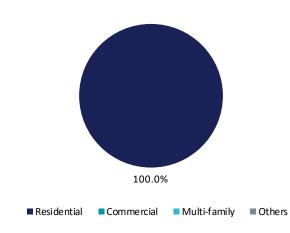


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

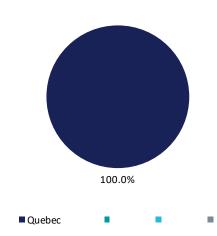
Cover Pool Data

Cover pool volume (EURm)	10,353	Rating (Moody's)	Aaa
Amount outstanding (EURm)	7,878	Rating (S&P)	-
-thereof ≥ EUR 500m	66.6%	Rating (Fitch)	AAA
Current OC (nominal)	31.4%	Rating (DBRS)	-
Committed OC	3.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Canada	Collateral score	5.0%
Main region	100% Quebec	RRL	-
Number of loans	75,351	JRL	-
Number of borrowers	69,128	Unused notches	-
Avg. exposure to borrowers (EUR)	149,770	AAA credit risk (%)	-
WAL (cover pool)	2.6y	PCU	6
WAL (covered bonds)	2.7y	Recovery uplift	2
Fixed interest (cover pool)	81.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	47.3%	LCR level (Bmk)	2A
LTV (unindexed)	60.2%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

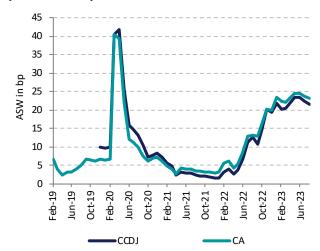
Borrower Types



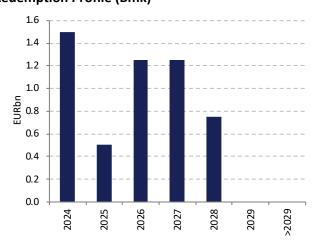
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Equitable Bank

Canada



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Equitable Bank

	Rating	Outlook
Fitch	BBB-	Stable
Moody's	-	-
S&P	-	-

Homepage

www.equitablebank.ca

Equitable Bank (EQB) was founded in 1970 and is headquartered in Toronto. According to its own information, it is the seventh largest bank in Canada (FY 2022; as measured by assets). EQB is a wholly owned subsidiary of EQB Inc. It has 1,685 employees, who serve more than 488,000 customers (31 December 2022). The institution does not have any physical branches, instead it acts purely as an online bank. EQB divides its business into the following segments: Personal Banking (FY 2022: 68.8% of the loan portfolio) and Commercial Banking (31.2%). In these segments, the bank focusses on the provision of property mortgages for single family households as well as on corporate mortgages, which are distributed via brokers and other partners. EQB has successfully established itself in the niche market of Alternative Single-Family Mortgages (ASFM) in Canada. Indeed, EQB has issued 60% of its outstanding loans in this segment (FY 2022). In February 2022, EQB announced the final agreement to acquire all shares in Concentra Bank. It estimated that the loan portfolio would increase by CAD 8.6bn (FY 2022) following the transaction and that the volume of deposits would see growth amounting to CAD 6.7bn. The acquisition was concluded on 01 November 2022. The lion's share of the funding mix consists of brokered/commercial deposits (FY 2022: 51%). Although wholesale funding currently only plays a subordinate role at 9%, EQB is anticipating an increase in line with the asset growth in this segment. Following its debut on the EUR subbenchmark segment in September 2021, the bank issued two further EUR-denominated covered bonds in 2022 and has a total volume of EUR 900m outstanding (as at FY 2022).

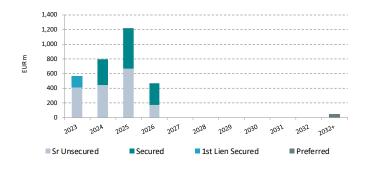
Balance Sneet	
(EURm)	:
Net Loans to Customers	:
Total Securities	

Q1
587
84
189
308
233
912
58 18 30 23

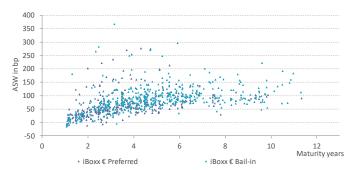
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	393	536	166
Net Fee & Commission Inc.	-	-	-
Net Trading Income	26	13	9
Operating Expense	176	275	87
Credit Commit. Impairment	-5	27	4
Pre-tax Profit	263	269	93

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.81	1.87	1.89	Liquidity Coverage Ratio	-	-	-
ROAE	16.24	12.66	15.47	IFRS Tier 1 Leverage Ratio	4.93	5.11	5.17
Cost-to-Income	40.47	48.13	47.25	Gr. Imp. Loans/ Loans at Am. Cost	0.28	0.30	0.34
Core Tier 1 Ratio	13.33	13.70	14.00	Reserves/Loans at Amort. Cost	0.15	0.21	0.22

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Earning power (online bank)

- Credit risk (Alternative Single-Family Mortgages)
- Funding structure



Equitable Bank - Mortgage

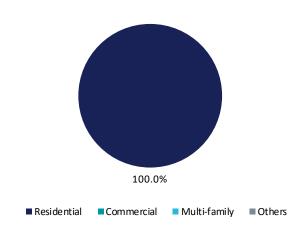
Canada 🙌

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

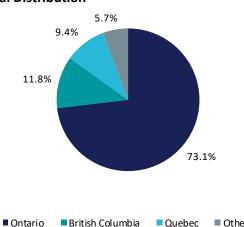
Cover Pool Data

Cover pool volume (EURm)	1,886	Rating (Moody's)	-
Amount outstanding (EURm)	1,177	Rating (S&P)	-
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	AA
Current OC (nominal)	60.3%	Rating (DBRS)	AA
Committed OC	10.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Canada	Collateral score	-
Main region	73% Ontario	RRL	-
Number of loans	5,700	JRL	-
Number of borrowers	5,700	Unused notches	-
Avg. exposure to borrowers (EUR)	330,917	AAA credit risk (%)	-
WAL (cover pool)	1.2y	PCU	6
WAL (covered bonds)	2.1y	Recovery uplift	2
Fixed interest (cover pool)	94.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	59.2%	LCR level (SBmk)	2A
LTV (unindexed)	66.8%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (SBmk)	SB

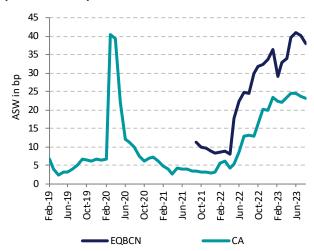
Borrower Types



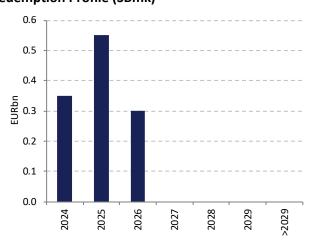
Regional Distribution



Spread Development



Redemption Profile (SBmk)





HSBC Bank Canada

Canada | *



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

HSBC Bank Canada

	Rating	Outlook
Fitch	Α	Watch Pos.
Moody's	A1	Watch Pos.
S&P	A+	Watch Pos.

Homepage

www.hsbc.ca

HSBC Bank Canada (HBC) was founded in 1981 and is headquartered in Vancouver. According to its own information, it is the largest internationally operating bank in Canada. It is a wholly owned subsidiary of HSBC Holding plc., making it part of the HSBC Group, which is active in 62 countries around the world. The customer focus of HBC is on Canadian corporations with their domestic and international business as well as on globally orientated retail customers. Geographically, HBC focuses on the regions British Columbia and Ontario and has approximately 130 branches and offices throughout the country (FY 2022). HBC reports across the following segments: Commercial Banking (CMB; FY 2022: 47.0% of operating income), Wealth and Personal Banking (39.6%), Global Banking (8.8%), Markets and Securities Services (4.1%) and Corporate Center (0.5%). In the highest-profit segment CMB, the bank supports businesses in the areas of payment transactions, financing, mergers and access to the financial market. The other business segments offer businesses, governments and institutions a wide range of financial services. These include global trade and receivables financing, tapping into investment opportunities, risk management as well as deposit and account services, among others. In September 2021, HBC placed its first covered bond in EUR benchmark format. HBC has issued three EUR covered bonds altogether with a total volume of EUR 2.75bn (as at April 2023). On 29 November 2022, the HSBC Group agreed upon the acquisition of HSBC Canada by the Royal Bank of Canada. The transaction is set to be concluded by the end of 2023.

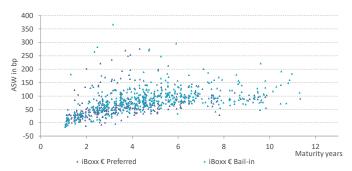
Balance Sheet				Income Statement
(EURm)	2021Y	2022Y	2023Q1	(EURm)
Net Loans to Customers	47,734	51,757	51,020	Net Interest Income
Total Securities	20,654	27,611	24,107	Net Fee & Commission Inc.
Total Deposits	51,158	56,866	55,040	Net Trading Income
Tier 1 Common Capital	3,884	3,594	3,719	Operating Expense
Total Assets	83,277	88,703	83,854	Credit Commit. Impairment
Total Risk-weighted Assets	27,679	30,873	29,990	Pre-tax Profit

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	827	1,194	311
Net Fee & Commission Inc.	536	569	130
Net Trading Income	108	72	20
Operating Expense	883	992	252
Credit Commit. Impairment	-22	78	1
Pre-tax Profit	642	789	213

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.15	1.43	1.59	Liquidity Coverage Ratio	146.73	164.17	171.84
ROAE	10.48	13.29	14.64	IFRS Tier 1 Leverage Ratio	4.79	4.28	4.63
Cost-to-Income	59.05	53.30	54.06	Gr. Imp. Loans/ Loans at Am. Cost	0.50	0.50	0.51
Core Tier 1 Ratio	14.03	11.64	12.40	Reserves/Loans at Amort. Cost	0.48	0.42	0.42

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Entity within the HSBC Group
- Franchise in West and Central Canada
- International customer competence

- Geographical concentration risks
- Commercial real estate lending exposure
- Profitability in comparison with peers



HSBC Bank Canada – Mortgage

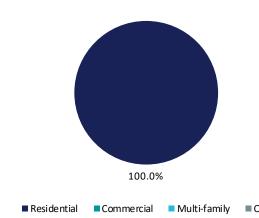
Canada 🙌

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

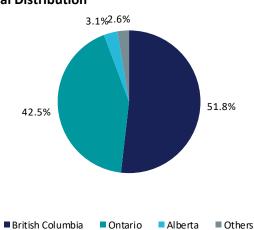
Cov	/er	Pool	Data

Cover pool volume (EURm)	5,020	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,718	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	84.7%	Rating (DBRS)	-
Committed OC	10.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Canada	Collateral score	5.0%
Main region	52% British Columbia	RRL	-
Number of loans	17,365	JRL	-
Number of borrowers	15,196	Unused notches	-
Avg. exposure to borrowers (EUR)	330,344	AAA credit risk (%)	-
WAL (cover pool)	2.2y	PCU	6
WAL (covered bonds)	4.2y	Recovery uplift	2
Fixed interest (cover pool)	52.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	36.7%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.2%	Maturity structure (Bmk)	SB

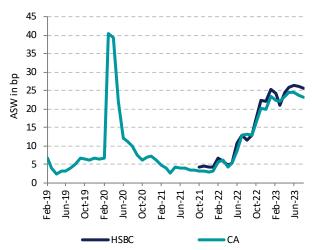
Borrower Types



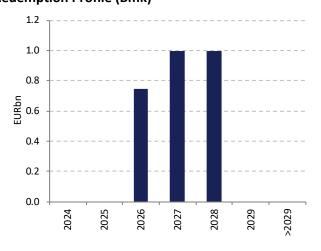
Regional Distribution



Spread Development



Redemption Profile (Bmk)





National Bank of Canada

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

National Bank of Canada

	Rating	Outlook
Fitch	A+	Stable
Moody's	А3	Stable
S&P	Α	Stable

Homepage

www.nbc.ca

The National Bank of Canada (NBC; brand name: National Bank) is headquartered in Montreal. It was formed following a number of mergers and ranks among the domestic systemically important banks (D-SIBs) in Canada. NBC employs more than 30,000 staff and serves around 2.7 million customers across 466 branches (of which 378 are located in Canada; data as at Q1 2023). The bank's geographic focus is on Canada, with the province of Quebec (53% of total income as at FY 2022) assuming a particularly prominent role for NBC. NBC reports across the following four segments: Personal & Commercial Banking (PCB), Wealth Management (WM), Financial Markets (FM) and US Specialty Finance & International (USSF&I). The breakdown of contribution to total income / annual net profit by segment is as follows: PCB; 41% / 34% respectively, WM; 23% / 20%, FM; 25% / 31%, USSF&I; 12% / 15% (as at Q1 2023). In the loan portfolio (gross loan volume CAD 211.4bn), the shares of loans to retail customers and non-retail customers are roughly equal at 55% and 45% respectively (Q1 2023). Quebec accounts for 53% of the loans' regional distribution, followed by Ontario at 27%. The National Bank has designated 95% of the loans in the retail portfolio (CAD 115.4bn) as secured. A total of 67% of Canadian property loans have a fixed interest rate. However, this is set to expire within the next twelve months for 11% of the loans. In Q1 2023, 54% of total deposits (CAD 85.1bn) were made by retail customers, while a share of 46.5% was attributable to corporate customer business. NBC had financed sustainable projects in the amount of CAD 3.2bn (12 2022) through the issuance of sustainable bonds. NBC's financial year ends on 31 October.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	127,427	153,318	144,165
Total Securities	90,888	114,762	98,759
Total Deposits	165,970	195,067	185,322
Tier 1 Common Capital	9,049	10,989	10,618
Total Assets	248,049	299,408	279,080
Total Risk-weighted Assets	72,791	86,647	79,585

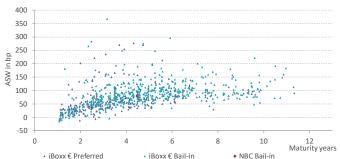
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	3,186	3,835	1,377
Net Fee & Commission Inc.	2,028	2,245	1,098
Net Trading Income	414	631	915
Operating Expense	3,260	3,805	1,930
Credit Commit. Impairment	1	102	117
Pre-tax Profit	2,679	3,112	1,468

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.46	1.51	1.04	Liquidity Coverage Ratio	150.83	138.92	153.53
ROAE	17.78	16.74	15.64	IFRS Tier 1 Leverage Ratio	3.89	3.89	3.99
Cost-to-Income	54.82	54.19	54.87	Gr. Imp. Loans/ Loans at Am. Cost	0.38	0.41	0.40
Core Tier 1 Ratio	12.43	12.68	13.34	Reserves/Loans at Amort. Cost	0.57	0.48	0.52

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Regional market positioning (Quebec)
- **Profitability**
- Capitalisation

- Geographical concentration risks
- Private household debt level in Canada
- Volatility of capital market-based income sources



National Bank of Canada – Mortgage

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

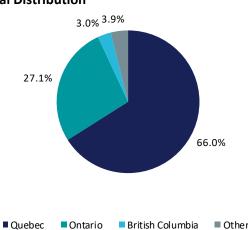
Cover Pool Data

Cover pool volume (EURm)	15,517	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,135	Rating (S&P)	-
-thereof ≥ EUR 500m	54.7%	Rating (Fitch)	AAA
Current OC (nominal)	69.9%	Rating (DBRS)	AAA
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% Canada	Collateral score	5.0%
Main region	66% Quebec	RRL	-
Number of loans	150,513	JRL	-
Number of borrowers	115,202	Unused notches	-
Avg. exposure to borrowers (EUR)	134,695	AAA credit risk (%)	-
WAL (cover pool)	2.37	PCU	6
WAL (covered bonds)	2.69	Recovery uplift	2
Fixed interest (cover pool)	88.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	72.32%	LCR eligible	Yes
LTV (indexed)	48.9%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.01%	Maturity structure (Bmk)	SB

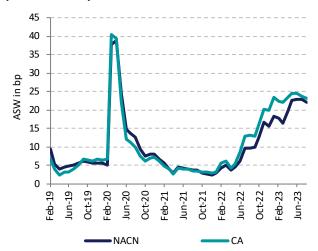
Borrower Types

100.0% ■ Residential ■Commercial ■ Multi-family

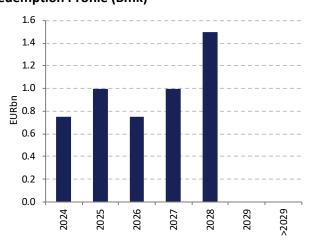
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Royal Bank of Canada

Canada | +



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Royal Bank of Canada

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.rbcroyalbank.com

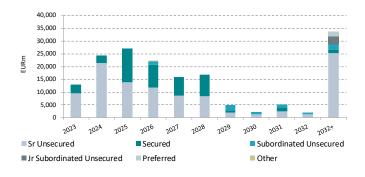
Headquartered in Toronto, Royal Bank of Canada (RBC) is the largest Canadian bank by assets. It has been declared a global systemically important bank (G-SIB) by the Financial Stability Board. RBC is therefore subject to the more stringent capital requirements of the lowest G-SIB category (additional capital buffer: 1%). As a universal bank, RBC with approximately 97,000 employees, offers over 17 million customers a broad spectrum of financial products and services. RBC is active in 29 countries. As at Q1 2023, 60% of income from the previous twelve months was generated in Canada, while the USA accounted for 24%. Moreover, according to its own information, RBC ranks among the top ten largest banks in the world (as measured by market capitalisation; Q1 2023). RBC reports across four main segments: Personal & Commercial Banking (PCB; 53% of income in the period Q1 2022 to Q1 2023), Capital Markets (21%), Wealth Management (21%) and Insurance (5%). RBC is among the market leaders in all core areas of Canadian business. The domestic market also plays a huge role in the lending business with a share of 74% in the loan portfolio (Q1 2023), while the USA and remaining countries account for a share of 19% and 7% respectively. The loan portfolio is divided into five segments: property financing (50%; Q1 2023), wholesale (35%), retail loans (11%), credit cards (2%) and small businesses (2%). On 29 November 2022, the HSBC Group approved the sale of the subsidiary HSBC Canada to RBC (value: CAD 13.5bn). The financial year of RBC ends on 31 October.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	500,515	608,074	555,367
Total Securities	480,004	586,228	520,642
Total Deposits	738,552	863,800	776,632
Tier 1 Common Capital	52,720	57,061	54,190
Total Assets	1,190,176	1,421,782	1,296,434
Total Risk-weighted Assets	385,403	452,277	396,576

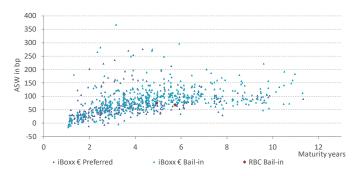
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	13,325	16,528	8,548
Net Fee & Commission Inc.	13,377	14,645	7,105
Net Trading Income	1,595	1,460	1,680
Operating Expense	17,249	19,345	10,525
Credit Commit. Impairment	-448	362	795
Pre-tax Profit	13,744	14,630	6,784

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.26	1.27	1.36	Liquidity Coverage Ratio	123.31	124.98	135.40
ROAE	17.25	15.28	12.62	IFRS Tier 1 Leverage Ratio	4.73	4.41	4.51
Cost-to-Income	56.53	56.33	58.11	Gr. Imp. Loans/ Loans at Am. Cost	0.33	0.27	0.35
Core Tier 1 Ratio	13.68	12.62	13.66	Reserves/Loans at Amort. Cost	0.58	0.46	0.52

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Market position in Canada
- Risk management culture

- Private household debt level
- Dependency on wholesale funding
- Volatility in the capital markets segment



Royal Bank of Canada - Mortgage

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

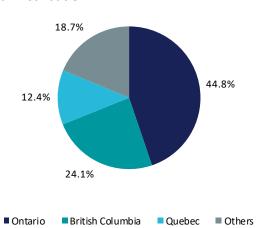
Cover Pool Data

Cover pool volume (EURm)	76,458	Rating (Moody's)	Aaa
Amount outstanding (EURm)	47,959	Rating (S&P)	-
-thereof ≥ EUR 500m	36.5%	Rating (Fitch)	AAA
Current OC (nominal)	59.4%	Rating (DBRS)	AAA
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	5
Main country	100% Canada	Collateral score	5.7%
Main region	45% Ontario	RRL	-
Number of loans	447,170.0	JRL	-
Number of borrowers	388,859	Unused notches	-
Avg. exposure to borrowers (EUR)	196,622	AAA credit risk (%)	-
WAL (cover pool)	2.1	PCU	6
WAL (covered bonds)	3.7	Recovery uplift	2
Fixed interest (cover pool)	68.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	59.4%	LCR eligible	Yes
LTV (indexed)	50.1%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

Borrower Types

100.0% ■ Residential Multi-family Commercial

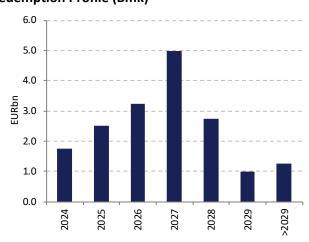
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Toronto-Dominion Bank

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Toronto-Dominion Bank/The

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.td.com

Toronto-Dominion Bank (TD) and its subsidiaries together form the TD Bank Group, headquartered in Toronto. It is the largest banking group in Canada as measured by deposits. TD is also classified as a global systemically important bank (G-SIB; additional capital buffer: 1%). As measured by assets, TD is the sixth largest banking group in North America (Q1 2023). With more than 95,000 employees, TD serves in excess of 27 million customers worldwide. The North American focus of the banking group is also reflected in its reporting, with the bank focussing on the following four segments: Canadian Personal and Commercial Banking (FY 2022: around 38% of net income), U.S. Retail (32%; incl. business banking and wealth management in the USA as well as its stake in Schwab), Wealth Management and Insurance (14%) and Wholesale Banking (8%). The bank's other activities are grouped in the segment Corporate (9%). With the retail segments jointly contributing around 84% of net income as at FY 2022, it is clear that TD's main focus is fixed on this area. The bank's strategy is centred on further strengthening its retail focus and concentrating on the North American market. TD has pursued its growth strategy with the acquisition of Cowen Inc. (value: USD 1.3bn) and First Horizon Corp. (value: USD 13.4bn). The purchase of Cowen Inc. was concluded in 31 March 2023. TD is pursuing the long-term goal of making its portfolio carbon neutral by 2050. To this end, TD has set a Finance Target of CAD 500bn by 2030 (as at FY 2022: CAD 107bn). The financial year of TD ends on 31 October.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	515,436	629,168	581,564
Total Securities	498,661	607,235	553,727
Total Deposits	865,612	1,022,021	912,756
Tier 1 Common Capital	48,782	62,049	56,345
Total Assets	1,205,765	1,422,011	1,287,180
Total Rick-weighted Assets	321 0//3	383 //35	367 086

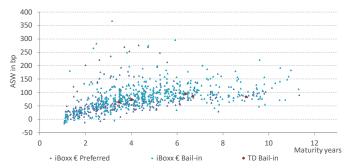
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	16,076	19,901	10,536
Net Fee & Commission Inc.	8,475	9,636	4,662
Net Trading Income	423	37	719
Operating Expense	15,376	17,845	10,389
Credit Commit. Impairment	-149	776	896
Pre-tax Profit	11,415	14,859	4,322

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.56	1.69	1.76	Liquidity Coverage Ratio	125.72	128.09	143.60
ROAE	14.76	17.02	8.75	IFRS Tier 1 Leverage Ratio	4.23	4.63	4.58
Cost-to-Income	57.72	56.48	58.13	Gr. Imp. Loans/ Loans at Am. Cost	0.33	0.30	0.31
Core Tier 1 Ratio	15.19	16.18	15.35	Reserves/Loans at Amort. Cost	0.88	0.77	0.78

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in Canada and the USA
- Asset quality
- Liquidity

- Competitive pressure in the USA
- Private household debt level in Canada
- Concentration risks in retail banking



Toronto-Dominion Bank - Mortgage

Canada 🙌



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

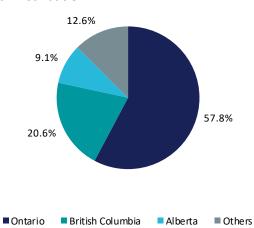
Cover Pool Data

Cover pool volume (EURm)	55,883	Rating (Moody's)	Aaa
Amount outstanding (EURm)	25,663	Rating (S&P)	-
-thereof ≥ EUR 500m	68.2%	Rating (Fitch)	AAA
Current OC (nominal)	117.8%	Rating (DBRS)	AAA
Committed OC	3.1%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% Canada	Collateral score	5.0%
Main region	58% Ontario	RRL	-
Number of loans	259,169	JRL	-
Number of borrowers	192,573	Unused notches	-
Avg. exposure to borrowers (EUR)	290,189	AAA credit risk (%)	-
WAL (cover pool)	2.4y	PCU	6
WAL (covered bonds)	2.6y	Recovery uplift	2
Fixed interest (cover pool)	70.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	86.0%	LCR eligible	Yes
LTV (indexed)	50.7%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

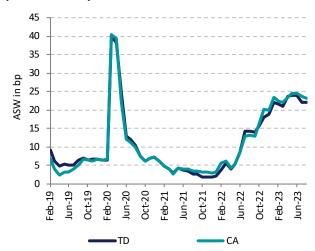
Borrower Types

100.0% ■ Residential ■Commercial ■ Multi-family

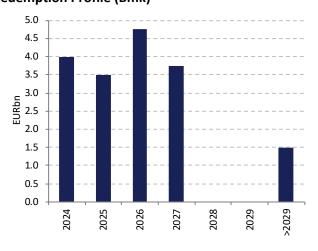
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

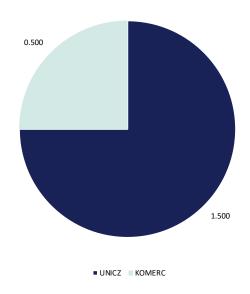
Czechia 🛌



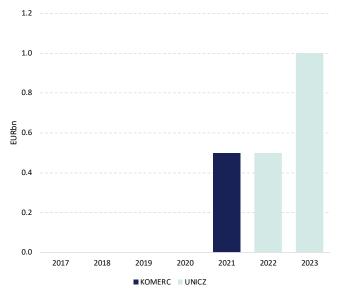
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 7.16bn	Outstanding volume (Bmk)	EUR 2.00bn
Amount outstanding	EUR 5.01bn	Number of benchmarks	4
Number of issuer	2	Outstanding ESG volume (Bmk)	EUR 0.50bn
No of cover pools	2	Number of ESG benchmarks	1
there of M / PS / others	2/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	SB

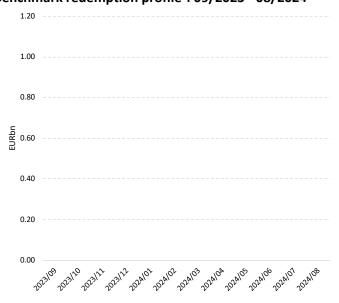
Outstanding benchmark volume¹ (EURbn)



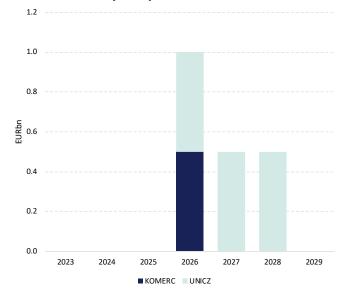
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile¹²





Komercni Banka

Czechia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Komercni Banka AS

	Rating	Outlook
Fitch	Α	Stable
Moody's*	A1	Stable
S&P	Α	Stable

Homepage

www.kb.cz

*LT Bank Deposit

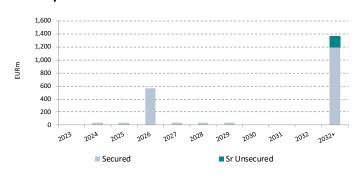
Komercni Banka, a.s. (KB) was established in 1990 and has been operating as a joint-stock company since 1992. It is the parent company of the KB Group and part of the Societe Generale Group, which, as a strategic investor, holds 60.4% of shares in the institute (31 March 2023). The remaining shares are held in free float. According to information from KB itself, it boasts a leading position in the Czech Republic as well as Central and Eastern Europe. KB serves approximately 1.7 million customers across a total of 217 branches (Q1 2023). KB is classified as a domestic systemically important bank (D-SIB; additional capital buffer: 2%) by the Czech central bank. In addition to the traditional banking business, the bank also offers its customers products and services in the areas of pensions and building society savings contracts, leasing, factoring, consumer loans and insurance via the members of the KB Group. The Group reports across the segments Retail Banking (FY 2022: 56.6% of operating income), Corporate Banking (37.0%), Investment Banking (3.2%) and Other (3.2%). The loan portfolio of the KB Group mostly consists of corporate and other loans (Q1 2023: 50.3%) as well as mortgage loans to private persons (34.2%). Customer deposits constitute the largest share of the funding mix at 70% (as measured by liabilities). In January 2021, the bank placed its inaugural EUR denominated covered bond (volume: EUR 500m), expanding its refinancing sources in the process. Since 2019, KB has been measuring its own carbon footprint. By 2021, the bank had managed to achieve an emissions reduction of 32.5% versus 2019: a key milestone on its journey towards achieving net zero emissions by 2026.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	29,120	32,349	33,596
Total Securities	8,223	10,178	10,904
Total Deposits	38,458	39,354	46,023
Tier 1 Common Capital	4,062	4,082	4,300
Total Assets	50,041	54,033	60,994
Total Risk-weighted Assets	19,466	21,649	22,376

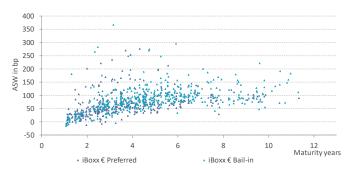
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	850	1,166	267
Net Fee & Commission Inc.	223	249	64
Net Trading Income	142	149	42
Operating Expense	590	652	211
Credit Commit. Impairment	29	48	-18
Pre-tax Profit	625	889	187

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.72	2.07	1.90	Liquidity Coverage Ratio	148.00	160.00	162.00
ROAE	10.57	14.00	11.42	IFRS Tier 1 Leverage Ratio	8.45	8.00	-
Cost-to-Income	47.91	41.11	55.52	NPL/Loans at Amortised Cost	2.52	2.35	2.25
Core Tier 1 Ratio	20.87	18.86	19.22	Reserves/Loans at Amort. Cost	1.80	1.75	1.69

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Domestic market position
- Capitalisation

- Credit concentration
- Competition in retail and SME segment



Komercni Banka – Mortgage

Czechia

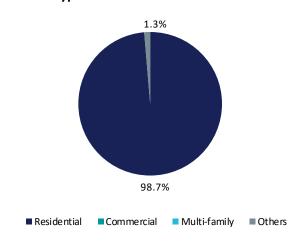


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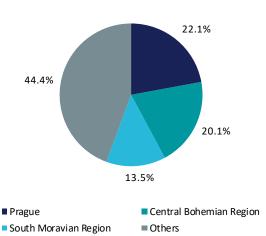
Cover Pool Data

Cover pool volume (EURm)	628	Rating (Moody's)	-
Amount outstanding (EURm)	500	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	27.0%	Rating (DBRS)	-
Committed OC	5.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Czechia	Collateral score	-
Main region	22% Prague	RRL	-
Number of loans	9,339	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	11.6y	PCU	5
WAL (covered bonds)	2.8y	Recovery uplift	1
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	61.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

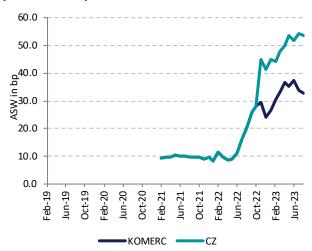
Borrower Types



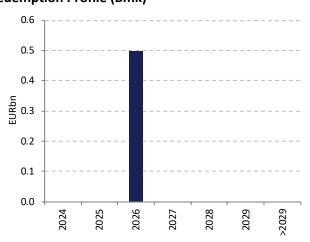
Regional Distribution



Spread Development



Redemption Profile (Bmk)





UniCredit Bank Czech Republic and Slovakia

Czechia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

UniCredit Bank Czech Republic & Slovakia AS

	Rating	Outlook
Fitch	-	-
Moody's*	А3	Negative
S&P	-	-

Homepage

www.unicreditbank.cz

*LT Bank Deposit

UniCredit Bank Czech Republic and Slovakia (UniCredit CZ) is headquartered in Prague. It is the fourth-largest bank in the Czech Republic as measured by total assets. As a wholly owned subsidiary of the UniCredit Group, a global systemically important bank (G-SIB; 1% additional capital buffer), the bank operates with a particular focus on Eastern European countries. In geographical terms, more than two thirds (FY 2022: 82%) of total assets are attributable to the bank's business in the Czech Republic, while Slovakia accounts for a lower share of 18%. UniCredit CZ has approximately 3,200 staff (FY 2022), who serve its customers across 104 branches, offering services in the areas of retail, commercial and investment banking. In addition to the original banking business, UniCredit CZ also provides its customers with services via its subsidiaries in the areas of leasing, factoring and real estate. The Group reports across the segments of Retail and Private Banking (FY 2022: 27% of the pre-tax profit), Corporate and Investment Banking, Leases (97%) and the business segment Other (-23%). In 2022, a total of CZK 11bn was issued in ESG corporate loans. This volume amounts to just under 20% of the long-term loans of UniCredit CZ. Moreover, the share of corporate loans in the loan portfolio amounts to 67.7% (FY 2022), while loans to retail customers account for 32.3%. Direct funding (customer deposits + bonds) makes up 77% of the total assets. ESG bonds also play a part in the refinancing activities of the bank. For example, a green covered bond in the amount of EUR 500m was successfully placed on the market for the first time in June 2023.

Balance Sheet						
(EURm)	2020Y	2021Y	2022Y			
Net Loans to Customers	17,573	19,425	22,233			
Total Securities	1,827	2,772	4,132			
Total Deposits	16,190	18,895	20,837			
Tier 1 Common Capital	3,079	3,157	3,285			
Total Assets	25,299	27,870	31,726			
Total Risk-weighted Assets	13,177	14,548	14,248			

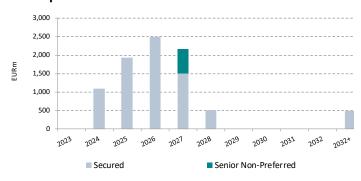
Income Statement (EURm) 2020Y 2021Y 2022Y 457 506 594 Net Interest Income Net Fee & Commission Inc. 134 140 155 99 96 **Net Trading Income** 92 **Operating Expense** 331 351 375 79 Credit Commit. Impairment 127 59

254

345

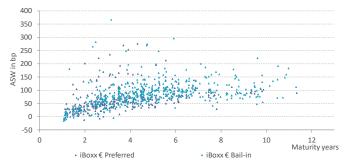
454

Redemption Profile



Senior Unsecured Bonds

Pre-tax Profit



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.83	1.95	2.04	Liquidity Coverage Ratio	-	-	-
ROAE	6.48	8.34	11.18	IFRS Tier 1 Leverage Ratio	12.67	12.27	11.61
Cost-to-Income	46.32	45.32	42.07	NPL/Loans at Amortised Cost	3.37	2.55	1.91
Core Tier 1 Ratio	23.37	21.70	23.06	Reserves/Loans at Amort. Cost	2.33	2.24	2.06

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Profitability
- Franchise (corporate banking)

- Risks in the property and construction sector
- Dependency on corporate deposits
- Fragile economic environment in CEE



UniCredit Bank CZ and SK - Mortgage

Czechia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	6,534	Rating (Moody's)	Aa2
Amount outstanding (EURm)	4,520	Rating (S&P)	-
-thereof ≥ EUR 500m	33.1%	Rating (Fitch)	-
Current OC (nominal)	44.6%	Rating (DBRS)	-
Committed OC	10.0%	TPI	Improbable
Cover type	Mortgage	TPI leeway	2
Main country	72% Czechia	Collateral score	15.5%
Main region	30% Prague	RRL	-
Number of loans	79,871	JRL	-
Number of borrowers	73,140	Unused notches	-
Avg. exposure to borrowers (EUR)	89,331	AAA credit risk (%)	-
WAL (cover pool)	17.5y	PCU	-
WAL (covered bonds)	2.9y	Recovery uplift	-
Fixed interest (cover pool)	81.7%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	35.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	58.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

76.1%

■Commercial ■ Multi-family

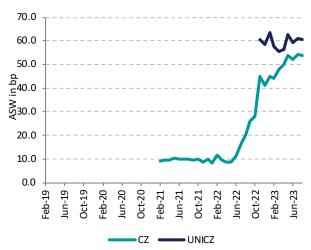
■ Others



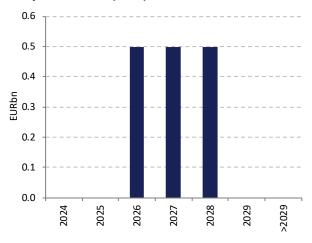


Spread Development

■ Residential



Redemption Profile (Bmk)





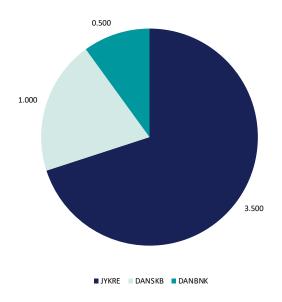
Market Overview Covered Bonds

Denmark ==

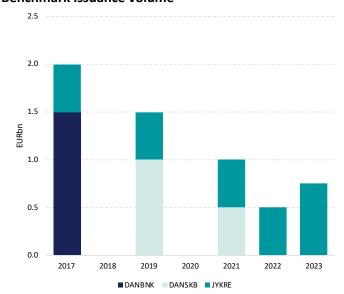
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 51.64bn	Outstanding volume (Bmk)	EUR 5.00bn
Amount outstanding	EUR 47.80bn	Number of benchmarks	9
Number of issuer	3	Outstanding ESG volume (Bmk)	-
No of cover pools	3	Number of ESG benchmarks	-
there of M / PS / others	2/0/1	Outstanding volume (SBmk)	-
Ratings (low / high)	A / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	HB, SB

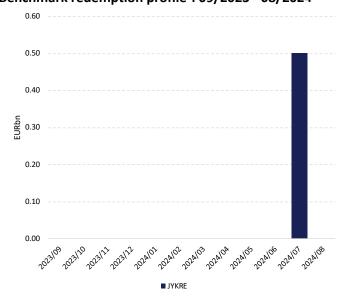
Outstanding benchmark volume¹ (EURbn)



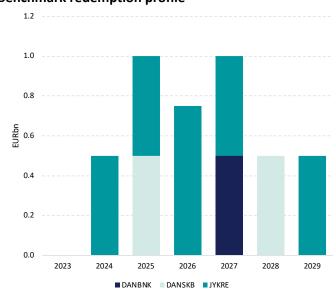
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





Danish Ship Finance

Denmark



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Danish Ship Finance A/S

Rating	Outlook
-	-
BBB+	Stable
	-

Homepage

www.shipfinance.dk

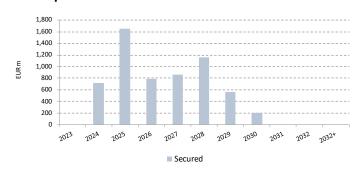
Danish Ship Finance A/S (DSF, Danmarks Skibskredit) is a special financier for the maritime industry, with a focus on both the Danish and international markets. At 86.6% (FY 2022), Danish Ship Finance Holding A/S, in which two pension funds and an equity fund each maintain a stake of just under 33% each, with employees holding a stake of 2.3%, is the majority shareholder of DSF. The business model of DSF is based on the following three pillars: lending (financing provided to shipowners), investments (investments in highly liquid assets) and funding (refinancing for the lending business, mainly via covered bonds and macro-hedging). DSF is pursuing a strategic target of supporting the sustainable transformation of the shipping sector into a carbon-neutral industry. Therefore, more than 50% of newly issued loans are set to be linked to sustainability concepts in 2023, with the aim of increasing this to 100% by 2025. DSF is targeting a carbon-neutral loan portfolio by 2050. The credit risk (FY 2022) is diversified via ship types, customers and countries. The most financed ship types as measured by loan portfolio include product tankers (20.5%), bulk cargo carriers (20%), crude oil tankers (12.1%) and container ships (10.1%). The bank's five biggest credit commitments (26% of the loan portfolio) are secured by mortgages on 58 ships, split across nine ship categories. In geographical terms, 25% of the funding is attributable to Denmark, 18% to Greece, 14% to the UK and 10% to Germany. The global market share in ship financing stands at around 1%. Most covered bonds are issued in DKK and EUR, while loans are mainly denominated in USD.

Balance Sheet							
(EURm)	2020Y	2021Y	2022Y				
Net Loans to Customers	4,292	4,881	4,575				
Total Securities	3,492	2,308	2,832				
Total Deposits	-	-	-				
Tier 1 Common Capital	1,230	1,228	1,245				
Total Assets	8,035	7,324	7,525				
Total Risk-weighted Assets	5,514	6,116	5,699				

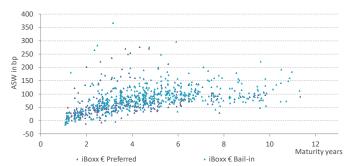
Income Statement

(EURm)	2020Y	2021Y	2022Y			
Net Interest Income	73	68	84			
Net Fee & Commission Inc.	3	4	2			
Net Trading Income	-20	-11	-28			
Operating Expense	21	23	25			
Credit Commit, Impairment	13	-5	-78			
Pre-tax Profit	21	44	112			

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	-	-	-	Liquidity Coverage Ratio	571.82	449.13	560.00
ROAE	1.26	2.73	6.95	IFRS Tier 1 Leverage Ratio	15.59	17.01	16.97
Cost-to-Income	37.53	37.14	43.45	Gr. Imp. Loans/Loans at Am. Costs	7.53	0.41	3.66
Core Tier 1 Ratio	22.31	20.08	21.85	Reserves/Loans at Amort. Cost	3.95	2.66	2.09

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Liquidity buffer
- Risk management

- Cyclical risks on the ship financing market
- No recourse to central bank funding
- Concentrated business model



Danish Ship Finance – Ship

Denmark ==



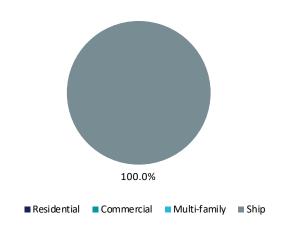
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

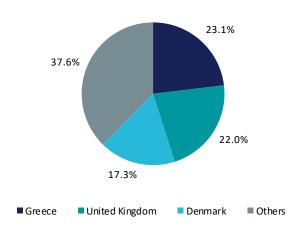
Cover Pool Data

Cover pool volume (EURm)	1,150	Rating (Moody's)	-
Amount outstanding (EURm)	928	Rating (S&P)	Α
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	24.0%	Rating (DBRS)	-
Committed OC	13.2%	TPI	-
Cover type	Ship	TPI leeway	-
Main country	23% Greece	Collateral score	-
Main region	n/a	RRL	a-
Number of loans	50	JRL	a
Number of borrowers	n/a	Unused notches	N/A
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	2.7y	PCU	-
WAL (covered bonds)	4.0y	Recovery uplift	-
Fixed interest (cover pool)	0.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	42.6%	LCR level (Bmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

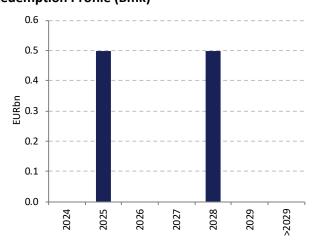




Spread Development

60 50 ASW in bp 30 20 10 0 Feb-21

Redemption Profile (Bmk)





Danske Bank

Denmark



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Danske Bank A/S

	Rating	Outlook
Fitch	Α	Stable
Moody's	A3	Positive
S&P	A+	Stable

Homepage

www.danskebank.com

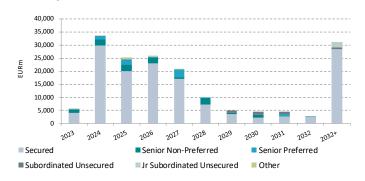
Danske Bank A/S (Danske) is a Danish universal bank headquartered in Copenhagen. It is the largest institute in the country as measured by assets. The largest shareholder of the Group, which is listed on the Nasdaq Copenhagen, is the A.P. Moller Holding (Maersk Group) with a stake of 21.0% (18 July 2023). In addition to more than 3.3 million retail customers as well as small and medium-sized enterprises, Danske also serves over 2,000 wholesale and institutional customers in 153 branches across the loans, insurance, pensions and asset management segments, among others. The bank reports in the main business segments Personal Customers (32.5% of operating income; FY 2022), Business Customers (26.9%), Large Corporates & Institutions (28.0%), Danica Pension (0.1%), Northern Ireland (4.2%) and Group Functions (3.9%). The Non Core segment is responsible for the administration and sale of wind-down portfolios. In Denmark, Danske has a market share of 28.4% for deposits (FY 2022), while it holds smaller shares in the other Nordic countries (Finland: 9.7%; Norway: 7.3%; Sweden: 4.6%; data as at Nov. 2022 in each case). The loan portfolio is focused on Denmark (45%), Sweden (12%), Norway (11%) and Finland (8%). A total of 62% of the funding (FY 2022) is attributable to deposits from retail and corporate customers, while 13% consists of deposits from banks. In total, 8% is attributable to covered bonds (45% in SEK, 29% in EUR and 26% in NOK). The sustainable financing business is set to grow to a volume of DKK 300bn by the end of 2023 (FY 2022: DKK 273bn). Investments in sustainably orientated funds amounted to DKK 52.1bn (FY 2022; target for 2023: DKK 150bn).

Balance Sheet							
(EURm)	2021Y	2022Y	2023Q1				
Net Loans to Customers	275,970	270,963	266,268				
Total Securities	109,393	124,521	115,639				
Total Deposits	173,771	169,702	170,841				
Tier 1 Common Capital	20,434	20,058	19,831				
Total Assets	529,348	509,602	508,911				
Total Risk-weighted Assets	115,689	112,687	110,339				

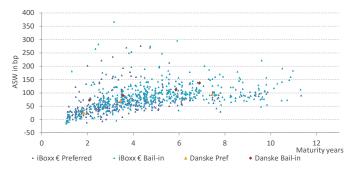
Income Statement

meome statement						
(EURm)	2021Y	2022Y	2023Q1			
Net Interest Income	3,600	3,408	1,039			
Net Fee & Commission Inc.	1,629	1,678	398			
Net Trading Income	4,419	213	257			
Operating Expense	4,140	4,058	965			
Credit Commit, Impairment	19	202	20			
Pre-tax Profit	2 228	-228	934			

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.81	0.76	0.97	Liquidity Coverage Ratio	163.68	151.04	169.35
ROAE	7.46	-2.72	12.72	IFRS Tier 1 Leverage Ratio	4.12	4.45	4.32
Cost-to-Income	65.33	68.51	50.28	Gr. Imp. Loans/Loans at Am. Costs	4.56	2.98	2.97
Core Tier 1 Ratio	17.66	17.80	17.97	Reserves/Loans at Amort. Cost	2.16	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Asset quality
- Diversified income
- Capitalisation

- Dependency on wholesale funding
- Reputational damage/costs arising from money laundering scandal
- Risks from interest rate hikes and inflation



Danske Bank - Mortgage (Pool C)

Denmark ==

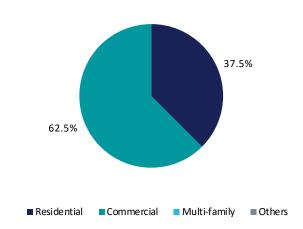
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

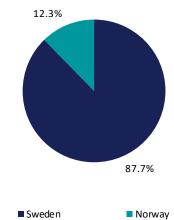
Cover Pool Data

Cover pool volume (EURm)	5,692	Rating (Moody's)	-
Amount outstanding (EURm)	4,806	Rating (S&P)	AAA
-thereof ≥ EUR 500m	10.4%	Rating (Fitch)	AAA
Current OC (nominal)	18.4%	Rating (DBRS)	-
Committed OC	2.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	88% Sweden	Collateral score	-
Main region	21% East Sweden	RRL	aa
Number of loans	4,407	JRL	aaa
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	12.7%
WAL (cover pool)	1.9y	PCU	6
WAL (covered bonds)	2.2y	Recovery uplift	2
Fixed interest (cover pool)	35.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	46.5%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

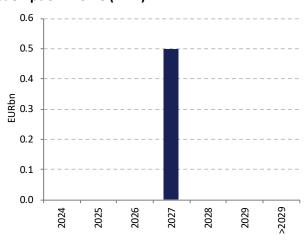




Spread Development

ASW in bp Teb-19 Oct-19 Oct-19 Lun-21 Lun-22 Doct-22 Lun-23 Lun-23 Lun-23 Lun-23 Lun-23 Lun-23 Lun-23 Lun-23 Lun-23

Redemption Profile (Bmk)





Jyske Bank

Denmark



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Jyske Bank A/S

Rating	Outlook
-	-
A2	Stable
A+	Stable
	- A2

Homepage

www.jyskebank.com

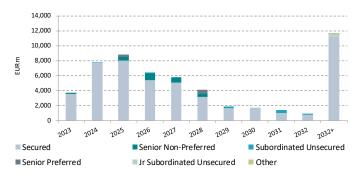
*Senior Unsecured/LT Bank Deposits Jyske Bank A/S (Jyske) is the third-largest bank in Denmark as measured by total assets (FY 2022). The largest shareholder of Jyske, which is listed on the Nasdaq Copenhagen, is BRFholding A/S (26 April 2023: 28%), a subsidiary of BRFfonden. The mortgage business of the bank is operated by Jyske Realkredit, while Jyske Finans is responsible for leasing and Jyske Bank covers the banking business. The Jyske Group reports across three segments: Banking (49% of pre-tax profit: FY 2022), Mortgage (38%) and Leasing (13%). The loan portfolio (FY 2022) mainly consists of mortgage loans (73%; of which approximately 62% is attributable to residential mortgage loans) and corporate loans (20%). In geographical terms, 87% of the portfolio is attributable to Denmark, while 8% is allocated to borrowers from the EU. The market shares for mortgage loans and the deposit business each stand at around 12%. In December 2022, the transaction to acquire the Danish business activities of Svenska Handelsbanken was concluded, with Jyske strengthening its own market position by around one fifth. Jyske acquired the Handelsbanken loan portfolio worth DKK 65.2bn including deposits worth DKK 35.4bn for a price of DKK 3.0bn. Full integration is set to take place by Q4 2023. The majority of the funding mix consists of covered bonds (43% of the balance sheet total; FY 2022) as well as deposits from retail and corporate customers (SMEs, 25%). The carbon footprint of capital investments is set to be reduced by 75% by 2030 (a reduction of 46% has already been achieved by FY 2022). The funding volume of low-energy commercial property is set to increase to DKK 50bn by 2025 (FY 2022: DKK 47.3bn).

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	65,259	72,824	72,756
Total Securities	14,890	16,570	16,275
Total Deposits	17,467	27,053	29,666
Tier 1 Common Capital	4,607	4,511	4,662
Total Assets	87,034	100,829	105,498
Total Risk-weighted Assets	25,309	29,701	30,212

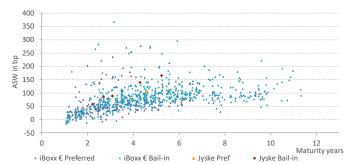
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	678	793	294
Net Fee & Commission Inc.	310	340	88
Net Trading Income	129	-1	43
Operating Expense	707	725	217
Credit Commit, Impairment	-29	-81	13
Pre-tay Profit	541	613	232

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.77	0.89	1.17	Liquidity Coverage Ratio	239.27	220.85	218.34
ROAE	8.35	9.66	12.50	IFRS Tier 1 Leverage Ratio	5.51	4.67	4.57
Cost-to-Income	56.87	57.02	46.49	Gr. Imp. Loans/Loans at Am. Costs	6.10	5.07	4.67
Core Tier 1 Ratio	18.20	15.19	15.43	Reserves/Loans at Amort. Cost	3.26	2.09	2.19

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 28.07.2023

Strengths / Opportunities

- Group franchise in Denmark
- Capitalisation
- Asset quality

- Dependency on wholesale funding
- Geographical diversity
- Profitability



Jyske Realkredit – Mortgage (Pool E)

Denmark ==

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

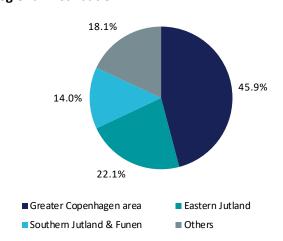
Cover Pool Data

Cover pool volume (EURm)	44,801	Rating (Moody's)	-
Amount outstanding (EURm	n) 42,064	Rating (S&P)	AAA
-thereof ≥ EUR 500m	8.3%	Rating (Fitch)	-
Current OC (nominal)	6.5%	Rating (DBRS)	-
Committed OC	0.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	99% Denmark	Collateral score	-
Main region	46% Greater Copenhagen area	RRL	aa-
Number of loans	134,722	JRL	aaa
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers	s (EUR) n/a	AAA credit risk (%)	2.5%
WAL (cover pool)	24.3y	PCU	-
WAL (covered bonds)	11.8y	Recovery uplift	-
Fixed interest (cover pool)	60.5%	Outstanding ESG BMKs	No
Fixed interest (covered bon	ds) 82.6%	LCR eligible	Yes
LTV (indexed)	51.0%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

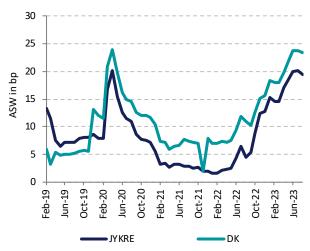
Borrower Types

6.1% 14.7% 79.2% Residential Commercial Multi-family Others

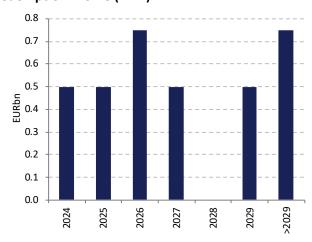
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

Estonia



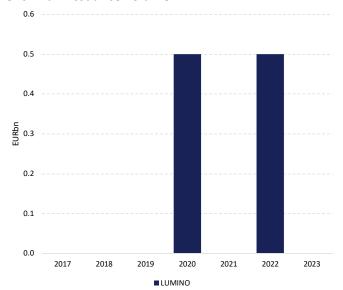
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 3.56bn	Outstanding volume (Bmk)	EUR 1.00bn
Amount outstanding	EUR 2.10bn	Number of benchmarks	2
Number of issuer	2	Outstanding ESG volume (Bmk)	-
No of cover pools	2	Number of ESG benchmarks	-
there of M / PS / others	2/0/0	Outstanding volume (SBmk)	EUR 0.25bn
Ratings (low / high)	AA+ / AA+	Number of subbenchmarks	1
Best possible LCR level	Level 1	Maturity types	SB

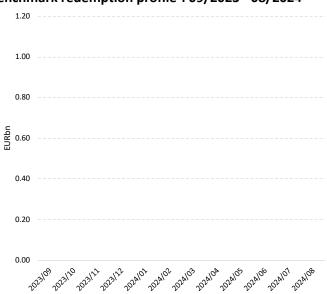
Outstanding benchmark volume¹ (EURbn)

1.000

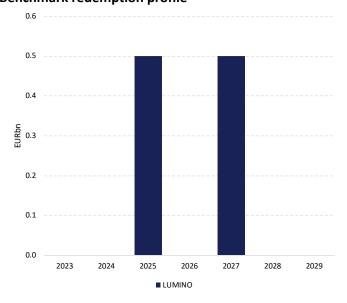
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





LHV Pank

Estonia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

LHV Pank AS

	Rating	Outlook
Fitch	-	-
Moody's*	Baa1	Positive
S&P	-	-

Homepage

www.lhv.ee

*LT Bank Deposits

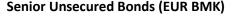
LHV Pank, headquartered in the capital city of Tallinn, is the fourth largest bank in Estonia as measured by assets and is classified as an "other systemically important Institution" (O-SII). LHV Pank is a wholly owned subsidiary of the LHV Group, which has been listed on the Nasdaq Tallinn since 2016. The main shareholder is Rain Löhmus (co-founder and Chairman of the Supervisory Board) with 22.7% (FY 2021). In addition to LHV Pank, the subsidiaries LHV Varahaldus (investment management), LHV Kindlustus (insurance business), EveryPay (payment solution) and LHV UK Ltd. (bank) are also part of the LHV Group. The bank accounts for around 99% of Group assets. LHV Pank employs more than 700 staff, who serve a total of around 378,000 customers from branches in Tallinn, Tartu and Pärnu, as well as the subsidiary in London. The bank offers retail customers deposit and credit products in addition to mortgages, while corporate customers are also offered individual financing solutions. LHV Pank reports in the business segments Retail Banking (FY 2022: 40% of operating income), Corporate Banking (50%), Hire-Purchase and Consumer Finance (8%), Financial Intermediates (12%) and Other Activities (-10%). The lion's share of the loan portfolio consists of corporate loans (54%) and mortgages (33%). According to its own information, LHV Pank has a market share of more than 15% for savings deposits and corporate loans in Estonia. In April 2022, the LHV Group acquired the business EveryPay AS, which is active in the area of cloud-based payments for financial institutes. In May 2023, the subsidiary LHV UK Ltd. received its banking licence. LHV Pank offers its customers sustainable mortgages and property financing.

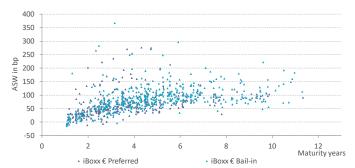
Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	2,677	3,187	3,127
Total Securities	128	365	281
Total Deposits	5,847	4,957	4,919
Tier 1 Common Capital	265	371	369
Total Assets	6,809	6,057	6,003
Total Risk-weighted Assets	1,891	2,216	2,180

Income Statement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	98	129	53
Net Fee & Commission Inc.	31	32	8
Net Trading Income	-2	-0	1
Operating Expense	49	65	21
Credit Commit. Impairment	4	3	-2
Pre-tay Profit	75	94	42

Redemption Profile







Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.64	2.03	3.52	Liquidity Coverage Ratio	140.60	135.60	142.50
ROAE	26.63	25.03	36.81	IFRS Tier 1 Leverage Ratio	3.89	6.13	6.15
Cost-to-Income	38.58	39.92	33.71	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	14.00	16.74	16.91	Reserves/Loans at Amort. Cost	0.71	0.64	0.58

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Liquidity profile
- Cost efficiency

- High credit growth
- Expansion in the SME segment in the UK



LHV Pank - Mortgage

Estonia

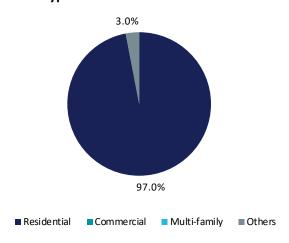


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

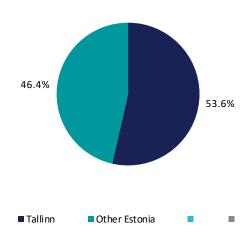
Cover Pool Data

Cover pool volume (EURm)	464	Rating (Moody's)	Aa1
Amount outstanding (EURm)	350	Rating (S&P)	-
-thereof ≥ EUR 250m	71.4%	Rating (Fitch)	-
Current OC (nominal)	32.7%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Improbable
Cover type	Mortgage	TPI leeway	0
Main country	100% Estonia	Collateral score	10.0%
Main region	54% Tallinn	RRL	-
Number of loans	7,439	JRL	-
Number of borrowers	7,193	Unused notches	-
Avg. exposure to borrowers (EUR)	62,599	AAA credit risk (%)	-
WAL (cover pool)	11.6y	PCU	-
WAL (covered bonds)	1.7y	Recovery uplift	-
Fixed interest (cover pool)	0.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	47.2%	LCR level (SBmk)	2A
LTV (unindexed)	58.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

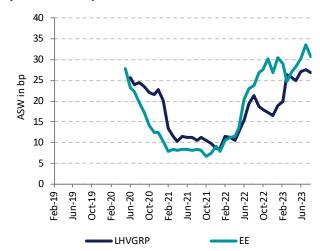
Borrower Types



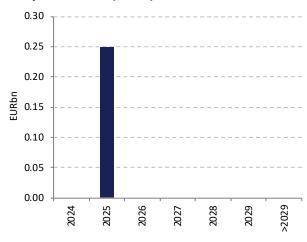
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Luminor Bank

Estonia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Luminor Bank AS/Estonia

	Rating	Outlook
Fitch	-	-
Moody's*	Baa1	Positive
S&P	-	-

Homepage

www.luminor.ee

*Senior Unsecured

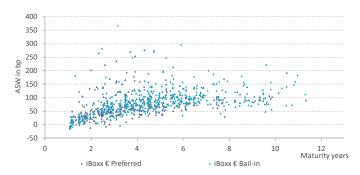
Luminor Bank AS (Luminor) is one of the largest banks in Estonia as measured by assets (FY 2022: EUR 14.8bn). It is active in Estonia, where it has its headquarters, as well as via branches in Latvia and Lithuania. The institution, which specialises in retail banking, also offers services in the segments leasing, pension funds and other activities via its subsidiaries. The bank was formed in 2017 following the merger between DNB Bank ASA (DNB) and Nordea Bank Abp (Nordea) along with their business activities in the three Baltic countries. The owners of Luminor are Braavos Bidcoo Konsortium, which is managed by a Blackstone private equity fund (80%; November 2022) and DNB Bank ASA (20%). Both hold their shares via Luminor Holding AS. At 16% as at FY 2022, Luminor has the third largest market share in the Baltic lending business after Swedbank (32%) and SEB (27%). The bank reports across the business segments Retail (FY 2022: 50% of operating earnings), Corporate (56%) and Other (-6%). The main geographic focus of the loan portfolio is Lithuania (50%), followed by Latvia (27%) and Estonia (23%). Funding consists of customer deposits (86%) and wholesale funding (14%), with the latter breaking down into covered bonds (51%) and senior bonds (49%) respectively. In July 2022, Luminor acquired 99% of the shares in Maksekeskus AS, a leading e-commerce payment service provider in the Baltic region. The bank has committed to reach net zero emissions by 2050 and has also set itself the target of issuing loans in the amount of EUR 700m for sustainable properties and renewable energies by 2030.

Balance Sheet		Income Statement					
(EURm)	2021Y	2022Y	2023Q1	(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	9,947	10,875	10,707	Net Interest Income	239	301	122
Total Securities	687	1,414	1,461	Net Fee & Commission Inc.	79	80	21
Total Deposits	10,305	10,948	11,308	Net Trading Income	21	24	8
Tier 1 Common Capital	1,430	1,408	1,427	Operating Expense	263	233	75
Total Assets	13,317	14,757	15,488	Credit Commit. Impairment	-	-	-
Total Risk-weighted Assets	6,988	7,663	7,288	Pre-tax Profit	82	142	71

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.70	2.13	3.26	Liquidity Coverage Ratio	137.30	138.80	173.60
ROAE	4.47	7.96	14.95	IFRS Tier 1 Leverage Ratio	10.80	9.71	9.36
Cost-to-Income	79.47	59.47	49.87	NPL/Loans at Amortised Cost	1.87	1.23	1.16
Core Tier 1 Ratio	20.46	18.37	19.58	Reserves/Loans at Amort. Cost	1.01	0.92	0.94

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Resolution of NPLs

- Short maturity structures in funding
- Digital infrastructure



Luminor Bank – Mortgage

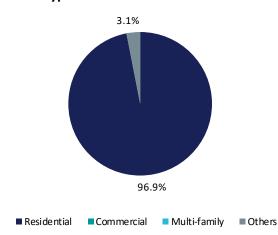
Estonia



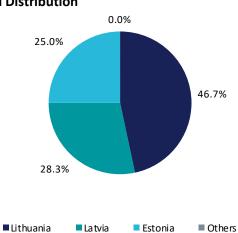
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover pool volume (EURm)	3,095	Rating (Moody's)	Aa1
Amount outstanding (EURm)	1,750	Rating (S&P)	-
-thereof ≥ EUR 500m	57.1%	Rating (Fitch)	-
Current OC (nominal)	76.9%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Improbable
Cover type	Mortgage	TPI leeway	1
Main country	47% Lithuania	Collateral score	10.0%
Main region	27% Other Lithuania	RRL	-
Number of loans	58,992	JRL	-
Number of borrowers	55,122	Unused notches	-
Avg. exposure to borrowers (EUR)	54,424	AAA credit risk (%)	-
WAL (cover pool)	12.1y	PCU	-
WAL (covered bonds)	3.4y	Recovery uplift	-
Fixed interest (cover pool)	1.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	57.1%	LCR eligible	Yes
LTV (indexed)	50.6%	LCR level (Bmk)	1
LTV (unindexed)	63.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



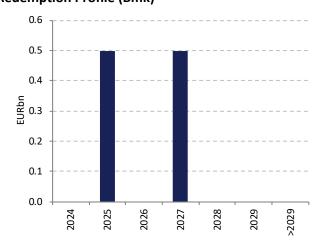
Regional Distribution



Spread Development



Redemption Profile (Bmk)





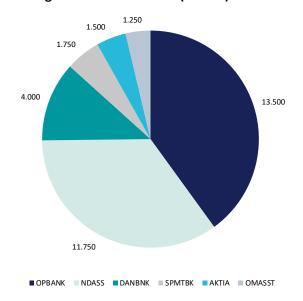
Market Overview Covered Bonds

Finland +

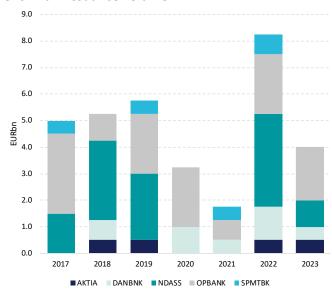
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 57.89bn	Outstanding volume (Bmk)	EUR 33.75bn
Amount outstanding	EUR 49.05bn	Number of benchmarks	37
Number of issuer	9	Outstanding ESG volume (Bmk)	EUR 2.75bn
No of cover pools	14	Number of ESG benchmarks	3
there of M / PS / others	14/0/0	Outstanding volume (SBmk)	EUR 3.95bn
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	13
Best possible LCR level	Level 1	Maturity types	HB, SB

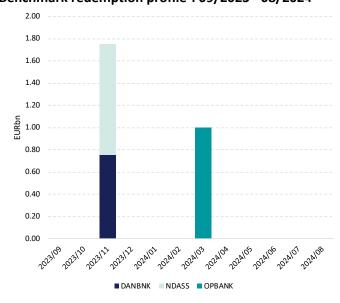
Outstanding benchmark volume¹ (EURbn)



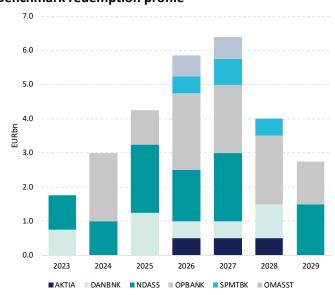
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Aktia Bank

Finland •



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Aktia Bank Oyj

	Rating	Outlook
Fitch	-	-
Moody's*	A2	Negative
S&P	A-	Stable

Homepage

www.aktia.com

* LT Bank Deposits

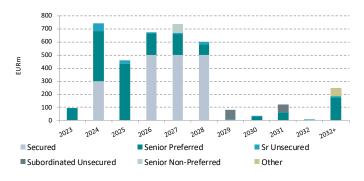
Originally founded in 1826, Aktia Bank plc (Aktia) forms the parent company of the overall group and is listed on the Helsinki stock exchange. The Group focusses exclusively on the Finnish market with its three business segments banking (retail customers: 254,000, business and institutional customers: 20,700), asset management (EUR 13.5bn AuM) and life insurance (97,000 insurance contracts). The bank offers its customers a broad range of products. These include banking and financial services, property financing as well as insurance and asset management activities. The bank reports across the following segments: Banking Business, Asset Management, Group Functions and Other & Eliminations. Around 68.2% of the loan portfolio (as at FY 2022) comprises retail loans, followed by loans to corporate clients (16.7%) and real estate companies (14.4%). Retail customer deposits comprise just above half of the funding mix, with covered bonds accounting for around one fifth. The bank is striving to become the leading bank in the area of wealth management in Finland. In January 2022, the subsidiary Aktia Asset Management was merged with Aktia Bank. In the same year, the Aktia Group joined the Net-Zero Banking Alliance. In order to achieve the targets set by the alliance, the bank plans to first reduce CO2 emissions by 30% from the investment and loan portfolio by 2025, compared with 2019. Furthermore, Aktia intends to develop both a green loan and a green bond framework in 2023 in order to be able to issue sustainable loans and bonds.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	7,486	7,792	7,805
Total Securities	1,831	1,829	1,798
Total Deposits	5,009	5,900	5,585
Tier 1 Common Capital	329	339	347
Total Assets	11,653	12,412	12,122
Total Risk-weighted Assets	2,941	3,131	3,133

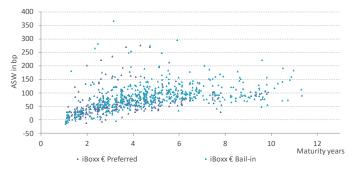
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	96	99	32
Net Fee & Commission Inc.	124	122	30
Net Trading Income	4	1	0
Operating Expense	165	164	46
Credit Commit. Impairment	4	10	1
Pre-tax Profit	85	124	22

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.99	0.95	1.17	Liquidity Coverage Ratio	139.82	183.27	188.00
ROAE	9.55	14.38	11.13	IFRS Tier 1 Leverage Ratio	2.87	2.84	2.98
Cost-to-Income	62.90	54.04	65.38	NPL/Loans at Amortised Cost	1.58	1.78	1.81
Core Tier 1 Ratio	11.19	10.84	11.09	Reserves/Loans at Amort. Cost	0.40	0.48	0.50

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Asset quality
- Diversified sources of revenue
- Franchise in Finland

- Sensitivity towards local housing market
- Dependency on capital market funding
- **Profitability**



Aktia Bank - Mortgage (Pool 2)

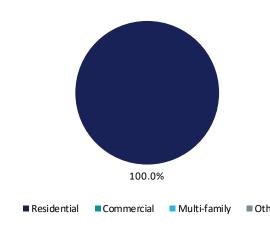
Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

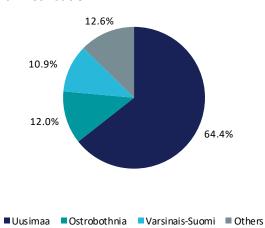
Cover Pool Data

Cover pool volume (EURm)	2,556	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,800	Rating (S&P)	-
-thereof ≥ EUR 500m	83.3%	Rating (Fitch)	-
Current OC (nominal)	42.0%	Rating (DBRS)	-
Committed OC	10.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	100% Finland	Collateral score	5.0%
Main region	64% Uusimaa	RRL	-
Number of loans	34,006	JRL	-
Number of borrowers	24,034	Unused notches	-
Avg. exposure to borrowers (EUR)	106,349	AAA credit risk (%)	-
WAL (cover pool)	7.6y	PCU	-
WAL (covered bonds)	2.5y	Recovery uplift	-
Fixed interest (cover pool)	5.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	45.8%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



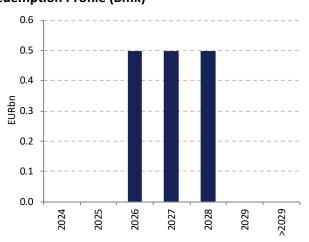
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Alandsbanken

Finland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Alandsbanken Abp

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB+	Negative

Homepage

www.alandsbanken.com

Alandsbanken Abp (Bank of Aland Plc) is a universal bank that operates in Finland and Sweden. The largest shareholder of the bank, which is listed on the Helsinki stock exchange, is Wiklöf Anders and companies (11 May 2023: 15.14%; CEO of Alandsbanken). Wholly owned subsidiaries of Alandsbanken Abp include Alandsbanken Fondbolag (fund management services) and Crosskey Banking Solutions AB (IT). On the Aland islands, the bank offers a broad range of banking services, while on the Finnish mainland and in Sweden, the focus is on businesses as well as wealthy families and retail customers. The bank reports across the operating segments Private Banking, Premium Banking, IT and Corporate and Other. In February 2022, the institution transferred the majority of its Swedish mortgage loans (SEK 10.4bn) and a portion of its covered bonds (SEK 7.5bn) to Borgo AB. Borgo is a Swedish mortgage bank that holds a stake in Alandsbanken amounting to 19.9% (FY 2022). As part of this transaction, the bank received a one-off payment of SEK 9.8m in addition to future sales and services-based fees. Following the conclusion of the transaction with Borgo AB, the funding profile mainly comprises deposits (FY 2022: 77%; FY 2021: 66%) and covered bonds (11%; 19%). As part of its climate strategy, the bank is aiming to become carbon neutral by 2050. To this end, it has set itself three interim targets: a 50% reduction in CO₂ emissions by 2030 as against 2021, carbon neutrality by no later than 2035 and net carbon neutrality by 2050. In addition, the bank placed its first green bond (Tier 2) in December 2021 with a volume of over SEK 150m.

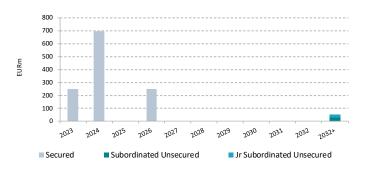
Balance Sheet						
(EURm)	2021Y	2022Y				
Net Loans to Customers	4,788	4,303				
Total Securities	746	1,075				

(EURM)	2021Y	2022Y	2023Q1
Net Loans to Customers	4,788	4,303	4,337
Total Securities	746	1,075	1,085
Total Deposits	4,070	4,182	3,808
Tier 1 Common Capital	239	233	236
Total Assets	6,635	5,898	5,908
Total Risk-weighted Assets	1,976	1,938	1,901

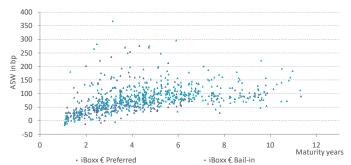
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	62	68	20
Net Fee & Commission Inc.	79	78	18
Net Trading Income	-0	13	1
Operating Expense	122	132	37
Credit Commit. Impairment	5	6	0
Pre-tax Profit	49	46	8

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.02	1.15	1.38	Liquidity Coverage Ratio	151.83	138.08	156.00
ROAE	12.82	11.71	8.15	IFRS Tier 1 Leverage Ratio	3.62	3.99	4.02
Cost-to-Income	71.00	75.62	81.02	NPL/Loans at Amortised Cost	1.28	1.69	1.44
Core Tier 1 Ratio	12.09	12.04	12.41	Reserves/Loans at Amort. Cost	0.32	0.48	0.47

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Business activities in robust regions
- Capitalisation
- Deposit basis

- Regional concentration risks
- Cost efficiency
- Property markets in Finland and Sweden



Alandsbanken – Mortgage (MCBA Pool)

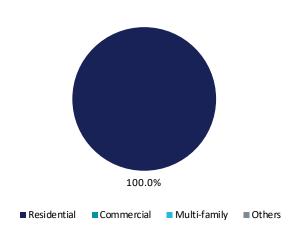
Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

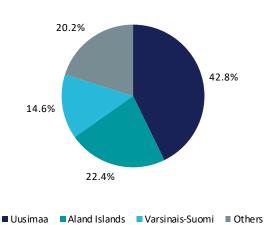
Cover Pool Data

Cover pool volume (EURm)	1,175	Rating (Moody's)	-
Amount outstanding (EURm)	950	Rating (S&P)	AAA
-thereof ≥ EUR 250m	31.6%	Rating (Fitch)	-
Current OC (nominal)	23.7%	Rating (DBRS)	-
Committed OC	12.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	43% Uusimaa	RRL	a
Number of loans	13,094	JRL	aa
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.9%
WAL (cover pool)	8.9y	PCU	-
WAL (covered bonds)	1.1y	Recovery uplift	-
Fixed interest (cover pool)	3.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	57.9%	LCR eligible	Yes
LTV (indexed)	51.9%	LCR level (SBmk)	2A
LTV (unindexed)	54.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

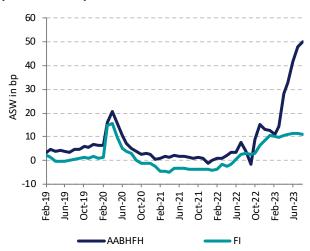
Borrower Types



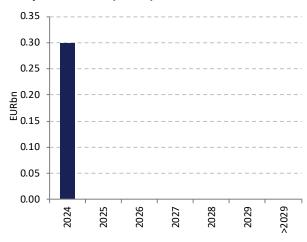
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Alandsbanken – Mortgage (CBA Pool)

Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

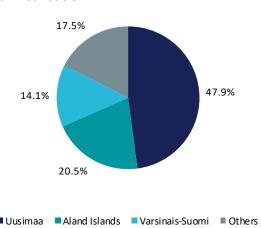
Cover Pool Data

Cover pool volume (EURm)	321	Rating (Moody's)	-
Amount outstanding (EURm)	250	Rating (S&P)	AAA
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	-
Current OC (nominal)	28.3%	Rating (DBRS)	-
Committed OC	12.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	48% Uusimaa	RRL	a
Number of loans	2,693	JRL	aa
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	7.6%
WAL (cover pool)	9.2y	PCU	-
WAL (covered bonds)	3.0y	Recovery uplift	-
Fixed interest (cover pool)	4.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	4.3%	LCR eligible	Yes
LTV (indexed)	57.3%	LCR level (SBmk)	2A
LTV (unindexed)	57.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

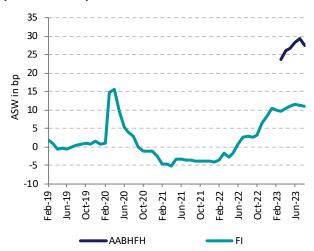
Borrower Types

100.0% Residential Commercial Multi-family Others

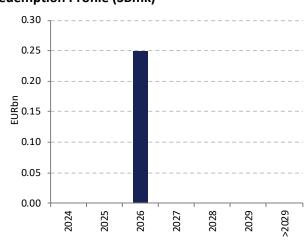
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Danske Bank

Finland •



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Danske Bank A/S

	Rating	Outlook
Fitch	Α	Stable
Moody's	A3	Positive
S&P	A+	Stable

Homepage

www.danskebank.com

Danske Bank A/S (Danske) is a Danish universal bank headquartered in Copenhagen. It is the largest institute in the country as measured by assets. The largest shareholder of the Group, which is listed on the Nasdaq Copenhagen, is the A.P. Moller Holding (Maersk Group) with a stake of 21.0% (18 July 2023). In addition to more than 3.3 million retail customers as well as small and medium-sized enterprises, Danske also serves over 2,000 wholesale and institutional customers in 153 branches across the loans, insurance, pensions and asset management segments, among others. The bank reports in the main business segments Personal Customers (32.5% of operating income; FY 2022), Business Customers (26.9%), Large Corporates & Institutions (28.0%), Danica Pension (0.1%), Northern Ireland (4.2%) and Group Functions (3.9%). The Non Core segment is responsible for the administration and sale of wind-down portfolios. In Denmark, Danske has a market share of 28.4% for deposits (FY 2022), while it holds smaller shares in the other Nordic countries (Finland: 9.7%; Norway: 7.3%; Sweden: 4.6%; data as at Nov. 2022 in each case). The loan portfolio is focused on Denmark (45%), Sweden (12%), Norway (11%) and Finland (8%). A total of 62% of the funding (FY 2022) is attributable to deposits from retail and corporate customers, while 13% consists of deposits from banks. In total, 8% is attributable to covered bonds (45% in SEK, 29% in EUR and 26% in NOK). The sustainable financing business is set to grow to a volume of DKK 300bn by the end of 2023 (FY 2022: DKK 273bn). Investments in sustainably orientated funds amounted to DKK 52.1bn (FY 2022; target for 2023: DKK 150bn).

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	275,970	270,963	266,268
Total Securities	109,393	124,521	115,639
Total Deposits	173,771	169,702	170,841
Tier 1 Common Capital	20,434	20,058	19,831
Total Assets	529,348	509,602	508,911

115,689

112,687

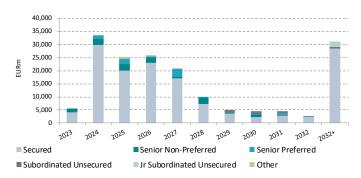
110,339

Income Statement

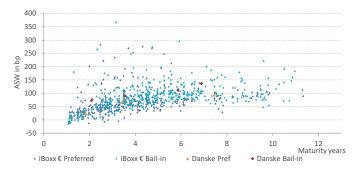
medine statement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	3,600	3,408	1,039
Net Fee & Commission Inc.	1,629	1,678	398
Net Trading Income	4,419	213	257
Operating Expense	4,140	4,058	965
Credit Commit. Impairment	19	202	20
Pre-tax Profit	2,228	-228	934

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.81	0.76	0.97	Liquidity Coverage Ratio	163.68	151.04	169.35
ROAE	7.46	-2.72	12.72	IFRS Tier 1 Leverage Ratio	4.12	4.45	4.32
Cost-to-Income	65.33	68.51	50.28	NPL/Loans at Amortised Cost	4.56	2.98	2.97
Core Tier 1 Ratio	17.66	17.80	17.97	Reserves/Loans at Amort. Cost	2.16	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Asset quality
- Diversified income
- Capitalisation

- Dependency on wholesale funding
- Reputational damage/costs arising from money laundering scandal
- Risks from interest rate hikes and inflation



Danske Bank – Mortgage

Finland

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

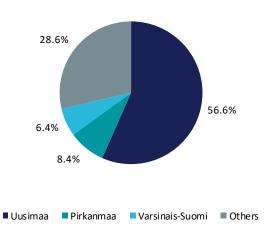
Cover Pool Data

Cover pool volume (EURm)	3,955	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,500	Rating (S&P)	-
-thereof ≥ EUR 500m	92.9%	Rating (Fitch)	-
Current OC (nominal)	13.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Finland	Collateral score	5.0%
Main region	57% Uusimaa	RRL	-
Number of loans	52,336	JRL	-
Number of borrowers	52,336	Unused notches	-
Avg. exposure to borrowers (EUR)	75,575	AAA credit risk (%)	-
WAL (cover pool)	8.5y	PCU	-
WAL (covered bonds)	2.9y	Recovery uplift	-
Fixed interest (cover pool)	1.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	47.8%	LCR level (Bmk)	1
LTV (unindexed)	48.1%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family ■ Ot

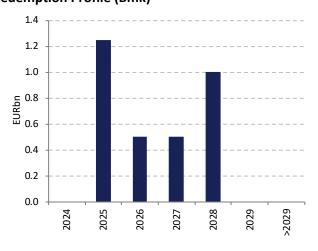
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Nordea Bank

Finland •

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Nordea Bank Abp

	Rating	Outlook
Fitch	AA-	Stable
Moody's	Aa3	Stable
S&P	AA-	Stable

Homepage

www.nordea.com

*Senior Unsecured/LT Bank Deposits

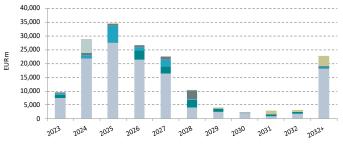
Nordea Bank Abp (headquarters: Helsinki) is the largest bank in the Nordics. It has been listed on the EURO STOXX 50 index since September 2022. The main shareholder of the Group is Nordea-fonden with 8.7% (11 May 2023). The bank enjoys leading market positions in the Nordics, with Sweden accounting for a share of 32% (as at FY 2021) in the overall lending portfolio, followed by Denmark (24%), Norway (22%) and Finland (21%). The loan portfolio comprises mortgages (FY 2022; 47%), loans to businesses (45%) and consumer loans (8%). The bank divides its business into the segments Personal Banking (share of operating earnings in FY 2022: 35.7%), Business Banking (31.5%), Large Corporates & Institutions (26.4%), Asset & Wealth Management (13.2%) as well as Group Functions (-6.8%). In December 2020, the decision was made to withdraw from the bank's Russian business. This withdrawal was concluded in April 2022. In the wake of the war in Ukraine, the bank decided to terminate all asset management investments connected to Russia. Over the long term, the institute is pursuing the integration of sustainability concepts into its business model. In this vein, it is set to reach its target of net zero CO₂ emissions by no later than 2050. In addition to this long-term target, the bank is also planning to reduce emissions connected with its investment and loan portfolio by at least 40%-50% by 2030 opposed to 2019, as well as direct a volume of EUR 200bn to sustainable financing by 2025. In March 2022, Nordea announced that it was set to acquire the Danish pensions and life insurance company Topdanmark Life (EUR 12bn AuM) for the price of EUR 283m. This transaction was concluded on 01 December 2022.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	345,050	345,743	339,746
Total Securities	110,403	118,787	125,047
Total Deposits	205,801	217,464	217,672
Tier 1 Common Capital	25,880	23,872	22,279
Total Assets	570,353	594,729	604,125
Total Risk-weighted Assets	151.906	145.299	141.976

Income Statement

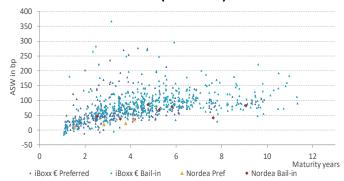
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	4,925	5,664	1,765
Net Fee & Commission Inc.	3,495	3,186	765
Net Trading Income	1,105	1,184	330
Operating Expense	4,590	4,809	1,415
Credit Commit. Impairment	118	36	21
Pre-tax Profit	4,936	4,762	1,480

Redemption Profile



■ Secured ■ Senior Non-Preferred ■ Senior Preferred ■ Sr Unsecured ■ 1st Lien Secured ■ Other

Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.94	1.04	1.32	Liquidity Coverage Ratio	160.15	161.95	161.27
ROAE	10.92	11.66	15.56	IFRS Tier 1 Leverage Ratio	4.84	4.32	3.91
Cost-to-Income	47.30	46.94	48.41	NPL/Loans at Amortised Cost	0.69	0.42	0.43
Core Tier 1 Ratio	17.04	16.43	15.69	Reserves/Loans at Amort. Cost	0.81	0.59	0.60

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in the Nordics
- Capitalisation
- Diversification (geographic and services)

- Dependency on wholesale funding
- Economic development
- Property market in Sweden and Norway



Nordea Mortgage Bank – Mortgage Cover Pool 1

Finland +

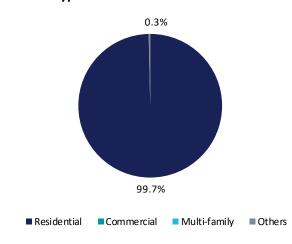


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

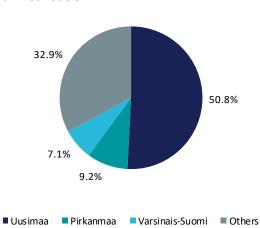
Cover Pool Data

Cover pool volume (EURm)	20,689	Rating (Moody's)	Aaa
Amount outstanding (EURm)	18,117	Rating (S&P)	-
-thereof ≥ EUR 500m	42.8%	Rating (Fitch)	-
Current OC (nominal)	14.2%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	5
Main country	100% Finland	Collateral score	5.0%
Main region	51% Uusimaa	RRL	-
Number of loans	275,810	JRL	-
Number of borrowers	213,630	Unused notches	-
Avg. exposure to borrowers (EUR)	96,847	AAA credit risk (%)	-
WAL (cover pool)	10.2y	PCU	-
WAL (covered bonds)	3.2y	Recovery uplift	-
Fixed interest (cover pool)	1.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	52.8%	LCR eligible	Yes
LTV (indexed)	52.5%	LCR level (Bmk)	1
LTV (unindexed)	52.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

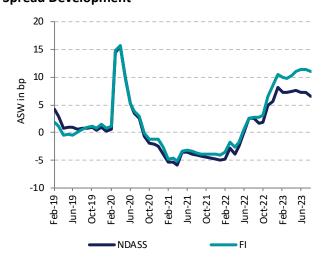
Borrower Types



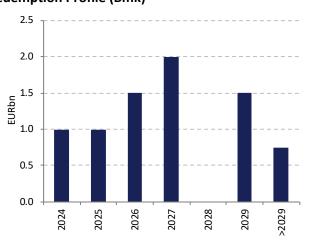
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Nordea Mortgage Bank – Mortgage Cover Pool 2

Finland **+**

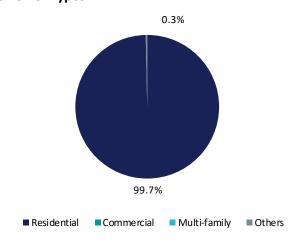


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

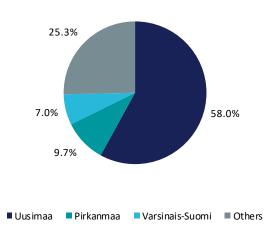
Cover Pool Data

Cover pool volume (EURm)	3,317	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,000	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	10.6%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Finland	Collateral score	5.0%
Main region	58% Uusimaa	RRL	-
Number of loans	36,241	JRL	-
Number of borrowers	33,821	Unused notches	-
Avg. exposure to borrowers (EUR)	98,070	AAA credit risk (%)	-
WAL (cover pool)	11.0y	PCU	-
WAL (covered bonds)	6.4y	Recovery uplift	-
Fixed interest (cover pool)	1.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	57.6%	LCR level (Bmk)	1
LTV (unindexed)	57.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

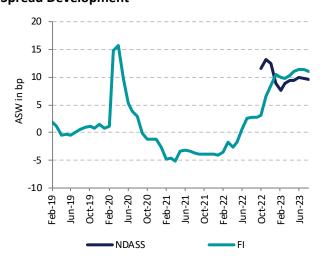
Borrower Types



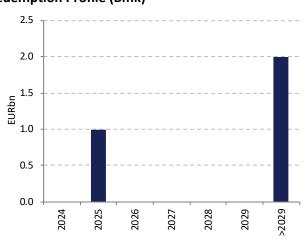
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Oma Säästöpankki

Finland •



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Oma Säästöpankki Oyj

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB+	Stable

Homepage

www.omasp.fi

Oma Savings Bank Plc (Oma Säästöpankki Oyj; short: Oma) is the largest savings bank in Finland as measured by total assets. It has 450 employees, who serve approximately 200,000 customers across 45 locations. Oma's main strategic focus is on business with retail customers, SMEs as well as agricultural and forestry concerns, with the focus on the retail customer sector in around 80% of cases. Oma offers its customers a wide range of services - daily banking activities, lending and asset management. In total, seven savings bank associations hold a stake of around 70% (as at FY 2022) in Oma, which has been listed on the Helsinki stock exchange since 2018. The main shareholder is the South Karelia savings bank association (FY 2022: 30.2%). The Oma Savings Bank Group includes the real estate company Lappeenrannan Säästökeskus (wholly owned subsidiary) as well as minority shares in different companies and joint ventures. Retail customers account for 60% of the loan portfolio (FY 2022) and corporate customers comprise 23%, while 10%, 6% and 2% is attributable to property companies, the agricultural industry and other loans respectively. In June 2022, the acquisition of the banking business of Liedon Savings Bank (LSB) was announced. The transaction was concluded on 28 February 2023. With this acquisition, Oma is consolidating its market position in south-western Finland. Deposits comprise the lion's share of the funding mix at just over 50% of total assets (FY 2022). This is followed by covered bonds at around 35%. Additionally, Oma plans to make its own operations carbon neutral by 2026.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	4,326	4,754	5,967
Total Securities	646	553	562
Total Deposits	2,898	3,112	3,927
Tier 1 Common Capital	372	339	416
Total Assets	5,373	5,942	7,299
Total Risk-weighted Assets	2,398	2,547	3,070

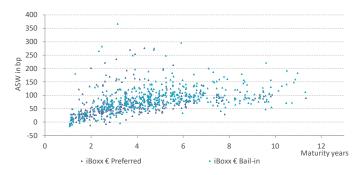
Income Statement

income statement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	80	105	36
Net Fee & Commission Inc.	34	39	10
Net Trading Income	5	-6	1
Operating Expense	51	72	24
Credit Commit. Impairment	7	2	1
Pro-tay Profit	83	69	23

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.72	1.87	2.23	Liquidity Coverage Ratio	132.99	140.85	126.20
ROAE	17.67	15.16	18.62	IFRS Tier 1 Leverage Ratio	6.94	5.73	5.72
Cost-to-Income	41.74	49.63	46.96	NPL/Loans at Amortised Cost	0.65	0.57	-
Core Tier 1 Ratio	15.51	13.33	13.56	Reserves/Loans at Amort. Cost	0.66	0.52	0.64

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Regional franchise
- Capitalisation
- · Income generation

- Concentration risks
- Dependency on partner products
- High balance sheet growth → Risk propensity



Oma Säästöpankki – Mortgage

Finland +

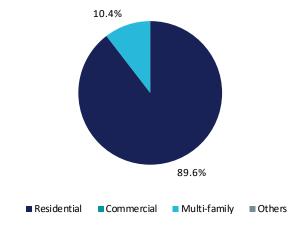
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

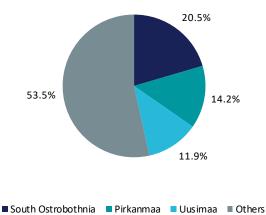
Cover Pool Data

Cover pool volume (EURm)	2,470	Rating (Moody's)	-
Amount outstanding (EURm)	1,900	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	30.0%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	20% South Ostrobothnia	RRL	a
Number of loans	34,043	JRL	aa
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	7.3%
WAL (cover pool)	8.1y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	14.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	65.0%	LCR level (Bmk)	1
LTV (unindexed)	63.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

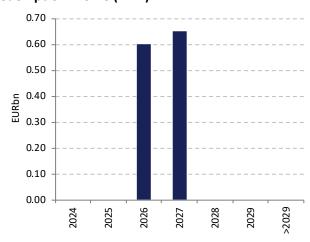
Regional Distribution





Spread Development

Redemption Profile (Bmk)





OP Financial Group

Finland •



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

OP Corporate Bank plc

Rating	Outlook
-	-
Aa3	Stable
AA-	Stable
	- Aa3

Homepage

www.op.fi

The OP Financial Group (OP FG) is the largest banking and insurance group in Finland as measured by market shares and the second largest in terms of assets. It comprises a wide range of subsidiaries as well as 108 independent member institutions. It serves 2.1m customers, who are also owners of the Group (FY 2022). The subsidiaries include OP Corporate Bank and OP Mortgage Bank. The Group reports across the following segments: Retail Banking (FY 2022: 39.7% of pre-tax profit), Insurance (34.2%), Corporate Banking (32.9%), Group Functions (7.2% loss) and Eliminations (0.3%). The Group boasts market shares of 38.3% and 37.6% for mortgage loans and corporate loans respectively (FY 2022). In the insurance sector, market penetration stands at 32.4% for non-life insurance and 27.6% for life insurance. In addition, OP FG has a market share of 39% for deposits. Covered bonds, which are issued via the subsidiary OP Mortgage Bank, comprise just under 30% of wholesale funding. OP FG has set itself the long-term aim of supporting the transformation to a climate-friendly economy with its 2050 sustainability goals. To this end, the Group has issued green bonds with a total value of over EUR 1.7bn since 2019, which include a green covered bond in 2021 worth EUR 700m. OP FG has also issued a total of EUR 5.2bn in green and sustainable loans (as at the end of 2022). In the area of asset management, OP FG also plans to withdraw from its activities in coal extraction and coal-fired energy generation by 2030.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	96,947	98,546	97,253
Total Securities	25,525	24,156	24,103
Total Deposits	77,898	81,468	75,419
Tier 1 Common Capital	11,965	12,569	13,338
Total Assets	174.110	175.691	157.757

65,731

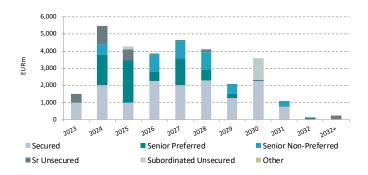
72,327

72,857

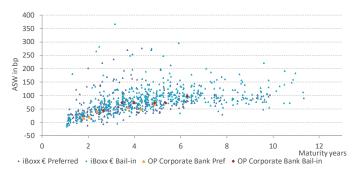
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	1,409	1,618	615
Net Fee & Commission Inc.	1,034	942	244
Net Trading Income	112	-1,981	507
Operating Expense	2,189	2,159	608
Credit Commit. Impairment	158	115	21
Pre-tax Profit	1,127	1,120	480

Total Risk-weighted Assets **Redemption Profile**



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.93	1.06	1.65	Liquidity Coverage Ratio	229.69	216.20	221.86
ROAE	6.70	6.45	10.40	IFRS Tier 1 Leverage Ratio	7.01	7.39	8.73
Cost-to-Income	60.62	63.63	54.63	NPL/Loans at Amortised Cost	2.85	2.78	2.98
Core Tier 1 Ratio	18.20	17.38	18.31	Reserves/Loans at Amort. Cost	0.73	0.71	0.73

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market penetration in Finland
- Capitalisation
- Association of cooperatives

- Dependency on capital market funding
- Geographical concentration
- Cost efficiency



OP Mortgage Bank – Mortgage (EMTCN Pool)

Finland +



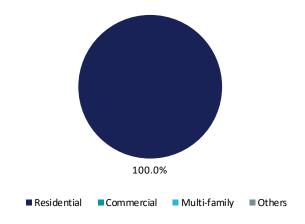
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

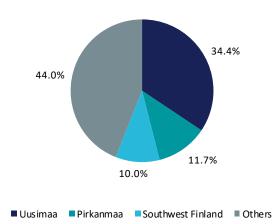
Cover Pool Data

Cover pool volume (EURm)	14,993	Rating (Moody's)	Aaa
Amount outstanding (EURm)	12,915	Rating (S&P)	AAA
-thereof ≥ EUR 500m	71.6%	Rating (Fitch)	-
Current OC (nominal)	16.1%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Finland	Collateral score	5.0%
Main region	34% Uusimaa	RRL	aa+
Number of loans	238,321	JRL	aa+
Number of borrowers	363,778	Unused notches	5
Avg. exposure to borrowers (EUR)	41,215	AAA credit risk (%)	5.2%
WAL (cover pool)	8.9y	PCU	-
WAL (covered bonds)	3.7y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	89.9%	LCR eligible	Yes
LTV (indexed)	52.1%	LCR level (Bmk)	1
LTV (unindexed)	61.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

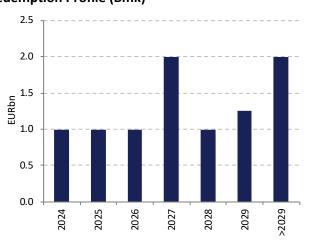




Spread Development

20 15 ASW in bp 5 -5 -10

Redemption Profile (Bmk)





OP Mortgage Bank – Mortgage (EMTCB Pool)

Finland +



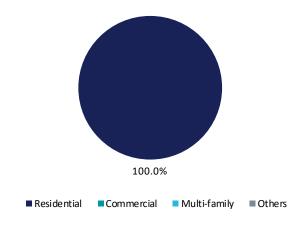
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

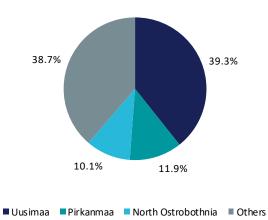
Cover Pool Data

Cover pool volume (EURm)	2,479	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,250	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	10.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Finland	Collateral score	5.0%
Main region	39% Uusimaa	RRL	-
Number of loans	64,380	JRL	-
Number of borrowers	93,746	Unused notches	-
Avg. exposure to borrowers (EUR)	26,447	AAA credit risk (%)	-
WAL (cover pool)	7.9y	PCU	-
WAL (covered bonds)	4.8y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	40.6%	LCR level (Bmk)	1
LTV (unindexed)	43.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

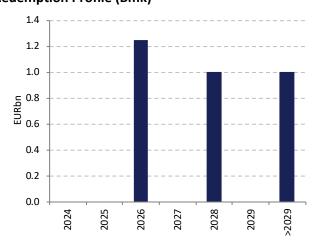




Spread Development

20 15 ASW in bp 5 0 -5 -10 Feb-20 Feb-21

Redemption Profile (Bmk)





POP Bank

Finland •



2022Y

94

42

-1

8

26

113

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

POP Bank Group

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

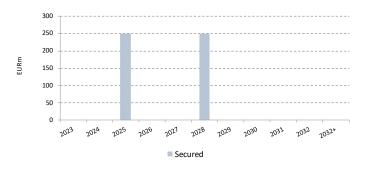
Homepage

www.poppankki.fi

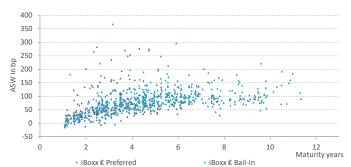
POP Mortage Bank (POPMB) is a wholly owned subsidiary of POP Bank Centre Coop (POPC) and serves as a funding vehicle for the POP Bank Group. The POP Bank Group comprises 19 cooperative banks, the main entity POPC, the funding vehicle POPMB and the central credit entity Bonum Bank (Bonum). As the main entity, POPC takes on the management tasks for its members within the Group. There is also a joint and several liability in place between the individual institutes within the Group. The POP Bank Group offers insurance services for private individuals via its subsidiary Finnish P&C Insurance LTD in addition to banking services. In May 2023, the supervisor approved the sale of 70% of the shares in P&C Insurance LTD to LocalTapiola. According to POPC, the transaction will have a significant positive impact on the result in 2023. Geographically, the focus is on the growth centres in the central, western and southern regions of Finland. The Group reports in the two operating segments Banking and Insurance. The bank's customers are categorised into retail and corporate customers (share in the loan portfolio as at FY 2022: 64% and 23% respectively) and customers from the agricultural sector (13%). The lion's share of the loan mix is comprised of residential mortgages (63%) and other property loans (28%). In May 2022, the ECB authorised POPMB to carry out its mortgage business, with POPMB initiating a covered bond issuance programme in June 2022 (total volume: EUR 1bn). In September 2022, POPMB placed its first covered bond in the EUR sub-benchmark segment in a volume of EUR 250m.

Balance Sheet		Income Statement						
(EURm)	2020Y	2021Y	2022Y	(EURm)	2020Y	2021Y		
Net Loans to Customers	3,868	4,244	4,448	Net Interest Income	74	78		
Total Securities	658	656	688	Net Fee & Commission Inc.	31	36		
Total Deposits	4,086	4,222	4,326	Net Trading Income	-2	0		
Tier 1 Common Capital	513	530	556	Operating Expense	104	108		
Total Assets	5,098	5,358	5,777	Credit Commit. Impairment	6	12		
Total Risk-weighted Assets	2.578	2.766	2.872	Pre-tax Profit	13	45		

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.58	1.53	1.73	Liquidity Coverage Ratio	196.82	167.85	168.74
ROAE	2.16	6.94	3.79	IFRS Tier 1 Leverage Ratio	10.09	9.90	9.67
Cost-to-Income	83.27	79.46	88.58	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	19.90	19.15	19.37	Reserves/Loans at Amort. Cost	0.83	0.85	0.92

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Diversified sources of revenue
- Regional franchise

- Concentration risks in lending segment
- Cost efficiency
- Earning power



POP Mortgage Bank - Mortgage

Finland +

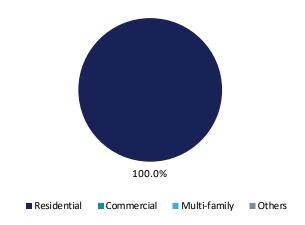
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

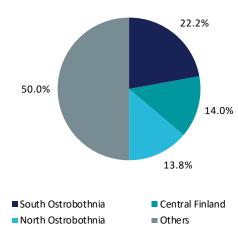
Cover Pool Data

Cover pool volume (EURm)	334	Rating (Moody's)	-
Amount outstanding (EURm)	250	Rating (S&P)	AAA
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	-
Current OC (nominal)	33.4%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	22% South Ostrobothnia	RRL	a-
Number of loans	6,928	JRL	aa-
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	5.4%
WAL (cover pool)	7.5y	PCU	4
WAL (covered bonds)	2.5y	Recovery uplift	-
Fixed interest (cover pool)	5.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	65.9%	LCR level (SBmk)	2A
LTV (unindexed)	63.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types

Regional Distribution

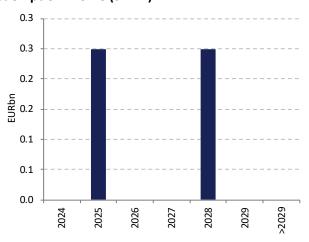




Spread Development

ASW in bp Reb-19 Oct-19 Cot-19 Lun-12 Jun-21 Jun-22 Leb-23 Leb-23 Leb-19 Oct-20 Cot-21 Feb-22 Lun-22 Jun-22 Leb-23 Leb-23 Leb-23 Leb-23 Leb-23 Leb-23 Leb-23

Redemption Profile (SBmk)





Sp Mortgage Bank/Savings Bank Group

Finland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Savings Banks Group/The

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.saastopankki.fi

Sp Mortgage Bank (SP-Kiinnitysluottopankki Oyj) is the covered bond funding vehicle for the Finnish Savings Bank Group (SBG). The bank's remit is limited exclusively to the issuance of covered bonds. The bank does not have its own customer base or distribution network, with its operating activities offered instead via the Finnish Savings Bank Group. Two mergers took place within SBG in 2022 and one savings bank left the Group in 2023, leaving 14 savings banks. In accordance with the Amalgamation Act, the savings banks, the Central Bank of Savings Banks Finland (CBSBF) and Sp Mortgage Bank are liable for debts and liabilities on a joint and several basis. SBG reports across the following segments: Banking (share of pretax profit in FY 2022: 56.8%) and Asset Management Services (43.2%). A total of 67.7% of the loan portfolio comprises loans to private individuals (FY 2022), while corporate loans account for 24.4% and 7.8% is attributable to agricultural and other loans. By the same token, 59.1% of all loans issued were property loans. In September 2022, Liedon Savings Bank (LSB; part of SBG) announced on 28 February 2023 that it would be leaving the Savings Bank Amalgamation. On 28 November 2022, an agreement was concluded for the sale of all mortgages issued by LSB and held by Sp Mortgage Bank (approximately EUR 245m) to the Oma Savings Bank (Oma). This transaction is part of a larger deal, in which LSB is selling its banking business to Oma. In order to strengthen cohesion within the Amalgamation (SBG), a pre-emption agreement was signed by its members at the end of 2022.

Balance Sheet (Savings Bank Group)

2020Y	2021Y	2022Y
9,284	9,603	9,024
1,197	975	762
7,779	7,682	6,994
1,070	1,097	1,091
13,097	13,079	13,780
5,639	5,627	5,837
	9,284 1,197 7,779 1,070 13,097	9,284 9,603 1,197 975 7,779 7,682 1,070 1,097 13,097 13,079

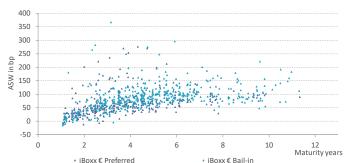
Income Statement (Savings Bank Group)

	,	1- /	
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	161	152	170
Net Fee & Commission Inc.	100	101	103
Net Trading Income	18	12	-9
Operating Expense	217	218	221
Credit Commit. Impairment	15	4	11
Pre-tax Profit	67	78	84

Redemption Profile (Sp Mortgage Bank)



Senior Unsecured Bonds (EUR BMK)



Company Ratios (Savings Bank Group)

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.42	1.30	1.48	Liquidity Coverage Ratio	196.29	160.56	147.77
ROAE	4.58	6.20	6.59	IFRS Tier 1 Leverage Ratio	8.19	8.42	8.08
Cost-to-Income	70.82	73.11	74.90	NPL/Loans at Amortised Cost	2.56	2.00	2.37
Core Tier 1 Ratio	18.97	19.49	18.68	Reserves/Loans at Amort. Cost	0.45	0.43	0.48

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Regional franchise

- Diversification of income
- Asset quality



Sp Mortgage Bank – Mortgage (SP-01)

Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

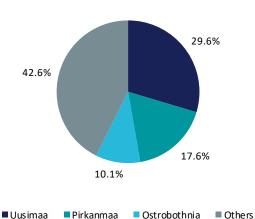
Cover pool volume (EURm)	1,945	Rating (Moody's)	-
Amount outstanding (EURm)	1,300	Rating (S&P)	AAA
-thereof ≥ EUR 500m	76.9%	Rating (Fitch)	-
Current OC (nominal)	49.6%	Rating (DBRS)	-
Committed OC	16.1%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	30% Uusimaa	RRL	a+
Number of loans	24,446	JRL	aa+
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	14.0%
WAL (cover pool)	8.9y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	14.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	55.8%	LCR level (Bmk)	1
LTV (unindexed)	57.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

100.0%

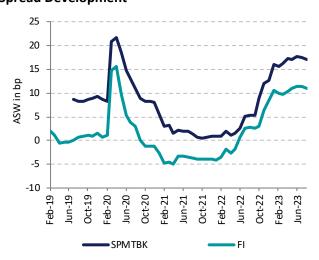
■Commercial ■ Multi-family



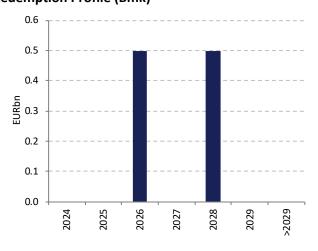


Spread Development

■ Residential



Redemption Profile (Bmk)



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus



Sp Mortgage Bank – Mortgage (SP-02)

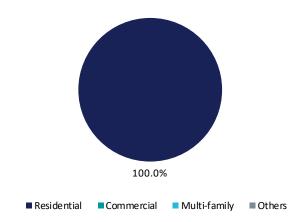
Finland +

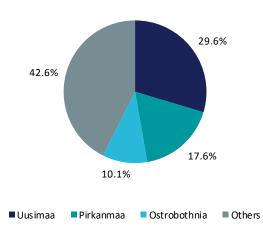
Cover Pool Data

Cover pool volume (EURm)	976	Rating (Moody's)	-
Amount outstanding (EURm)	750	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	30.2%	Rating (DBRS)	-
Committed OC	17.9%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	30% Uusimaa	RRL	a+
Number of loans	24,206	JRL	aa+
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	17.9%
WAL (cover pool)	8.0y	PCU	-
WAL (covered bonds)	4.3y	Recovery uplift	-
Fixed interest (cover pool)	14.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	60.5%	LCR level (Bmk)	1
LTV (unindexed)	61.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

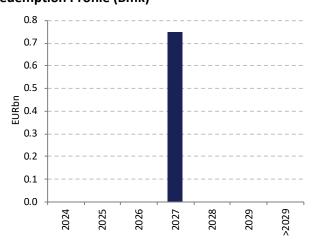




Spread Development

30 25 20 ASW in bp 15 10 5 0 -5 -10 Feb-21

Redemption Profile (Bmk)





Suomen Hypoteekkiyhdistys

Finland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Suomen Hypoteekkiyhdistys

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB	Stable

Homepage

www.hypo.fi

Founded in 1860, The Mortgage Society of Finland Group (Suomen Hypoteekkiyhdistys; short: Hypo) is a Finnish bank that exclusively specialises in the financing of residential property. Since 2002, deposit products and retail customer services have also been offered via the wholly owned subsidiary AsuntoHypoPankki Oy. Furthermore, Hypo holds a stake of 54.6% (as at FY 2022) in the real estate management firm Bostadsaktiebolaget Taos. Hypo is a cooperative bank and is therefore owned by its member customers. A total of 63 staff, of which 50 are financing specialists, serve a client base of approximately 29,000 customers from its headquarters in Helsinki. Hypos's customers can be categorised into two main groups. The largest customer group is property companies with renovation loans (68% of the loan portfolio FY 2022), while retail customers with own-home mortgages and buy-tolet account for the second largest group (30%). As at FY 2022, the loan portfolio grew by 3.8% to EUR 2.7bn (FY 2021: EUR 2.6bn). According to Hypo, all loans issued are backed by residential property. The share of customer deposits in the funding mix has reduced by 11.9% to EUR 1.5bn (FY 2022), while overall funding has risen by 1.0% to EUR 3.2bn. Deposits contribute a total of 46% to the bank's funding, while covered bonds account for 50% (FY 2022). Hypo's business is above all concentrated on the growth regions of Finland, with Helsinki forming a particular focal point. In order to consolidate the bank's business activities, a new core banking system was launched at the start of 2022, enabling Hypo to develop its own products and services on its own system.

Balance Sheet				
(EURm)	2021Y	2022Y	2023Q1	
Net Loans to Customers	2,637	2,750	2,787	
Total Securities	206	143	108	
Total Deposits	1,670	1,471	1,331	
Tier 1 Common Capital	128	137	136	
Total Assets	3,325	3,461	3,627	

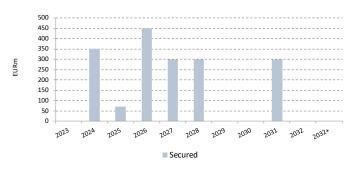
944

Income Statement

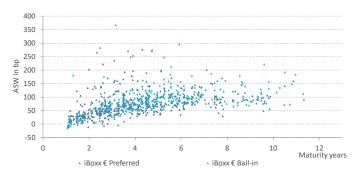
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	17	15	5
Net Fee & Commission Inc.	4	4	1
Net Trading Income	2	3	-0
Operating Expense	18	18	6
Credit Commit. Impairment	0	0	0
Pre-tay Profit	8	7	0

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.53	0.48	0.56	Liquidity Coverage Ratio	179.94	201.63	142.40
ROAE	4.67	3.95	0.35	IFRS Tier 1 Leverage Ratio	3.88	4.10	3.87
Cost-to-Income	68.95	71.18	91.49	NPL/Loans at Amortised Cost	0.15	0.15	0.15
Core Tier 1 Ratio	13.58	13.81	13.64	Reserves/Loans at Amort. Cost	0.01	0.01	0.01

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

992

998

Strengths / Opportunities

- Capitalisation
- Conservative loan issuance standards
- Asset quality

- Concentration risks in lending business
- Deposit basis in comparison with peers
- Diversification of income sources (Monoline)



Suomen Hypo – Mortgage (Pool 1)

Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

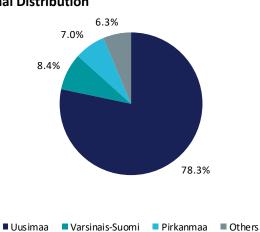
Cover Pool Data

1,926	Rating (Moody's)	-
1,470	Rating (S&P)	AAA
74.8%	Rating (Fitch)	-
31.0%	Rating (DBRS)	-
-	TPI	-
Mortgage	TPI leeway	-
100% Finland	Collateral score	-
78% Uusimaa	RRL	a-
7,032	JRL	aa-
n/a	Unused notches	0
n/a	AAA credit risk (%)	2.5%
8.0y	PCU	-
2.2y	Recovery uplift	-
2.6%	Outstanding ESG BMKs	No
95.2%	LCR eligible	Yes
32.6%	LCR level (SBmk)	2A
32.5%	Risk weight	10%
0.0%	Maturity structure (SBmk)	SB
	1,470 74.8% 31.0% 	1,470 Rating (S&P) 74.8% Rating (Fitch) 31.0% Rating (DBRS) - TPI Mortgage TPI leeway 100% Finland Collateral score 78% Uusimaa RRL 7,032 JRL n/a Unused notches n/a AAA credit risk (%) 8.0y PCU 2.2y Recovery uplift 2.6% Outstanding ESG BMKs 95.2% LCR eligible 32.6% LCR level (SBmk) 32.5% Risk weight

Borrower Types

14.0% 29.7% 56.2% Residential Commercial Multi-family Of

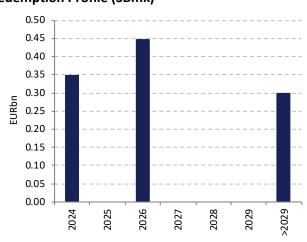
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Suomen Hypo – Mortgage (Pool 2)

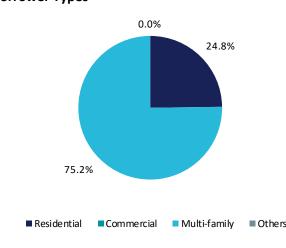
Finland +

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

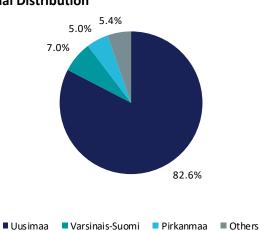
Cover Pool Data

Cover pool volume (EURm)	756	Rating (Moody's)	-
Amount outstanding (EURm)	600	Rating (S&P)	AAA
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	-
Current OC (nominal)	26.0%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Finland	Collateral score	-
Main region	83% Uusimaa	RRL	a-
Number of loans	3,433	JRL	aa-
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	9.3%
WAL (cover pool)	7.4y	PCU	-
WAL (covered bonds)	5.0y	Recovery uplift	-
Fixed interest (cover pool)	1.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	25.9%	LCR level (SBmk)	2A
LTV (unindexed)	25.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types



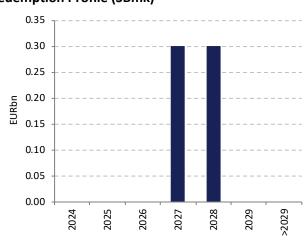
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Market Overview Covered Bonds

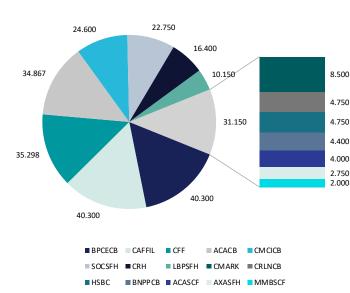
France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 468.98bn	Outstanding volume (Bmk)	EUR 255.82bn
Amount outstanding	EUR 364.64bn	Number of benchmarks	245
Number of issuer	16	Outstanding ESG volume (Bmk)	EUR 19.25bn
No of cover pools	16	Number of ESG benchmarks	19
there of M / PS / others	13/3/0	Outstanding volume (SBmk)	EUR 0.25bn
Ratings (low / high)	AA+ / AAA	Number of subbenchmarks	1
Best possible LCR level	Level 1	Maturity types	HB, SB

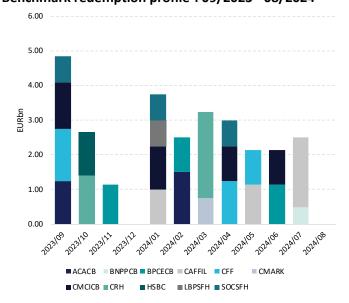
Outstanding benchmark volume¹ (EURbn)



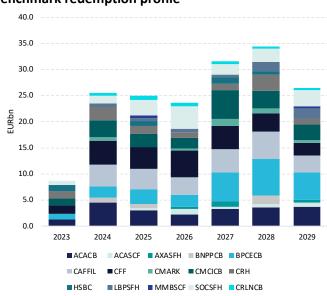
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



AXA Bank Belgium/AXA Bank Europe SCF

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

AXA Bank Belgium SA

	Rating	Outlook
Fitch	-	-
Moody's*	А3	Stable
S&P	BBB+	Stable

Homepage

www.axabank.be

* LT Bank Deposits

AXA Bank Europe Societe de Credit Foncier (AXA SCF) is a French subsidiary of the Belgian AXA Bank Belgium SA/NV, which holds 99.9% of the shares. On 31 December 2021, CrelanCo (Belgian cooperative group) acquired ABB in full from the former 100% shareholder AXA Group. According to the plans drawn up, ABB will merge with the Belgian banking subsidiary of CrelanCo (Crelan) by the end of Q2 2024. Until this time, AXA SCF will remain a subsidiary of ABB, but thereafter AXA SCF will become a direct subsidiary of Crelan. After the takeover, the Crelan Group will be Belgium's fifth-largest banking group as measured by market share for deposits and residential mortgages in Belgium. In this context, Crelan would be a domestic systemically important bank (D-SIB) in Belgium following the acquisition of ABB. Since AXA SCF does not run its own operational business, rather it only serves to refinance ABB via covered bond issuances, we refer here to the financial data of the liable parent company ABB. For its part, ABB operates as a retail bank in the Belgian market, offering its customers everyday banking products, mortgages and consumer credit, in addition to various investment opportunities. It serves more than 858,000 customers across 333 independent bank branches with 660 employees in Belgium. In terms of new mortgage business, ABB lent EUR 3.2bn in 2022. This corresponds to a market share of 7.1% in this area. The main components of ABB's "stable funding" are customer deposits and covered bonds, which account for shares of EUR 20bn and EUR 5.9bn respectively (FY 2022).

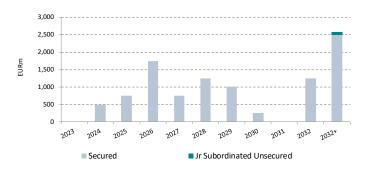
Balance Sheet (AXA Bank Belgium)

(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	24,100	25,909	26,980
Total Securities	1,987	1,091	-
Total Deposits	21,351	20,836	20,927
Tier 1 Common Capital	1,102	1,192	1,082
Total Assets	30,458	29,281	29,897
Total Risk-weighted Assets	5,995	5,949	4,147

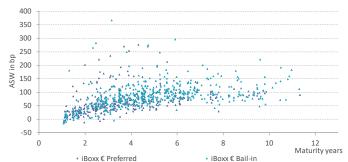
Income Statement (AXA Bank Belgium)

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	273	290	352
Net Fee & Commission Inc.	13	17	19
Net Trading Income	20	17	-4
Operating Expense	211	212	254
Credit Commit. Impairment	25	0	11
Pre-tax Profit	87	128	118

Redemption Profile (ABB)



Senior Unsecured Bonds (EUR BMK)



Company Ratios (AXA Bank Belgium)

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.93	0.98	1.20	Liquidity Coverage Ratio	196.66	186.00	211.00
ROAE	5.50	7.31	5.99	IFRS Tier 1 Leverage Ratio	3.64	4.08	3.63
Cost-to-Income	65.42	62.26	66.22	NPL/Loans at Amortised Cost	1.48	1.11	0.89
Core Tier 1 Ratio	18.38	20.04	26.09	Reserves/Loans at Amort. Cost	0.37	0.29	0.28

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- National market position
- Funding structure
- Loan quality

- Concentration risks (mortgages in BE)
- Profitability
- Diversification of income sources



AXA Bank Europe SCF - Mortgage

France



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

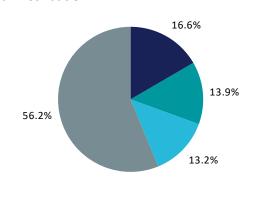
Cover pool volume (EURm)	11,720	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,250	Rating (S&P)	-
-thereof ≥ EUR 500m	51.4%	Rating (Fitch)	-
Current OC (nominal)	26.7%	Rating (DBRS)	-
Committed OC	12.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% Belgium	Collateral score	5.0%
Main region	17% Antwerpen	RRL	-
Number of loans	131,620	JRL	-
Number of borrowers	145,253	Unused notches	-
Avg. exposure to borrowers (EUR)	75,973	AAA credit risk (%)	-
WAL (cover pool)	8.4y	PCU	-
WAL (covered bonds)	6.4y	Recovery uplift	-
Fixed interest (cover pool)	95.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	62.2%	LCR eligible	Yes
LTV (indexed)	47.5%	LCR level (Bmk)	1
LTV (unindexed)	60.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

94.2%

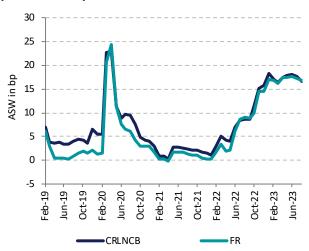


Regional Distribution

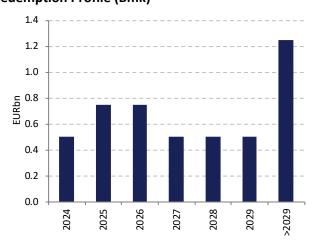




Spread Development



Redemption Profile (Bmk)





AXA Banque/AXA Home Loan SFH

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

AXA Banque SACA

	Rating	Outlook
Fitch	A+	Positive
Moody's	-	-
S&P	A+	Stable

Homepage

https://www.axa.fr

AXA Home Loan SFH is a subsidiary of the French AXA Banque SA (AXA Banque), which is headquartered in Fontenay-sous-Bois. The owners of AXA Home Loan SFH are AXA Banque SA (FY 2022: 99.99% of the shares) and AXA Banque Financement SA (0.01%). AXA Banque is the strategic banking entity of AXA France, which in turn is a wholly owned subsidiary of the insurance provider AXA Group. Within the AXA Group, AXA Home Loan SFH is the sole covered bond issuer. AXA Banque is 51% owned by AXA France Participations SAS, with a share of 49% held by AXA France Vie SA. Both entities are subsidiaries of the AXA Group. As a universal bank, AXA Banque operates with a distinct focus on retail customers. In 2022, AXA Banque employed approximately 600 staff, who served around 500,000 customers overall. In addition to the day-to-day banking business, the bank offers real estate and consumer loans, private banking and wealth management services, as well as savings and investment products, among others. As part of the AXA Group, insurance products are likewise offered to customers. AXA Banque does not have its own branches. Rather, it makes use of AXA's commercial network to sell its products. As at year-end 2022, AXA Banque's loan portfolio primarily consisted of real estate financing and Lombard loans. In contrast, consumer loans play a more minor role. In addition to customer deposits, AXA Banque's refinancing structure consists of unsecured bonds, group-internal liquidity and covered bonds, which are issued via AXA Home Loan SFH.

Balance Sheet (AXA Banque)

(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	11,499	11,599	10,970
Total Securities	1,792	1,385	1,860
Total Deposits	4,999	5,267	5,055
Tier 1 Common Capital	485	470	447
Total Assets	16,657	16,308	15,583
Total Risk-weighted Assets	4,504	4,365	4,258

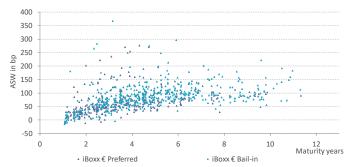
Income Statement (AXA Banque)

income statement (AXA banque)						
(EURm)	2020Y	2021Y	2022Y			
Net Interest Income	163	159	148			
Net Fee & Commission Inc.	17	10	-1			
Net Trading Income	-20	38	120			
Operating Expense	176	183	162			
Credit Commit. Impairment	-	-	-			
Dro tay Profit	-12	11	75			

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios (AXA Banque)

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.05	0.99	0.94	Liquidity Coverage Ratio	198.43	197.10	221.09
ROAE	-7.45	0.77	10.44	IFRS Tier 1 Leverage Ratio	2.99	2.93	3.04
Cost-to-Income	111.60	89.63	62.59	NPL/Loans at Amortised Cost	3.09	2.88	4.39
Core Tier 1 Ratio	10.77	10.77	10.50	Reserves/Loans at Amort. Cost	0.81	0.77	0.76

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 28.07.2023$

Strengths / Opportunities

- Strategically important part of the AXA Group
- Integration in the AXA Group
- Diversified product range

- Concentration risks (retail banking in France)
- Earning power
- Size of the bank



AXA Home Loan SFH – Mortgage

France | |



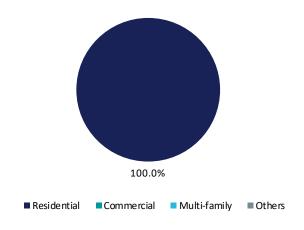
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

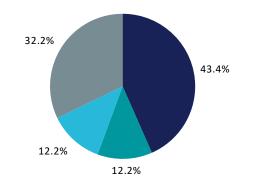
Cover Pool Data

Cover pool volume (EURm)	4,313	Rating (Moody's)	-
Amount outstanding (EURm)	3,750	Rating (S&P)	AAA
-thereof ≥ EUR 500m	73.3%	Rating (Fitch)	AAA
Current OC (nominal)	15.0%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% France	Collateral score	-
Main region	43% Ile-de-France	RRL	aa
Number of loans	29,348	JRL	aa
Number of borrowers	n/a	Unused notches	5
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	8.4%
WAL (cover pool)	8.9y	PCU	6
WAL (covered bonds)	6.0y	Recovery uplift	2
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	59.2%	LCR level (Bmk)	1
LTV (unindexed)	71.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

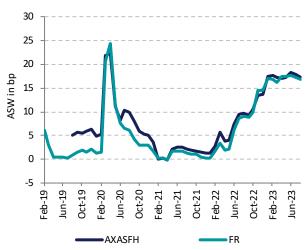
Regional Distribution



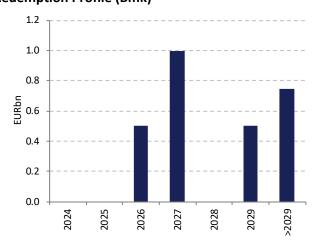


■ Ile-de-France ■ Occitanie ■ Provence-Alpes-Cote d'Azur ■ Others

Spread Development



Redemption Profile (Bmk)





Banque Federative du Credit Mutuel

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banque Federative du Credit Mutuel SA

	Rating	Outlook
Fitch	A+	Stable
Moody's*	Aa3	Stable
S&P	A+	Stable

Homepage

www.bfcm.creditmutuel.fr

As part of the Credit Mutuel Group, Banque Federative du Credit Mutuel SA (BFCM) constitutes the holding and funding unit for the units of the Credit Mutuel Alliance Federale (CMAF). The main shareholders of BFCM are Caisse Federale de Credit Mutuel (around 91.7%), which belongs to CMAF, in addition to 13 regional banks of Credit Mutuel (6.4%, FY 2022). BFCM also owns the CIC Group (Credit Industriel et Commercial), several specialist subsidiaries and various other financial institutions (e.g., Targobank), as well as the covered bond issuer Credit Mutuel Home Loan SFH. CMAF is the third-largest retail and commercial bank in France, offering its customers through a range of subsidiaries conventional financial services such as retail banking and insurance products, as well as asset management, private banking and special services in the areas of media and logistics. CMAF has around 6.0 million members in total. As at financial year 2022, CMAF employed around 77,450 staff, who serve more than 30 million customers in approximately 4,500 branches. In addition to other EU and non-EU countries, CMAF generated 77% of its net income in its domestic market of France, followed by Germany at 11% and the Benelux states at 5% (FY 2022). CMAF reports across the segments of Retail Banking (60% of net income as at FY 2022; excluding the Holding Segment), Insurance (18%), Specialized Business Lines (20%) and Other Business Lines (2%). Funding has been supplemented by green bonds since 2020 as well as social bonds since 2022.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	279,531	293,092	332,036
Total Securities	60,048	53,562	58,096
Total Deposits	268,802	274,257	283,698
Tier 1 Common Capital	-	-	-
Total Assets	627,244	662,868	689,563
Total Risk-weighted Assets	-	-	-

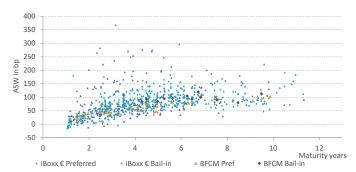
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	5,522	5,585	6,324
Net Fee & Commission Inc.	2,597	2,920	2,987
Net Trading Income	61	927	504
Operating Expense	6,279	6,328	6,861
Credit Commit. Impairment	1,750	644	808
Pre-tax Profit	2,229	4,113	3,870

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.19	1.10	1.17	Liquidity Coverage Ratio	-	-	-
ROAE	4.67	8.40	7.39	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	60.36	52.93	54.92	NPL/Loans at Amortised Cost	3.86	3.40	3.36
Core Tier 1 Ratio	-	-	-	Reserves/Loans at Amort. Cost	2.91	2.63	2.42

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Core member of the Group
- Risk profile
- Capitalisation

- Profitability (competitive FR market)
- Cost efficiency in comparison with European peers
- Diversification

^{*} Senior Unsecured/LT Bank Deposits



Credit Mutuel – CIC Home Loan SFH – Mortgage France

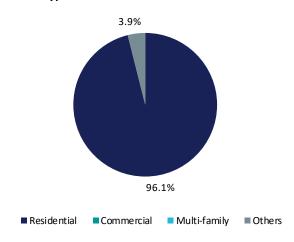


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

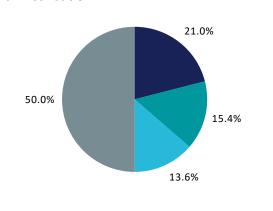
Cover Pool Data

41,634	Rating (Moody's)	Aaa
27,697	Rating (S&P)	AAA
83.9%	Rating (Fitch)	AAA
50.3%	Rating (DBRS)	-
8.1%	TPI	Probable-High
Mortgage	TPI leeway	5
100% France	Collateral score	5.0%
21% Ile-de-France	RRL	aa
385,430	JRL	aa
362,467	Unused notches	5
110,360	AAA credit risk (%)	7.7%
8.1y	PCU	4
4.3y	Recovery uplift	2
98.7%	Outstanding ESG BMKs	No
96.4%	LCR eligible	Yes
60.0%	LCR level (Bmk)	1
68.0%	Risk weight	10%
0.0%	Maturity structure (Bmk)	HB & SB
	27,697 83.9% 50.3% 8.1% Mortgage 100% France 21% Ile-de-France 385,430 362,467 110,360 8.1y 4.3y 98.7% 96.4% 60.0% 68.0%	27,697 Rating (S&P) 83.9% Rating (Fitch) 50.3% Rating (DBRS) 8.1% TPI Mortgage TPI leeway 100% France Collateral score 21% Ile-de-France RRL 385,430 JRL 362,467 Unused notches 110,360 AAA credit risk (%) 8.1y PCU 4.3y Recovery uplift 98.7% Outstanding ESG BMKs 96.4% LCR eligible 60.0% LCR level (Bmk) 68.0% Risk weight

Borrower Types

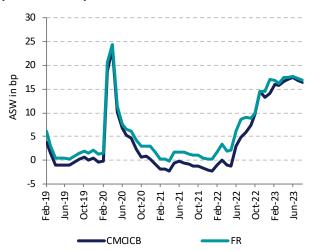


Regional Distribution

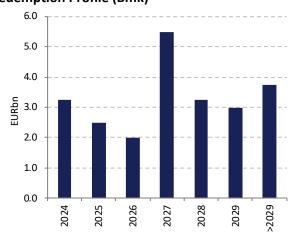


■ Ile-de-France ■ Auvergne-Rhone-Alpes ■ Grand-Est ■ Others

Spread Development



Redemption Profile (Bmk)





BNP Paribas

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

BNP Paribas SA

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	A+	Stable

Homepage

www.group.bnpparibas

With almost 190,000 staff located in 65 countries, of which 145,000 are based in Europe, BNP Paribas SA (BNP) is one of the largest banks in the world. The Financial Stability Board has classified it as a global systemically important bank (G-SIB; additional capital buffer: 1.5%). With a stake of 12.3% HSBC Holdings is the largest shareholder followed by Societe Federale de Participations et d'Investissement (SFPI) with 7.8%, which is wholly owned by the Belgian state (as at 18 July 2023). BNP reports across the following segments: Commercial, Personal Banking & Services (CBPS; 55% of pre-tax profit in FY 2022), Investment & Protection Services (IPS; 18%) and Corporate & Institutional Banking (CIB; 37%), as well as Other Activities (-11%). In geographical terms, the UK (17% of pre-tax profit), Belgium (14%), Italy (13%), the USA (12%), France (8%) and Germany (5%) are the most important markets as at FY 2022. The CIB segment covers the Global Banking, Markets and Securities business. The CBPS segment contains the Retail Banking business (both within and outside of the eurozone), in addition to Specialised Businesses, while the insurance, wealth management and asset management business is represented by IPS. According to information from the bank itself, BNP Paribas is a global market leader in the area of ESG bonds. For example, BNP has outstanding sustainable and green bonds totalling EUR 14.2bn and EUR 9.0bn as at 31 March 2023. The sale of Bank of the West (Commercial & Personal Banking Business in the USA) to BMO Financial, which was first announced on 20 December 2021, was concluded on 01 February 2023.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	822,839	867,610	854,272
Total Securities	834,558	844,548	969,254
Total Deposits	957,684	1,008,054	1,001,453
Tier 1 Common Capital	91,976	91,828	94,098
Total Assets	2,634,444	2,666,376	2,693,796
Total Risk-weighted Assets	713,671	744,851	694,407

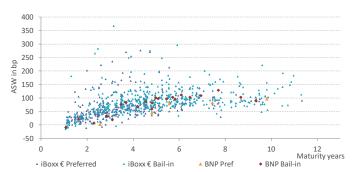
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	19,238	20,831	-
Net Fee & Commission Inc.	10,362	10,178	-
Net Trading Income	7,671	9,326	-
Operating Expense	29,304	31,335	-
Credit Commit. Impairment	2,959	2,959	-
Pro tay Profit	12 7//	12 627	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.89	0.93	-	Liquidity Coverage Ratio	136.32	132.25	132.54
ROAE	8.24	8.58	14.03	IFRS Tier 1 Leverage Ratio	3.87	3.93	3.90
Cost-to-Income	65.67	65.57	-	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	12.89	12.33	13.55	Reserves/Loans at Amort. Cost	2.39	2.09	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Earning power
- Capitalisation
- Asset quality

- Cost efficiency
- Dependency on wholesale funding
- Potentially volatile earning situation (capital market franchise)



BNP Home Loan SFH – Mortgage

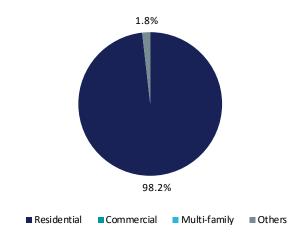
France | |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

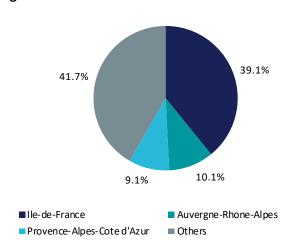
Cover Pool Data

Cover pool volume (EURm)	41,500	Rating (Moody's)	-
Amount outstanding (EURm)	32,841	Rating (S&P)	AAA
-thereof ≥ EUR 500m	13.4%	Rating (Fitch)	AAA
Current OC (nominal)	26.4%	Rating (DBRS)	-
Committed OC	8.1%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% France	Collateral score	-
Main region	39% Ile-de-France	RRL	aa
Number of loans	339,503	JRL	aa
Number of borrowers	n/a	Unused notches	5
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	2.7%
WAL (cover pool)	7.9y	PCU	3
WAL (covered bonds)	5.1y	Recovery uplift	2
Fixed interest (cover pool)	98.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	58.0%	LCR level (Bmk)	1
LTV (unindexed)	65.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

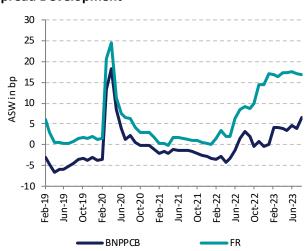
Borrower Types



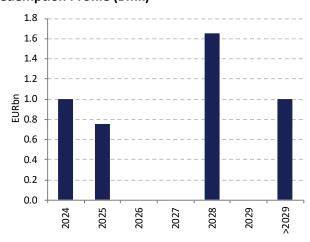
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Caisse de Refinancement de l'Habitat

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Caisse de Refinancement de l'Habitat SA

	Rating	Outloo
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.crh-bonds.com

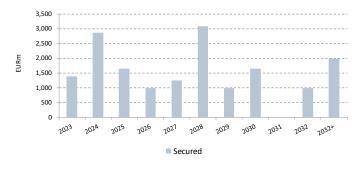
Caisse de Refinancement de l'Habitat (CRH) was established by the French government in 1985 in order to refinance residential mortgage loans for French financial institutions. Today, the non-profit financial institution CRH institution is a private company owned by French banks, which contribute equity on a pro rata basis and benefit from funding. As at 31 December 2022, the largest shareholders in CRH are the Credit Agricole Group (36.9%), Credit Mutuel (26.7%), Societe Generale (15.7%), BNP Paribas (7.6%) and BPCE (13.1%). CRH does not charge a margin for its refinancing activity. Its sole task is to issue bonds in accordance with French law (article 13 de la loi du 11 juillet 1985). CRH's cover pool consists of secured mortgage SSDs issued by participating banks. Covered bonds are issued under identical conditions (term to maturity, interest rate and currency) to match the mortgage SSDs. In accordance with the legal framework, CRH owns the cover pool. As such, in the event of a bank default, the pledged cover assets pass directly to CRH, which can then sell the portfolio in order to buy back the underlying bonds The assets are solely French property loans, which are backed by first mortgages or the guarantees from credit institutions and insurance policies. In addition to the legal requirements, the loans must comply with CRH's far more stringent conditions. CRH is subject to supervision by the ECB on account of its extensive balance sheet total. Since 01 January 2022, CRH has also been subject to supervision by the Prudential Supervision and Resolution Authority (Autorite de controle prudentiel et de resolution; ACPR), which is the French financial regulatory body.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	-	-	-
Total Securities	24,948	21,095	16,318
Total Deposits	-	-	-
Tier 1 Common Capital	555	554	592
Total Assets	25,352	21,469	16,793
Total Rick-weighted Accets	2 997	2 594	2 1/10

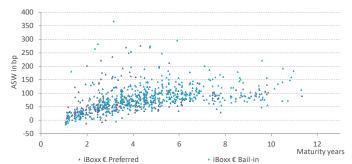
Income Statement (FURm) 2020Y

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	-8	2	-1
Net Fee & Commission Inc.	-0	-0	-0
Net Trading Income	-	-	-
Operating Expense	10	10	11
Credit Commit. Impairment	-	-	-
Pre-tax Profit	3	3	5

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	-0.03	0.01	-0.00	Liquidity Coverage Ratio	-	-	-
ROAE	0.01	0.01	0.20	IFRS Tier 1 Leverage Ratio	2.19	2.58	3.53
Cost-to-Income	76.17	77.87	70.84	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	18.52	21.35	27.67	Reserves/Loans at Amort. Cost	_	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Membership association
- Asset quality

- Monoline activity (mortgage financing)
- Nominal debt level

NORD/LB

CRH - Mortgage

France | |

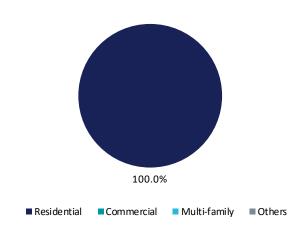


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

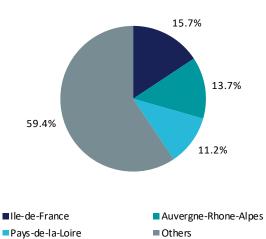
Cover Pool Data

Cover pool volume (EURm)	22,316	Rating (Moody's)	Aaa
Amount outstanding (EURm)	15,876	Rating (S&P)	-
-thereof ≥ EUR 500m	94.5%	Rating (Fitch)	AAA
Current OC (nominal)	40.6%	Rating (DBRS)	-
Committed OC	25.0%	TPI	n/a
Cover type	Mortgage	TPI leeway	n/a
Main country	100% France	Collateral score	n/a
Main region	16% Ile-de-France	RRL	-
Number of loans	421,945	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	6.1y	PCU	1
WAL (covered bonds)	4.4y	Recovery uplift	2
Fixed interest (cover pool)	97.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	34.2%	LCR level (Bmk)	1
LTV (unindexed)	42.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

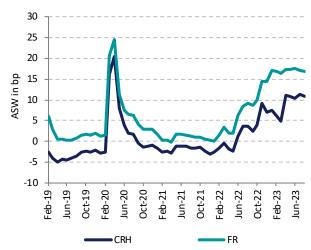
Borrower Types



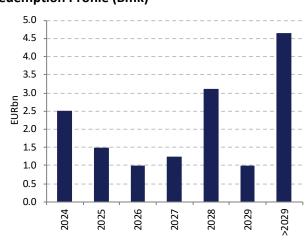
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Caisse Française de Financement Local

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Caisse Française de Financement Local

	Rating	Outloo
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.caissefrancaisedefinancementlocal.fr Caisse Française de Financement Local (CAFFIL) was formed in 2013 following the purchase of Dexia Municipal Agency (Dexia MA) by the newly established public sector credit institute Societe de Financement Local (SFIL; banking licence since Q1 2013). In the wake of this, Dexia MA was renamed as CAFFIL and operates today as an accredited Societe de Credit Foncier (SCF). Since September 2020, SFIL has been practically wholly owned (99.99%) by Caisse des Depots. The French government continues to hold a single share and has the right to elect a board member of SFIL without voting rights. CAFFIL remains a wholly owned subsidiary of SFIL. For example, CAFFIL is responsible for the refinancing of La Banque Postale loans to public institutions by issuing covered bonds (Obligations Foncieres). Since November 2022, loans from the Banque des Territoires to public institutions are also refinanced via covered bond deals. In order to fulfil this role, SFIL has provided both a statement of support and a declaration that it will provide funding. According to information from CAFFIL itself, it is one of the leading issuers of covered bonds backed by a public cover pool in Europe. CAFFIL issues EUR 4-6bn in covered bonds every year. Loans to public institutions make up the largest share of the cover pool (73.1% as at FY 2022), while loans guaranteed by the French state and for public hospitals account for shares of 11.5% and 10.5%, respectively. Since 2019, funding has also been supplemented by bonds in ESG format (green and social bonds). For example, as at the end of December 2022, the total volume of outstanding ESG bonds amounts to EUR 4.75bn.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	50,366	49,522	47,152
Total Securities	16,430	12,549	7,393
Total Deposits	-	-	-
Tier 1 Common Capital	-	-	-
Total Assets	72,461	71,154	63,223
Total Risk-weighted Assets	4,672	3,777	3,370

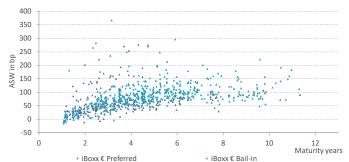
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	126	152	166
Net Fee & Commission Inc.	16	1	-3
Net Trading Income	20	54	30
Operating Expense	104	104	110
Credit Commit. Impairment	-9	-4	-5
Pre-tax Profit	59	102	130

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.18	0.21	0.25	Liquidity Coverage Ratio	176.00	771.00	100.00
ROAE	2.98	3.94	6.53	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	64.20	50.73	56.99	NPL/Loans at Amortised Cost	0.98	0.57	0.44
Core Tier 1 Ratio	-	-	-	Reserves/Loans at Amort. Cost	0.06	0.05	0.04

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Indirectly owned by the government
- Strategic unit within the Group structure

- Profitability
- Leverage

NORD/LB

CAFFIL - Public Sector

France | |



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

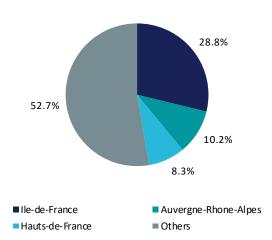
Cover pool volume (EURm)	61,678	Rating (Moody's)	Aaa
Amount outstanding (EURm)	53,541	Rating (S&P)	AA+
-thereof ≥ EUR 500m	75.3%	Rating (Fitch)	-
Current OC (nominal)	15.2%	Rating (DBRS)	AAA
Committed OC	5.0%	TPI	Probable-High
Cover type	Public Sector	TPI leeway	4
Main country	92% France	Collateral score	7.5%
Main region	29% Ile-de-France	RRL	aa
Number of loans	40,112	JRL	aa
Number of borrowers	12,461	Unused notches	0
Avg. exposure to borrowers (EUR)	4,919,025	AAA credit risk (%)	-
WAL (cover pool)	6.7y	PCU	-
WAL (covered bonds)	6.9y	Recovery uplift	-
Fixed interest (cover pool)	71.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	94.8%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.2%	Maturity structure (Bmk)	НВ

Borrower Types

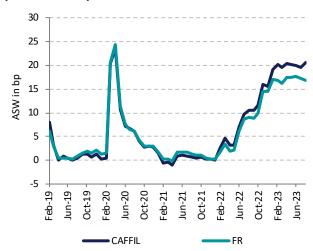
13.4% 17.5% 20.1% 49.0%



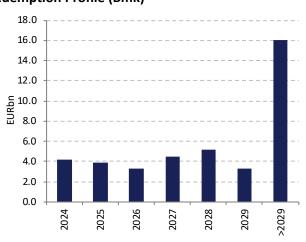
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Compagnie de Financement Foncier

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Cie de Financement Foncier SA

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.foncier.fr

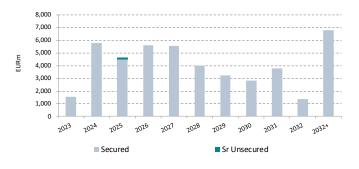
The financial institution Compagnie de Financement Foncier (CFF) was established in 1999 by Credit Foncier de France (CF) in order to take account of the altered legislative framework for covered bond issuers. The roots of the parent group (100%) can be traced back to 1852, when CF was established by the French government. Today, CFF is an indirect wholly owned subsidiary of BPCE SA (France's second-largest banking group) via CF. Since 2019, its main task has been to refinance the BPCE Group, with loans to public institutions and other similar loans playing a particularly key role in this regard. As an accredited Societe de Credit Foncier, CFF issues covered bonds (Obligations Foncieres) to refinance BPCE, among other aspects. A distinct geographical focus can be determined by looking at the assets (FY 2022: 88% located in France). Thereafter follows the rest of the European Union at 7%. In terms of the type of assets, the focus is on mortgage loans at around 46%, with public sector exposures accounting for a share of 45% (FY 2022). In financial year 2022, the total volume of outstanding covered bonds (Obligations Foncieres) stood at EUR 51.6bn, with new covered bonds amounting to EUR 4.6bn issued in 2022 as well. In this regard, CFF is today one of the largest covered bond issuers in France. In addition to the EUR, covered bonds are placed in USD, CHF, GBP and NOK, although EUR-denominated covered bonds account for a share of more than 96% of the outstanding volume of covered bonds. Since July 8, 2022, Compagnie de Financement Foncier's new preference issuances benefit from the "European Covered Bond Premium" label.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	35,339	33,777	34,702
Total Securities	6,417	6,139	5,875
Total Deposits	-	-	-
Tier 1 Common Capital	3,107	3,107	1,974
Total Assets	68,455	63,935	60,459
Total Risk-weighted Assets	12,244	11,425	7,748

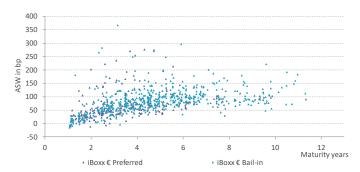
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	117	223	228
Net Fee & Commission Inc.	34	30	22
Net Trading Income	20	-0	0
Operating Expense	93	103	85
Credit Commit. Impairment	-4	-7	-7
Pro-tay Profit	72	156	168

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.17	0.34	0.37	Liquidity Coverage Ratio	_	-	-
ROAE	1.48	3.33	4.52	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	55.77	40.92	34.48	NPL/Loans at Amortised Cost	3.61	3.79	1.86
Core Tier 1 Ratio	25.38	27.19	25.48	Reserves/Loans at Amort. Cost	0.17	0.15	0.11

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Integration in the banking group
- Positioning in FR (covered bond market)

- Concentrated credit risk in the retail business
- Competition in the mortgage financial segment in FR

NORD/LB

CFF – Mortgage

France II



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

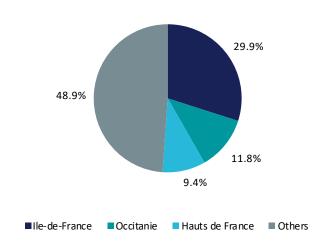
Cover Pool Data

Cover pool volume (EURm)	57,266	Rating (Moody's)	Aaa
Amount outstanding (EURm)	52,356	Rating (S&P)	AAA
-thereof ≥ EUR 500m	64.6%	Rating (Fitch)	-
Current OC (nominal)	9.4%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	98% France	Collateral score	10.6%
Main region	30% Ile-de-France	RRL	aa-
Number of loans	343,964	JRL	aa
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	7.9y	PCU	-
WAL (covered bonds)	7.1y	Recovery uplift	-
Fixed interest (cover pool)	94.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	93.6%	LCR eligible	Yes
LTV (indexed)	62.9%	LCR level (Bmk)	1
LTV (unindexed)	73.3%	Risk weight	10%
Loans in arrears	0.8%	Maturity structure (Bmk)	НВ

Borrower Types

10.4% 43.9% 44.8% 0.9% ■ Multi-family ■ Residential Commercial ■ Public sector Others

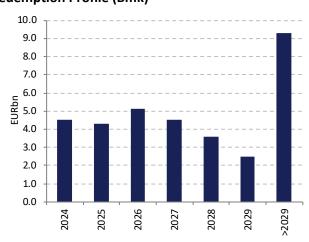
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Credit Agricole Group

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Credit Agricole

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	A+	Stable

Homepage

www.credit-agricole.com

Credit Agricole SA (CASA) boasts a cooperative tradition and retains strong links to agriculture. Today, a total of 39 regional banks holds 56.8% of the shares in CASA via the holding company SAS Rue La Boetie (as at FY 2022). The Credit Agricole Group comprises CASA, the regional banks and the local banks, plus their subsidiaries. In France, the bank has a market share of 25% for retail and corporate deposits (H1 2022) and 32% for mortgage loans. Moreover, it ranks among the group of global systemically important banks (G-SIBs) in France. Around the world, it offers 53 million customers all the products of a universal bank in more than 8,700 branches (FY 2022). The business areas of CASA are divided into the following operating units: Retail Banking, Asset Gathering, Large Customers, Specialised Financial Services and Corporate Centre. As at Q1 2023, Asset Gathering contributed the greatest share (45%) to net income (excluding Corporate Centre). Around the world, the Credit Agricole Group is active in 46 countries across the regions of Europe, Africa, the Middle East, Asia, Oceania as well as North and South America. The majority of sales is attributable to the domestic market, France, at around 52% (FY 2022), followed by Italy (17%), the rest of Europe (20%) and North America (5%). CASA is a member of the Net-Zero Banking Alliance and is aligned with the aim of limiting the rise in global temperatures to 1.5°C. In this context, CASA is active in the field of ESG bonds. As at 31 December 2022, a total of six social bonds and a single social covered bond in the amount of EUR 3.2bn and EUR 1.0bn respectively are in circulation. Moreover, green bonds amounting to EUR 8.7bn are outstanding, of which EUR 2.0bn is in the form of green covered bonds.

Income Statement

Operating Expense

Pre-tax Profit

Credit Commit. Impairment

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	1,055,354	1,118,690	1,116,278
Total Securities	829,314	801,814	-
Total Deposits	1,060,325	1,111,227	1,059,000
Tier 1 Common Capital	102,693	100,861	102,940
Total Assets	2,323,557	2,379,120	2,415,000
Total Risk-weighted Assets	585,441	574,595	584,280

(EURm) 2021Y 2022Y 2023Q1 Net Interest Income 19,783 20,909 Net Fee & Commission Inc. 10,750 10,945 Net Trading Income 13,710 -11,715

23,320

1,866

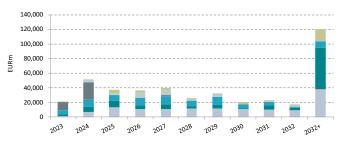
12,410

24,365

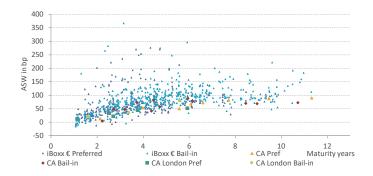
2,946

11,264

Senior Unsecured Bonds (EUR BMK)







Company Ratios

Redemption Profile

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.90	0.92	-	Liquidity Coverage Ratio	170.93	166.77	162.03
ROAE	7.69	6.64	-	IFRS Tier 1 Leverage Ratio	4.68	4.60	-
Cost-to-Income	62.68	63.10	-	NPL/Loans at Amortised Cost	2.06	2.15	2.15
Core Tier 1 Ratio	17.54	17.55	17.62	Reserves/Loans at Amort. Cost	1.77	1.75	1.76

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in France (retail banking)
- Diversified business model
- Capitalisation

- Dependency on capital market funding
- Margin pressure
- Economic environment



Credit Agricole Home Loan SFH – Mortgage

France II

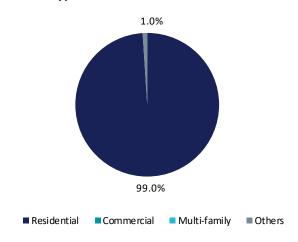


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

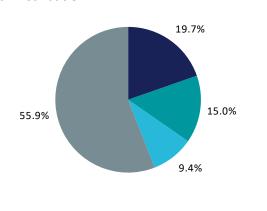
Cover Pool Data

54,528	Rating (Moody's)	Aaa
35,358	Rating (S&P)	AAA
95.1%	Rating (Fitch)	AAA
54.2%	Rating (DBRS)	-
8.1%	TPI	Probable-High
Mortgage	TPI leeway	5
100% France	Collateral score	5.0%
20% Île-de-France	RRL	aa
847,340	JRL	aa
668,387	Unused notches	5
80,749	AAA credit risk (%)	7.4%
7.4y	PCU	6
5.6y	Recovery uplift	2
95.9%	Outstanding ESG BMKs	Yes
100.0%	LCR eligible	Yes
51.0%	LCR level (Bmk)	1
60.7%	Risk weight	10%
0.0%	Maturity structure (Bmk)	SB
	35,358 95.1% 54.2% 8.1% Mortgage 100% France 20% Île-de-France 847,340 668,387 80,749 7.4y 5.6y 95.9% 100.0% 51.0% 60.7%	35,358 Rating (S&P) 95.1% Rating (Fitch) 54.2% Rating (DBRS) 8.1% TPI Mortgage TPI leeway 100% France Collateral score 20% Île-de-France RRL 847,340 JRL 668,387 Unused notches 80,749 AAA credit risk (%) 7.4y PCU 5.6y Recovery uplift 95.9% Outstanding ESG BMKs 100.0% LCR eligible 51.0% LCR level (Bmk) 60.7% Risk weight

Borrower Types

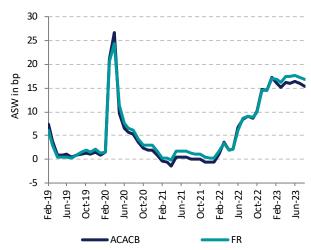


Regional Distribution

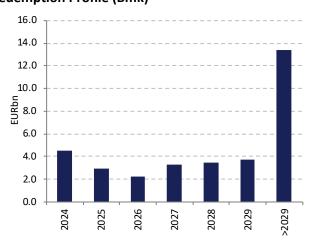


■Île-de-France ■ Auvergne-Rhone-Alpes ■ Occitanie ■ Others

Spread Development



Redemption Profile (Bmk)





Credit Agricole Public Sector SCF – Public Sector

France



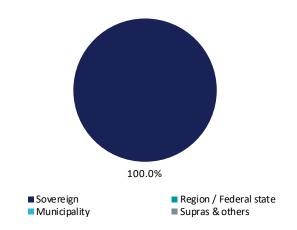
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

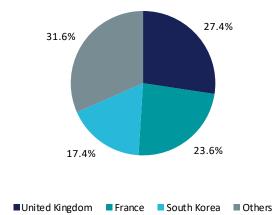
Cover Pool Data

Cover pool volume (EURm)	7,110	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,500	Rating (S&P)	AAA
-thereof ≥ EUR 500m	88.9%	Rating (Fitch)	-
Current OC (nominal)	58.0%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable-High
Cover type	Public Sector	TPI leeway	5
Main country	27% United Kingdom	Collateral score	13.6%
Main region	n/a	RRL	aa
Number of loans	133	JRL	aa
Number of borrowers	65	Unused notches	5
Avg. exposure to borrowers (EUR)	93,583,607	AAA credit risk (%)	-
WAL (cover pool)	3.8y	PCU	-
WAL (covered bonds)	4.1y	Recovery uplift	-
Fixed interest (cover pool)	39.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

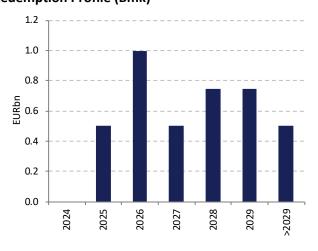




Spread Development

ASW in bp 25 20 4 19 - 0 10 20 2 15 20 0 15 20 0 2 15 20 0 2 15 20 0 2 15 20 0 2 15 20 0 2 15 20

Redemption Profile (Bmk)





Credit Mutuel Arkea

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Credit Mutuel Arkea SA

	Rating	Outlook
Fitch	A-	Watch Pos.
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.cm-arkea.com

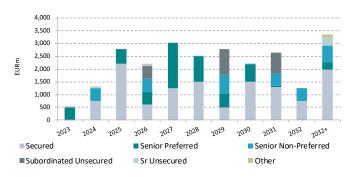
The Credit Mutuel Arkea Group (Arkea) is a cooperative bank and insurance company in France. Arkea serves around 5.1 million customers, of which roughly 1.5 million are members of the Group, and had a balance sheet total of EUR 189.1bn as at the end of 2022. Arkea includes the two legally independent regional associations Credit Mutuel de Bretagne and Credit Mutuel du Sud-Ouest, in addition to 40 specialist subsidiaries. A solidarity mechanism exists within the Credit Mutuel Group (CMG), which makes compensation payments to loss-making member institutes via a solidarity fund and a reserve fund. The universal bank has more than 11,000 employees and is represented by around 400 local branches throughout the country, maintaining a strong regional presence in Brittany and the west of France in particular. The France-based business activities include retail banking, corporate banking, wealth management and insurance products, in addition to B2B activities. Arkea sold Keytrade Luxembourg in April 2022, in addition to Leetchi SA Mangopay and Budget Insight in July 2022. The strategic plan referred to as "Transitions 2024" adopted in January 2021 focuses on modernising the business model, primarily with regard to improving the sustainability of Credit Mutuel Arkea's own products and services. In the social bonds segment, Credit Mutuel Arkea issued two additional social bonds totalling EUR 1.75bn overall, following an inaugural deal in 2019 (FY 2022). Moreover, three green bonds with a total volume of EUR 587m have been issued since 2020 (FY 2022). As at FY 2022, wholesale funding amounted to EUR 26.1bn, of which 29% is attributable to covered bonds.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	67,263	73,264	81,189
Total Securities	16,090	12,573	10,919
Total Deposits	68,366	74,598	81,230
Tier 1 Common Capital	6,744	7,308	7,508
Total Assets	169,376	178,718	189,133
Total Risk-weighted Assets	40,039	43,077	44,545

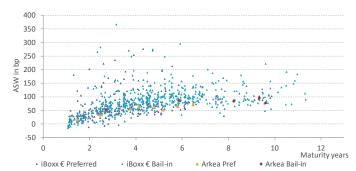
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	651	725	839
Net Fee & Commission Inc.	490	520	558
Net Trading Income	15	273	198
Operating Expense	1,574	1,701	1,811
Credit Commit. Impairment	159	118	141
Pre-tay Profit	103	717	673

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.63	0.64	0.69	Liquidity Coverage Ratio	148.93	163.31	157.12
ROAE	4.72	7.11	6.43	IFRS Tier 1 Leverage Ratio	4.06	4.14	4.06
Cost-to-Income	76.02	67.11	68.17	NPL/Loans at Amortised Cost	2.14	1.98	1.83
Core Tier 1 Ratio	16.84	16.96	16.85	Reserves/Loans at Amort. Cost	1.65	1.51	1.44

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Risk profile
- Funding structure
- Capitalisation

- Profitability
- Risks from inflation
- Cost efficiency



Credit Mutuel Arkea SFH – Mortgage

France

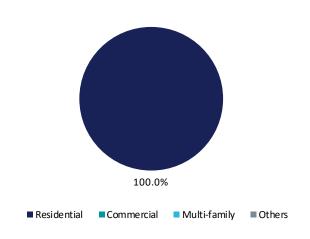


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

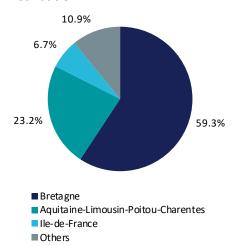
Cover Pool Data

Cover pool volume (EURm)	13,166	Rating (Moody's)	Aaa
Amount outstanding (EURm)	10,433	Rating (S&P)	-
-thereof ≥ EUR 500m	64.7%	Rating (Fitch)	AAA
Current OC (nominal)	26.2%	Rating (DBRS)	-
Committed OC	11.2%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% France	Collateral score	5.1%
Main region	59% Bretagne	RRL	-
Number of loans	227,007	JRL	-
Number of borrowers	135,972	Unused notches	-
Avg. exposure to borrowers (EUR)	96,826	AAA credit risk (%)	-
WAL (cover pool)	6.9y	PCU	4
WAL (covered bonds)	4.9y	Recovery uplift	2
Fixed interest (cover pool)	99.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	52.8%	LCR level (Bmk)	1
LTV (unindexed)	69.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

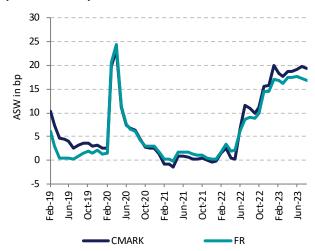
Borrower Types



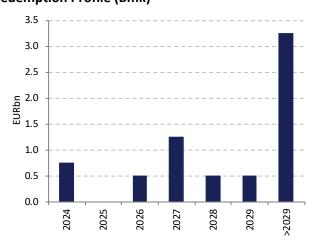
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Credit Mutuel Arkea SCF - Public Sector

France

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

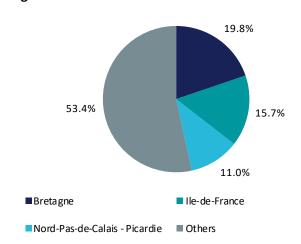
Cover Pool Data

Cover pool volume (EURm)	3,234	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,587	Rating (S&P)	-
-thereof ≥ EUR 500m	67.6%	Rating (Fitch)	-
Current OC (nominal)	25.0%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Public Sector	TPI leeway	5
Main country	100% France	Collateral score	9.7%
Main region	20% Bretagne	RRL	-
Number of loans	1,167	JRL	-
Number of borrowers	767	Unused notches	-
Avg. exposure to borrowers (EUR)	4,216,675	AAA credit risk (%)	-
WAL (cover pool)	8.2y	PCU	-
WAL (covered bonds)	8.0y	Recovery uplift	-
Fixed interest (cover pool)	60.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

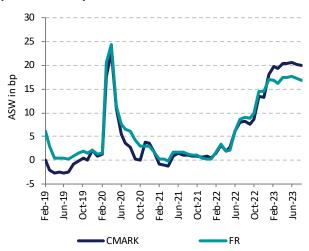
Borrower Types

29.3% 42.8% Sovereign Municipality Region / Federal state Supras & others

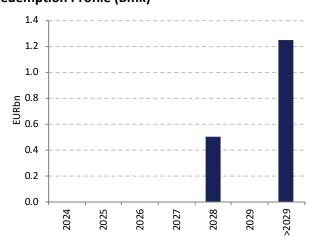
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Groupe BPCE

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings BPCE SA

	Rating	Outlook
Fitch	A+	Negative
Moody's*	A1	Stable
S&P	Α	Stable

Homepage

www.groupebpce.com

*Senior Unsecured/LT Bank Deposits Groupe BPCE is the second largest cooperative banking group in France with total assets of EUR 1.5tn. (Q1/2023), Groupe BPCE is the second largest cooperative banking group in France and is classified as a globally systemically important institution (additional capital buffer: 1%). Operationally, the focus is on retail and insurance business. The distribution network consists of Banque Populaires (about 2,900 branches), Caisse d'Epargne (about 2,700 branches) as well as Banque Palatine (26 branches) and Oney Bank (online bank). With Natixis, it is also globally active in corporate and investment banking as well as asset and wealth management. The group serves about 35 million customers in more than 40 countries. Its market share in France for customer deposits and loans was 22% each at the end of 2022. The shares in BPCE SA, which is also the central bank within the French Groupe BPCE, are held 50% each by the 15 Caisses d'Epargne and the 14 Banques Populaires. Within the group, BPCE SA is responsible for strategy, coordination and management, as well as liquidity management and capitalisation. The group has a solidarity mechanism that provides banks with capital in an emergency. In 2021, it joined the Net Zero Banking Alliance, but even before that, it was already pursuing green climate goals. This is reflected in the loan portfolio, which is regularly refinanced through ESG bond issues. As of the end of March 2023, the outstanding volume of ESG bonds amounted to EUR 10.8bn and three new issues from this segment are planned each year according to the 2021-2024 strategic plan. Covered bonds are issued via the wholly owned subsidiary BPCE SFH, among others.

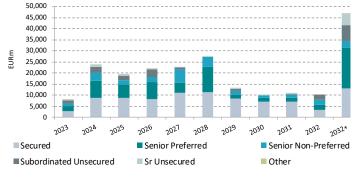
Income Statement

Balance Sheet 2021Y 2022Y (EURm) 2023Q1 **Net Loans to Customers** 844,784 898,743 198,750 **Total Securities** 221,373 702,130 **Total Deposits** 665,389 694,054 69,500 Tier 1 Common Capital 69,764 69,665 **Total Assets** 1,516,021 1,531,134 1,503,813 Total Risk-weighted Assets 441,428 460,858 463,000

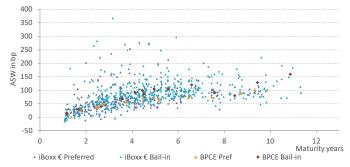
(EURm) 2021Y 2022Y 2023Q1 Net Interest Income 9,879 9,698 Net Fee & Commission Inc. 10,324 10,045

	- /	- ,	
Net Fee & Commission Inc.	10,324	10,045	-
Net Trading Income	2,447	2,882	-
Operating Expense	17,840	18,077	-
Credit Commit. Impairment	1,734	1,953	-
Pre-tay Profit	6 231	5 748	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.75	0.72	-	Liquidity Coverage Ratio	160.43	141.71	153.00
ROAE	5.45	4.97	2.61	IFRS Tier 1 Leverage Ratio	4.79	4.77	-
Cost-to-Income	69.00	70.11	-	NPL/Loans at Amortised Cost	2.62	2.46	2.45
Core Tier 1 Ratio	15.80	15.12	15.01	Reserves/Loans at Amort. Cost	1.73	1.69	1.65

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in FR
- Capitalisation
- Solidarity mechanism within the group

- Asset quality
- Cyclical business (Natixis)
- Profitability



BPCE SFH – Mortgage

France | |

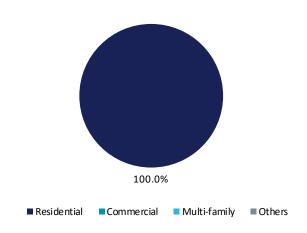


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

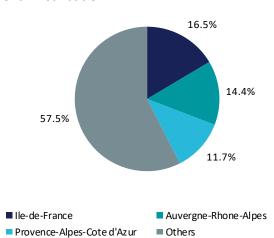
Cover Pool Data

Cover pool volume (EURm)	57,266	Rating (Moody's)	Aaa
Amount outstanding (EURm)	41,864	Rating (S&P)	AAA
-thereof ≥ EUR 500m	93.5%	Rating (Fitch)	-
Current OC (nominal)	36.8%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% France	Collateral score	5.0%
Main region	16% Ile-de-France	RRL	aa-
Number of loans	707,027	JRL	aa
Number of borrowers	632,084	Unused notches	4
Avg. exposure to borrowers (EUR)	90,598	AAA credit risk (%)	3.9%
WAL (cover pool)	7.7y	PCU	-
WAL (covered bonds)	3.0y	Recovery uplift	-
Fixed interest (cover pool)	99.7%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.8%	LCR eligible	Yes
LTV (indexed)	59.4%	LCR level (Bmk)	1
LTV (unindexed)	70.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

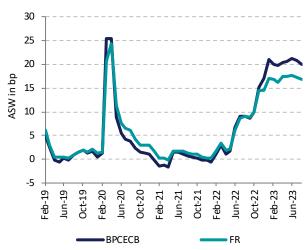
Borrower Types



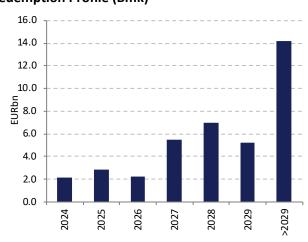
Regional Distribution



Spread Development



Redemption Profile (Bmk)





HSBC Continental Europe

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

HSBC Continental Europe SA

	Rating	Outlook
Fitch	AA-	Stable
Moody's*	A1	Stable
S&P	A+	Stable

Homepage

www.hsbc.fr

HSBC Continental Europe (HBCE, formerly HSBC France), headquartered in Paris, is 99.99% owned by HSBC Bank Plc, which in turn is a wholly owned subsidiary of HSBC Holdings Plc (HSBCH) and is therefore part of one of the world's largest banking groups. HBCE divides its operating business into the following segments: Wealth and Personal Banking, Commercial Banking, Markets and Securities Services, Global Banking, Global Banking and Markets Other, as well as Corporate Centre. In February 2020, HSBCH published a comprehensive strategic plan, outlining its ambition to restructure underperforming business segments in the USA, Europe and the UK, in addition to carrying out capital restructurings in Asia. Part of this strategy includes the withdrawal of HBCE from the French retail banking sector in order to focus on wholesale banking clients. For example, a takeover agreement was reached with the My Money Group (MMG) to acquire HBCE's retail business in 2021. The transaction encompasses customer loans and deposits totalling EUR 22bn and EUR 21bn (FY 2022) respectively. In addition, the covered bond programme of the wholly owned subsidiary HSBC SFH (France) is also to be transferred to MMG. However, owing to interest rate rises, MMG is experiencing difficulties in completing the transaction in line with the originally agreed terms. If a sale is to be concluded, this is only likely to happen in the second half of 2023 at the earliest. The acquisitions of HSBC Trinkaus & Burkhardt GmbH in addition to a 70% stake in HSBC Bank Malta were completed in 2022. The HSBC Group is striving to align its carbon footprint with the aims of the Paris Climate Agreement.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	56,439	60,110	43,241
Total Securities	121,525	101,729	119,322
Total Deposits	61,483	70,231	84,001
Tier 1 Common Capital	5,798	5,742	8,980
Total Assets	237,099	222,664	279,684
Total Risk-weighted Assets	46.113	47.795	58.561

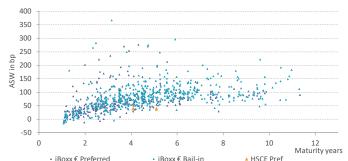
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	1,053	759	1,060
Net Fee & Commission Inc.	858	720	752
Net Trading Income	330	1,295	-1,054
Operating Expense	2,068	1,542	1,354
Credit Commit. Impairment	287	42	123
Pro-tay Profit	-945	175	21/

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.49	0.36	0.48	Liquidity Coverage Ratio	142.67	145.14	150.81
ROAE	-12.87	3.54	-9.68	IFRS Tier 1 Leverage Ratio	3.21	3.09	4.03
Cost-to-Income	97.50	82.68	61.91	NPL/Loans at Amortised Cost	2.40	2.17	4.03
Core Tier 1 Ratio	12.57	12.01	15.33	Reserves/Loans at Amort, Cost	1.44	1.32	1.92

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Key location of the Group in the eurozone

- Profitability
- Dependency on wholesale funding

^{*}Senior Unsecured/LT Bank Deposits



HSBC SFH France - Mortgage

France | |

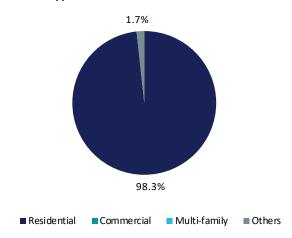


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

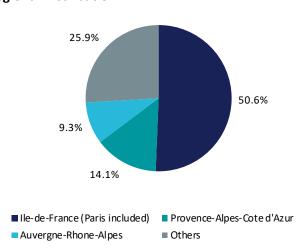
Cover Pool Data

6,308	Rating (Moody's)	Aaa
4,750	Rating (S&P)	AAA
73.7%	Rating (Fitch)	-
32.8%	Rating (DBRS)	-
11.1%	TPI	Probable-High
Mortgage	TPI leeway	4
100% France	Collateral score	5.0%
ce (Paris included)	RRL	N/A
46,236	JRL	N/A
35,836	Unused notches	N/A
173,004	AAA credit risk (%)	2.6%
6.6y	PCU	-
3.4y	Recovery uplift	-
0.0%	Outstanding ESG BMKs	No
100.0%	LCR eligible	Yes
48.5%	LCR level (Bmk)	1
56.6%	Risk weight	10%
0.0%	Maturity structure (Bmk)	HB & SB
	4,750 73.7% 32.8% 11.1% Mortgage 100% France te (Paris included) 46,236 35,836 173,004 6.6y 3.4y 0.0% 100.0% 48.5% 56.6%	4,750 Rating (S&P) 73.7% Rating (Fitch) 32.8% Rating (DBRS) 11.1% TPI Mortgage TPI leeway 100% France Collateral score te (Paris included) RRL 46,236 JRL 35,836 Unused notches 173,004 AAA credit risk (%) 6.6y PCU 3.4y Recovery uplift 0.0% Outstanding ESG BMKs 100.0% LCR eligible 48.5% LCR level (Bmk) 56.6% Risk weight

Borrower Types



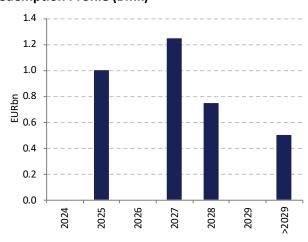
Regional Distribution



Spread Development



Redemption Profile (Bmk)





La Banque Postale

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

La Banque Postale SA

	Rating	Outlook
Fitch	Α	Stable
Moody's	A2	Stable
S&P	A+	Negative

Homepage

www.labanquepostale.com

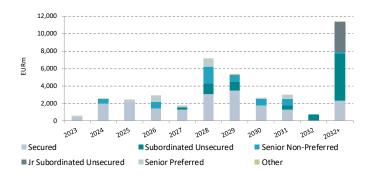
La Banque Postale (LBP), which is headquartered in Paris, was established at the end of 2005 and is a wholly owned subsidiary of Le Groupe La Poste, which in turn is 66% owned by Caisse des Depots and 34% owned by the French state. LBP is active in the fields of banking, life and non-life insurance, corporate and investment banking as well as asset and wealth management. In geographical terms, the bank is active in 19 countries, including its main market of France. At present, LBP boasts around 20 million clients. LBP organises its business activities via a large number of subsidiaries and participations, which are allocated to the four core business areas, namely Bancassurance France (FY 2022: 64% of net income), International Bancassurance (19%), Corporate and Investment Banking (11%) and Wealth and Asset Management (6%). As at the end of H1 2022, LBP acquired the remaining shares in CNP Assurance, before subsequently delisting the company on 20 June 2022. As a result, LBP expanded its activities in the French and international insurance business. In May 2022, LBP sold its 40% stake in AEW Europe, while LBP Asset Management also sold its 45% interest in Ostrum Asset Management to Natixis Investment Managers in each case. LBP is a founding member of the Net-Zero Banking Alliance. In this regard, the bank is seeking to operate its entire banking business on a climate-neutral basis by 2040. To this end, La Banque Postale Home Loan SFH (covered bond vehicle) issued a green covered bond in the amount of EUR 750m in May 2022, among other measures. In addition, a social covered bond worth EUR 1.25bn was issued in January 2023 (Q1 2023).

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	134,546	130,959	136,534
Total Securities	442,941	476,811	439,720
Total Deposits	230,393	235,038	233,363
Tier 1 Common Capital	17,461	17,367	13,608
Total Assets	737,176	772,310	745,644
Total Risk-weighted Assets	85,532	91,098	92,775

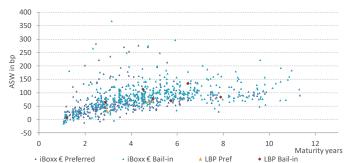
Income Statement

moonic otatoment			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	2,586	3,946	5,464
Net Fee & Commission Inc.	-778	-1,243	-1,436
Net Trading Income	3,826	11,352	-13,625
Operating Expense	5,711	6,215	6,406
Credit Commit. Impairment	592	219	225
Pre-tax Profit	5 107	1 636	1 777

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.69	0.79	1.14	Liquidity Coverage Ratio	179.00	203.96	165.63
ROAE	21.20	3.50	4.90	IFRS Tier 1 Leverage Ratio	2.40	2.27	1.86
Cost-to-Income	82.60	76.54	76.48	NPL/Loans at Amortised Cost	1.29	1.32	1.61
Core Tier 1 Ratio	20.42	19.06	14.67	Reserves/Loans at Amort. Cost	0.96	1.08	1.11

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Likelihood of support from parent company
- Domestic market position
- Liquidity profile

- Rising costs of "regulated savings" (Livret A)
- Cost efficiency
- Capitalisation (risk-adjusted capital ratio)



La Banque Postale Home Loan SFH – Mortgage

France

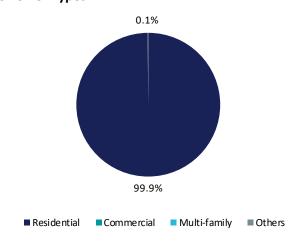


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

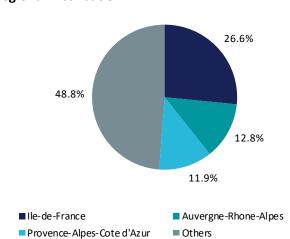
Cover Pool Data

Cover pool volume (EURm)	26,639	Rating (Moody's)	-
Amount outstanding (EURm)	20,216	Rating (S&P)	AAA
-thereof ≥ EUR 500m	50.2%	Rating (Fitch)	-
Current OC (nominal)	31.8%	Rating (DBRS)	-
Committed OC	8.1%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% France	Collateral score	-
Main region	27% Ile-de-France	RRL	aa
Number of loans	318,008	JRL	aa
Number of borrowers	n/a	Unused notches	5
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.0%
WAL (cover pool)	8.1y	PCU	-
WAL (covered bonds)	5.9y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	55.4%	LCR level (Bmk)	1
LTV (unindexed)	67.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

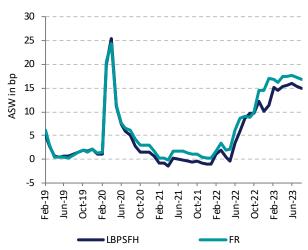
Borrower Types



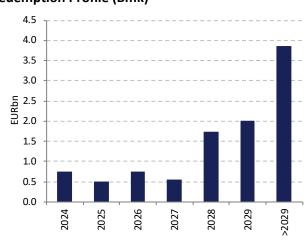
Regional Distribution



Spread Development



Redemption Profile (Bmk)





My Money Bank

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

My Money Bank SA

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB-	Negative

Homepage

www.mymoneybank.com

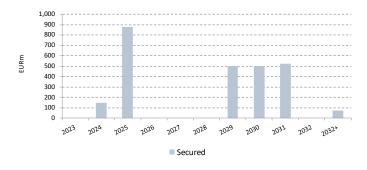
Headquartered in Paris, My Money Bank SA (MMB) is an independent banking group which emerged in 2017 from GE Money Bank (formerly part of the General Electric Group) and which is wholly owned by the private equity firm Cerberus Capital Management via the subsidiary Promontoria MMB. At 94%, the Special Financing segment dominates the loan portfolio of the My Money Group (as at FY 2022), with 6% attributable to Retail Banking. In terms of the breakdown at Group level, a total of 78% of the loan portfolio is attributable to My Money Bank (loans, mortgages, insurance products and deposits), while Banque des Caraibes SA (retail banking) accounts for 6% and 16% is attributable to Somafi-Soguafi and Sorefi (both active in the car and consumer loans business as well as insurance). The Group boasts high market shares in mortgage financing (France) and car financing (DOM region). In total, 65% of the funding mix comprises deposits (FY 2022), followed by covered bonds at 30%, which are issued via MMB SCF. In 2021, an agreement was signed with HSBC Continental Europe (HBCE) for the takeover of HBCE's retail banking business. The transaction encompasses customer loans and deposits totalling EUR 22bn and EUR 21bn (FY 2022) respectively. In addition, the covered bond programme of the wholly owned subsidiary HSBC SFH (France) is also to be transferred to MMG. However, owing to interest rate rises, MMG is experiencing difficulties in completing the transaction in line with the originally agreed terms. The acquisition is set to be closed in Q4 2023. Following completion of the takeover deal, MMB intends to revive the established brand of Credit Commercial de France (CCF), as the HBCE retail banking business was previously known.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	4,920	5,392	5,215
Total Securities	670	1,525	1,696
Total Deposits	3,942	4,299	4,773
Tier 1 Common Capital	-	-	-
Total Assets	7,249	8,478	8,751
Total Risk-weighted Assets	-	-	-

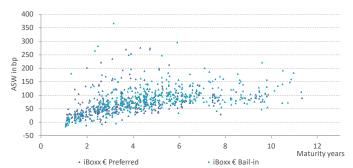
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	114	130	-
Net Fee & Commission Inc.	-22	-16	-
Net Trading Income	4	-8	-
Operating Expense	106	117	-
Credit Commit. Impairment	-	-	-
Pre-tax Profit	17	12	-

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.68	1.68	-	Liquidity Coverage Ratio	-	-	-
ROAE	3.53	2.44	-	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	78.63	79.51	-	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	-	-	-	Reserves/Loans at Amort. Cost	1.52	1.18	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Market shares in niche markets
- Management team

- Risks in connection with takeover (HSBC France Retail)
- Concentration risks (France)
- Operational inefficiencies compared with peers



MMB SCF - Mortgage

France II



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

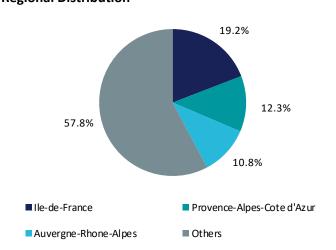
Cover Pool Data

3,137	Rating (Moody's)	-
2,630	Rating (S&P)	AAA
76.0%	Rating (Fitch)	-
19.3%	Rating (DBRS)	-
5.0%	TPI	-
Mortgage	TPI leeway	-
100% France	Collateral score	-
19% Ile-de-France	RRL	bbb+
30,045	JRL	a+
n/a	Unused notches	0
n/a	AAA credit risk (%)	3.1%
9.6y	PCU	-
5.7y	Recovery uplift	-
93.4%	Outstanding ESG BMKs	No
100.0%	LCR eligible	Yes
48.5%	LCR level (Bmk)	1
54.9%	Risk weight	10%
0.0%	Maturity structure (Bmk)	SB
	2,630 76.0% 19.3% 5.0% Mortgage 100% France 19% Ile-de-France 30,045 n/a n/a 9.6y 5.7y 93.4% 100.0% 48.5% 54.9%	2,630 Rating (S&P) 76.0% Rating (Fitch) 19.3% Rating (DBRS) 5.0% TPI Mortgage TPI leeway 100% France Collateral score 19% Ile-de-France RRL 30,045 JRL n/a Unused notches n/a AAA credit risk (%) 9.6y PCU 5.7y Recovery uplift 93.4% Outstanding ESG BMKs 100.0% LCR eligible 48.5% LCR level (Bmk) 54.9% Risk weight

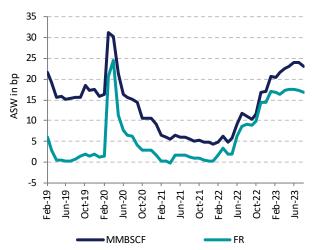
Borrower Types

1.8% 98.2% ■ Residential ■ Commercial ■ Multi-family ■ Others

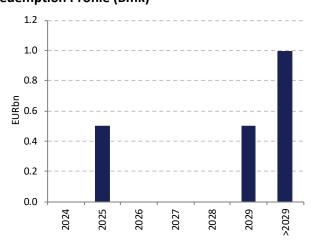
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Societe Generale

France



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Societe Generale SA

	Rating	Outlook
Fitch	A-	Positive
Moody's	A1	Stable
S&P	Α	Stable

Homepage

societegenerale.com

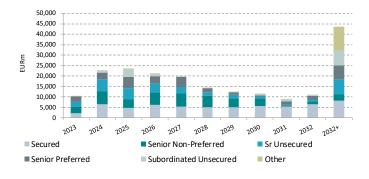
The French bank Societe Generale (SocGen), headquartered in Paris, is one of the leading financial institutions in Europe and is classified as a global systemically important bank (G-SIB; additional capital buffer: 1.0%). More than 117,000 employees provide services to approximately 25 million customers in 66 countries worldwide. SocGen is the fourth-largest retail and commercial bank in France. SocGen reports across four segments: French Retail Banking (24% of operating income in FY 2022), International Retail Banking and Financial Services (52%) and Global Banking and Investor Solutions (39%), as well as Corporate Centre (-16%). At 47% (Q1 2023), the highest share of the credit exposure is attributable to the domestic market of France, while a further 22% is attributable to the rest of Europe and 15% to North America. The sale of Rosbank and its Russian insurance subsidiary to Interros Capital was concluded on 18 May 2022 (impact: total assets reduced by EUR 16bn, customer loans fell by EUR 10bn, deposits cut by EUR 13bn). The merger of the SocGen retail network with Credit du Nord was completed on 1 January 2023, which is now expected to operate under the new SG brand. On 22 May 2023, details pertaining to the completed acquisition of LeasePlan by ALD Automotive (subsidiary of SocGen; responsible for leasing and fleet management) were published. Together they maintain a fleet of 3.3 million vehicles. In the area of ESG financing, the bank has announced a target of EUR 300bn up to 2025. In addition, SocGen has been a member of the Net-Zero Banking Alliance since 2021 and has ambitions of operating on a climate-neutral basis by 2050. In this context, SocGen intends to reduce its CO₂ emissions by 50% by 2030 in comparison with the level recorded in 2019.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	522,529	506,635	494,317
Total Securities	393,540	576,963	644,562
Total Deposits	509,133	530,764	536,228
Tier 1 Common Capital	49,835	48,639	48,333
Total Assets	1,464,449	1,484,900	1,553,624
Total Risk-weighted Assets	363,371	360,464	361,043

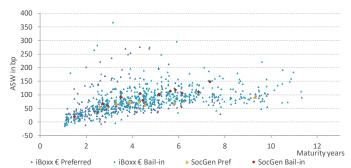
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	10,718	12,841	-
Net Fee & Commission Inc.	5,320	5,217	-
Net Trading Income	5,723	866	-
Operating Expense	17,581	18,017	-
Credit Commit. Impairment	710	1,625	-
Pro-tay Profit	8 N35	1 239	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.89	1.01	-	Liquidity Coverage Ratio	135.64	141.27	149.16
ROAE	9.21	3.86	5.88	IFRS Tier 1 Leverage Ratio	3.72	-	-
Cost-to-Income	68.05	66.29	-	NPL/Loans at Amortised Cost	3.27	3.10	3.22
Core Tier 1 Ratio	13.71	13.49	13.39	Reserves/Loans at Amort. Cost	2.16	2.09	2.16

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Diversification
- Earnings situation
- Capitalisation

- Capital market business harbours tail risks
- Dependency on wholesale funding
- Risks in the loan portfolio (SMEs)



Societe Generale SFH – Mortgage

France



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

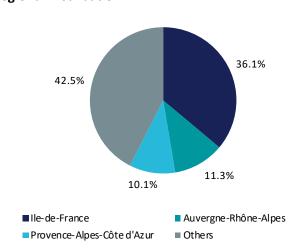
Cover Pool Data

Cover pool volume (EURm)	57,170	Rating (Moody's)	Aaa
Amount outstanding (EURm)	46,990	Rating (S&P)	-
-thereof ≥ EUR 500m	46.8%	Rating (Fitch)	AAA
Current OC (nominal)	21.7%	Rating (DBRS)	-
Committed OC	8.5%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	100% France	Collateral score	5.0%
Main region	36% Ile-de-France	RRL	-
Number of loans	449,249	JRL	-
Number of borrowers	395,119	Unused notches	-
Avg. exposure to borrowers (EUR)	142,712	AAA credit risk (%)	-
WAL (cover pool)	8.0y	PCU	6
WAL (covered bonds)	5.7y	Recovery uplift	2
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.8%	LCR eligible	Yes
LTV (indexed)	57.4%	LCR level (Bmk)	1
LTV (unindexed)	67.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

Borrower Types

1.4% 98.6% Residential Commercial Multi-family Others

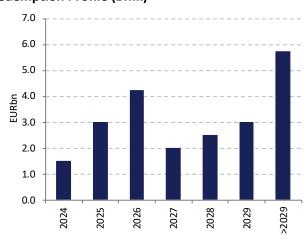
Regional Distribution



Spread Development



Redemption Profile (Bmk)





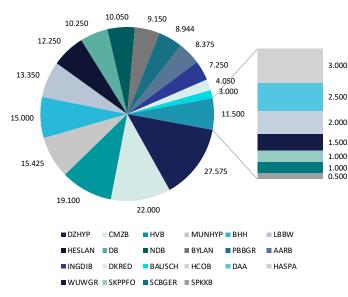
Market Overview Covered Bonds

Germany

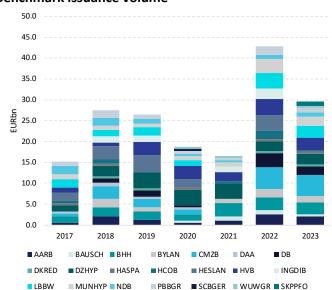
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 512.41bn	Outstanding volume (Bmk)	EUR 197.27bn
Amount outstanding	EUR 376.35bn	Number of benchmarks	281
Number of issuer	30	Outstanding ESG volume (Bmk)	EUR 21.50bn
No of cover pools	43	Number of ESG benchmarks	35
there of M / PS / others	30 / 12 / 1	Outstanding volume (SBmk)	EUR 11.85bn
Ratings (low / high)	AA- / AAA	Number of subbenchmarks	46
Best possible LCR level	Level 1	Maturity types	SB, CPT

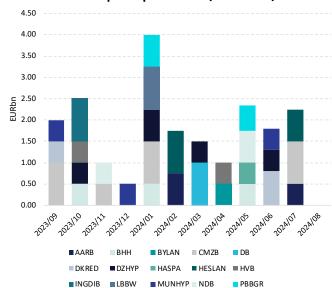
Outstanding benchmark volume¹ (EURbn)



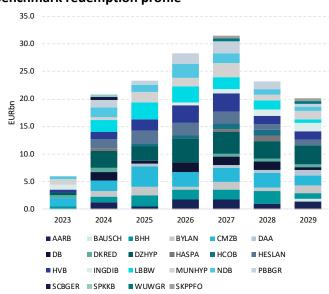
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Aareal Bank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Aareal Bank AG

	Rating	Outlook
Fitch	BBB+	Negative
Moody's	A3	Negative
S&P	-	-

Homepage

www.aareal-bank.com

Headquartered in Wiesbaden, Aareal Bank AG (Aareal) is the parent company of the Aareal Bank Group and an international supplier of financing, software products and digital solutions for the commercial real estate sector and adjacent industries. Aareal's business activities are conducted in the business segments Structured Property Financing (SPF; 84% of operating earnings in FY 2022), Banking & Digital Solutions (BDS; 18%) and Aareon (-1%). The SPF segment deals with financing commercial real estate and group refinancing activities. BDS offers customers a joint package of consultancy services focused on digitalisation, corporate banking and the deposit business. Aareon, the third operating segment, offers software solutions and digital solutions for the European real estate sector. In geographical terms, the commercial real estate financing portfolio operated by Aareal is focused on the regions of Western Europe (Q1 2023: 36%) and North America (30%). Additional shares of the portfolio are attributable to Southern Europe (9%), Germany (9%), CEE (6%) and Northern Europe (5%), among other regions. In terms of asset type, hotels account for 36% and office space for 26%. The funding mix (Q1 2023) comprised 44% customer deposits, 29% mortgage Pfandbriefe and 12% senior unsecured bonds (preferred). In May 2023, the ECB approved the acquisition of a majority stake (90%) in Aareal by Atlantic BidCo GmbH (a consortium comprising Advent International Corporation, Centerbridge Partners and CCP Investment Board Europe). Under its Green Finance Framework, Aareal regularly issues green bonds (commercial paper, senior unsecured).

Balance Sheet							
(EURm)	2021Y	2022Y	2023Q1				
Net Loans to Customers	29,546	29,889	29,793				
Total Securities	10,852	10,497	10,299				
Total Deposits	11,717	13,115	11,904				
Tier 1 Common Capital	2,327	2,468	2,511				
Total Assets	48,728	47,331	47,757				

12,817

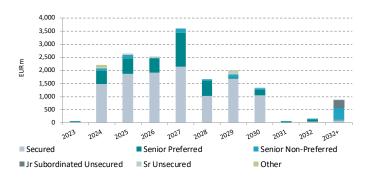
12,782

12,941

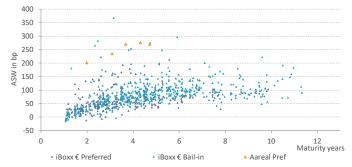
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	597	702	222
Net Fee & Commission Inc.	245	277	72
Net Trading Income	-12	25	-2
Operating Expense	528	571	199
Credit Commit. Impairment	133	192	32
Pre-tax Profit	155	239	62

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.31	1.44	1.93	Liquidity Coverage Ratio	254.81	206.08	207.29
ROAE	2.25	4.79	5.12	IFRS Tier 1 Leverage Ratio	5.01	5.71	-
Cost-to-Income	63.85	56.99	67.92	NPL/Loans at Amortised Cost	5.41	3.79	3.59
Core Tier 1 Ratio	18.16	19.31	19.40	Reserves/Loans at Amort. Cost	1.65	1.62	1.60

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Liquidity
- Potential of software development as a revenue

- Concentration of CRE segment
- Profitability
- NPL ratio above average



Aareal Bank - Mortgage

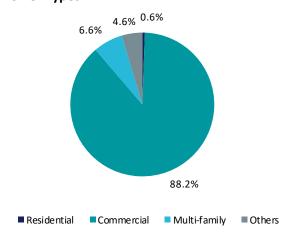
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany **=**

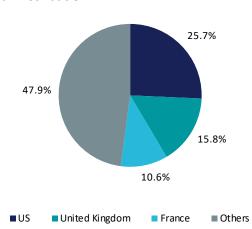
Cover Pool Data

Cover pool volume (EURm)	15,309	Rating (Moody's)	Aaa
Amount outstanding (EURm)	13,389	Rating (S&P)	-
-thereof ≥ EUR 500m	62.6%	Rating (Fitch)	-
Current OC (nominal)	14.3%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	2
Main country	26% US	Collateral score	18.2%
Main region	34% New York	RRL	-
Number of loans	2,697	JRL	-
Number of borrowers	2,876	Unused notches	-
Avg. exposure to borrowers (EUR)	5,077,128	AAA credit risk (%)	-
WAL (cover pool)	2.7y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	49.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	78.5%	LCR eligible	Yes
LTV (indexed)	31.8%	LCR level (Bmk)	1
LTV (unindexed)	55.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



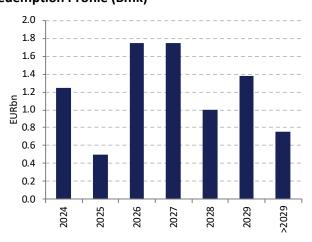
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bausparkasse Schwäbisch Hall

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bausparkasse Schwaebisch Hall AG

Rating	Outlook
AA-	Stable
Aa2	Stable
A+	Stable
	AA- Aa2

Homepage

www.schwaebisch-hall.de

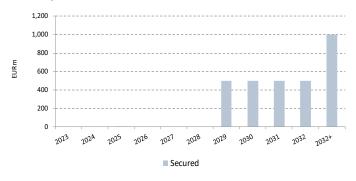
Bausparkasse Schwäbisch Hall AG (BSH) is majority-owned by DZ BANK AG and forms part of the cooperative FinanzGruppe, which comprises around 750 cooperative banks and roughly 17.9 million members. There is a profit transfer agreement in place between DZ BANK as the lead cooperative bank and BSH. The two business areas Domestic Building Society and Property Financing form the core segment. The Property Financing segment includes construction loans and brokering real estate loans for cooperative banks. In the Cross Selling business area, BSH brokers insurance policies in the area of real estate, pensions at cooperative banks and fund solutions from Union Investment. In addition to Germany, BSH is represented in China, Slovakia and Hungary. The bank splits its business activities into the following three segments: Bausparen and Housing Financing Domestic (FY 2022: consolidated earnings before tax: 82%), Bausparen and Housing Financing Non-Domestic (13%) and Other Domestic (4%). According to information from the bank itself, BSH is the largest German building society with a market share of around 30% on the domestic market and serves around 8 million customers at home and abroad, 6.5 million of which are located in Germany. BSH has concluded around 7.2 million contracted housing at a Bauspar sum of more than EUR 313bn (FY 2022) in Germany. The largest portion of the refinancing activities away from the capital market took place through home savings deposits and was supplemented by Pfandbrief issues. BSH offers its customers sustainable financing products for energy-efficient refurbishment projects and to improve the energy efficiency of real estate assets.

Balance Sheet (EURm) 2020Y 2021Y 2022Y 62.979 66,163 Net Loans to Customers 58,862 **Total Securities** 12,856 12,895 9,511 **Total Deposits** 65,074 66,733 66,851 4,967 5,047 4,086 Tier 1 Common Capital 85.371 85,599 Total Assets 81.673 Total Risk-weighted Assets 15,707 16.490 16,478

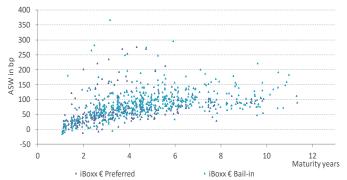
Income Statement 2020Y 2021Y 2022Y Net Interest Income 531 581 744 Net Fee & Commission Inc. -9 12 11

Net Interest Income	531	581	744
Net Fee & Commission Inc.	-9	12	11
Net Trading Income	76	20	-84
Operating Expense	526	515	528
Credit Commit. Impairment	27	14	16
Pre-tax Profit	81	130	143

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.67	0.70	0.88	Liquidity Coverage Ratio	508.33	NM	425.54
ROAE	1.00	1.52	1.82	IFRS Tier 1 Leverage Ratio	6.10	-	-
Cost-to-Income	82.75	78.70	76.82	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	31.62	30.61	24.80	Reserves/Loans at Amort. Cost	0.31	0.31	0.32

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Funding profile
- Credit quality on the domestic market
- Capitalisation

- Profitability
- Liquidity buffer
- Concentrated business activities



Bausparkasse Schwäbisch Hall – Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

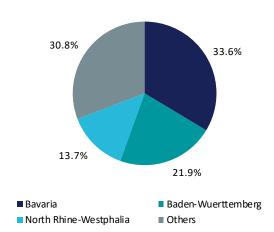
Cover Pool Data

Cover pool volume (EURm)	4,760	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,034	Rating (S&P)	-
-thereof ≥ EUR 500m	92.2%	Rating (Fitch)	-
Current OC (nominal)	56.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	6
Main country	100% Germany	Collateral score	5.0%
Main region	34% Bavaria	RRL	-
Number of loans	31,718	JRL	-
Number of borrowers	48,774	Unused notches	-
Avg. exposure to borrowers (EUR)	94,342	AAA credit risk (%)	-
WAL (cover pool)	10.6y	PCU	-
WAL (covered bonds)	8.6y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	49.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

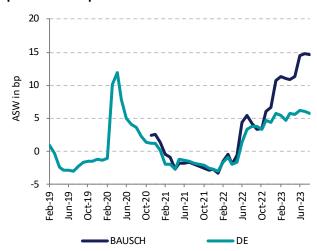
Borrower Types

3.5% 3.3% 0.5% 92.6% ■ Residential ■ Commercial ■ Multi-family ■ Others

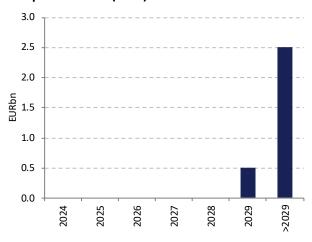
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bayerische Landesbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bayerische Landesbank

	Rating	Outlook
Fitch	A-	Stable
Moody's	Aa3	Positive
S&P	-	-

Homepage

www.bayernlb.de

Bayerische Landesbank (BayernLB) is a specialist bank headquartered in Munich. It is approximately 75% owned by the Free State of Bavaria, with the Association of Bavarian Savings Banks (Sparkassenverband Bayern) holding around 25%. BayernLB offers financial services to retail customers, medium-sized and large corporates in Germany as well as real estate financing. It also operates as the lead bank of the S-Finanzgruppe in Bavaria for the 61 Bavarian savings banks. Moreover, BayernLB is the parent company of the group and operates via its subsidiaries as a direct bank (DKB) and development bank of the Free State of Bavaria (BayernLabo) with a legal mandate to promote social housing, as well as in the areas of asset and capital management (Real I.S. and BayernInvest). The group, which employs around 8,500 staff (as at FY 2022), reports across the operating segments of Real Estate & Savings Banks/Financial Institutions (FY 2022: 26% of pre-tax profit), Corporates & Markets (14%) and DKB (32%). Reporting is supplemented by the segments Central Areas and Other (29%) and Consolidation. BayernLB focuses on the German market and is represented internationally via branches in New York, London, Paris and Milan. Geographically speaking, the loan portfolio (FY 2022) is geared towards Germany (83%), followed by Western Europe (9%), North America (5%) and Eastern Europe (1%). The green bonds issued as part of the Sustainable Financing Framework are used to finance sustainable projects in the categories of wind power, solar energy, mobility and real estate. In 2022, the bank issued a brace of inaugural green bonds (mortgage Pfandbrief and a green rail bond) with volumes of EUR 500m in each case.

2021Y	2022Y	2023Q1
158,461	166,483	-
29,131	23,447	-
119,292	123,304	136,500
10,966	11,357	11,343
266,554	259,343	285,700
	158,461 29,131 119,292 10,966	158,461 166,483 29,131 23,447 119,292 123,304 10,966 11,357

63,315

65,311

65,166

Income Statement

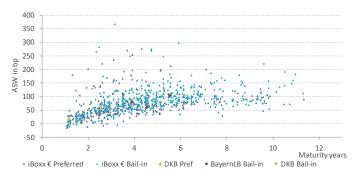
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	1,866	2,137	750
Net Fee & Commission Inc.	380	424	117
Net Trading Income	222	-124	38
Operating Expense	1,716	1,725	488
Credit Commit. Impairment	48	70	2
Pro-tay Profit	216	1 1 2 2	117

Total Risk-weighted Assets Redemption Profile



■ Senior Non-Preferred ■ Secured ■ Senior Preferred ■ Sr Unsecured ■ Subordinated Unsecured

Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.73	0.83	-	Liquidity Coverage Ratio	250.18	194.05	181.93
ROAE	4.63	8.27	10.01	IFRS Tier 1 Leverage Ratio	4.25	4.56	-
Cost-to-Income	66.54	59.42	52.08	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	17.32	17.39	17.41	Reserves/Loans at Amort. Cost	0.69	0.69	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Asset quality
- Capital ratios
- Liquidity profile

- Profitability
- Concentration risk in the CRE sector
- Dependency on wholesale funding



Bayerische Landesbank – Mortgage

Germany

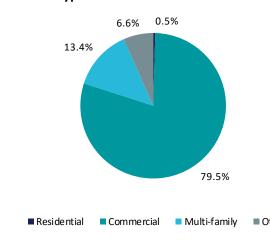


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

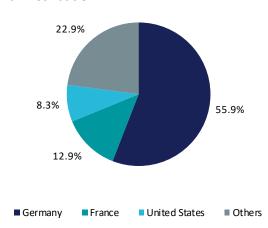
Cov	/er	Poo	Data

Cover pool volume (EURm)	11,442	Rating (Moody's)	Aaa
Amount outstanding (EURm)	8,747	Rating (S&P)	-
-thereof ≥ EUR 500m	34.3%	Rating (Fitch)	-
Current OC (nominal)	30.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	56% Germany	Collateral score	11.0%
Main region	41% Bavaria	RRL	-
Number of loans	619	JRL	-
Number of borrowers	471	Unused notches	-
Avg. exposure to borrowers (EUR)	22,687,723	AAA credit risk (%)	-
WAL (cover pool)	2.9y	PCU	-
WAL (covered bonds)	3.3y	Recovery uplift	-
Fixed interest (cover pool)	69.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	55.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	58.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



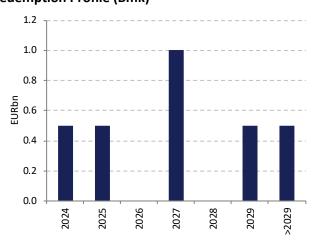
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bayerische Landesbank – Public Sector

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

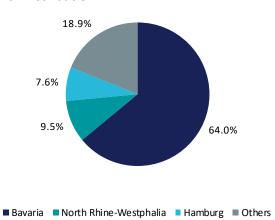
Cover Pool Data

Cover pool volume (EURm)	23,833	Rating (Moody's)	Aaa
Amount outstanding (EURm)	15,345	Rating (S&P)	-
-thereof ≥ EUR 500m	40.1%	Rating (Fitch)	-
Current OC (nominal)	55.3%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	5
Main country	94% Germany	Collateral score	6.1%
Main region	64% Bavaria	RRL	-
Number of loans	76,279	JRL	-
Number of borrowers	49,470	Unused notches	-
Avg. exposure to borrowers (EUR)	464,913	AAA credit risk (%)	-
WAL (cover pool)	8.6y	PCU	-
WAL (covered bonds)	5.8y	Recovery uplift	-
Fixed interest (cover pool)	93.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	97.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

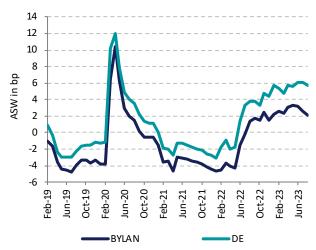
Borrower Types

8.0% 7.3% 38.6% 38.6% Region / Federal state Supras & others

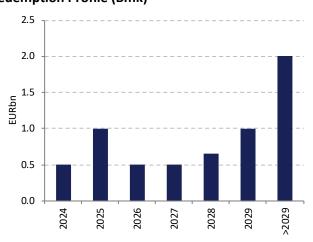
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Berlin Hyp

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Berlin Hyp AG

	Rating	Outlook
Fitch	A-	Stable
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.berlinhyp.de

Founded in 1868 and headquartered in Berlin, Berlin Hyp AG is a bank that specialises in the large-volume financing of commercial real estate. Since 1 July 2022, Berlin Hyp has been a wholly owned subsidiary of Landesbank Baden-Württemberg (LBBW) and an independent real estate financier in the Sparkassen-Finanzgruppe. In addition to fixed-interest loans, the range of products offered by Berlin Hyp also includes avals, business current accounts, financing products for construction projects and payment transaction services. Sales locations in Germany are selectively supplemented by foreign activities at locations in Amsterdam, Paris and Warsaw. The bank employs around 600 staff (FY 2022). The real estate portfolio (FY 2022) focuses on Germany (68%), followed by the Benelux countries (14%), France (8%) and Poland/Czech Republic (6%). In terms of asset type, the majority is attributable to the segments Office (41%), Residential (28%) and Retail (14%). Capital market funding is primarily obtained via the issuance of mortgage Pfandbriefe (April 2023: 65%) in addition to senior preferred (19%) and senior non-preferred bonds (14%). The topic of sustainability has been anchored as a central component of Berlin Hyp's corporate strategy for many years. In 2015, the bank placed its first Pfandbrief, which was followed by an inaugural green senior unsecured bond in 2016. At the end of December 2022, the green finance portfolio had a volume of over EUR 8.8bn. In January 2023, Berlin Hyp issued its first ESG dual tranche. This consisted of a social Pfandbrief and a green Pfandbrief, each with an issue volume of EUR 500m.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	24,383	26,191	28,003
Total Securities	6,223	6,795	5,554
Total Deposits	4,476	3,972	4,677
Tier 1 Common Capital	1,387	1,562	1,623
Total Assets	33,423	36,210	34,412
Total Risk-weighted Assets	10,321	10,952	11,854

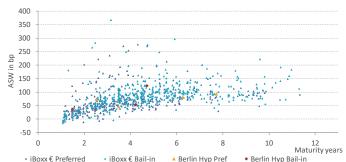
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	313	406	456
Net Fee & Commission Inc.	20	25	24
Net Trading Income	-	-	-
Operating Expense	173	184	207
Credit Commit. Impairment	81	17	-13
Pre-tay Profit	24	51	100

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.06	1.19	1.31	Liquidity Coverage Ratio	171.16	174.64	159.97
ROAE	-	-	2.46	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	51.04	43.39	44.16	NPL/Loans at Amortised Cost	0.58	0.56	0.45
Core Tier 1 Ratio	13.43	14.26	13.69	Reserves/Loans at Amort. Cost	1.23	1.20	1.07

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Profitability
- Probability of support from LBBW

- Dependency on wholesale funding
- Concentration risk in the CRE sector
- Regulatory pressure on capital ratios



Berlin Hyp – Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

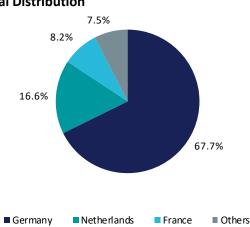
Cover Pool Data

Cover pool volume (EURm)	18,394	Rating (Moody's)	Aaa
Amount outstanding (EURm)	17,453	Rating (S&P)	-
-thereof ≥ EUR 500m	83.1%	Rating (Fitch)	-
Current OC (nominal)	5.4%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	68% Germany	Collateral score	16.3%
Main region	22% North Rhine-Westphalia	RRL	-
Number of loans	1,449	JRL	-
Number of borrowers	1,323	Unused notches	-
Avg. exposure to borrowers (E	UR) 13,112,444	AAA credit risk (%)	-
WAL (cover pool)	4.4y	PCU	-
WAL (covered bonds)	5.8y	Recovery uplift	-
Fixed interest (cover pool)	74.8%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.9%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	57.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

5.7% 1.0% 31.4% 62.0% ■ Residential ■ Commercial ■ Multi-family ■ Other

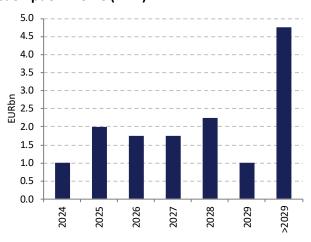
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Commerzbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Commerzbank AG

Rating	Outlook
-	-
A2	Stable
A-	Stable
	- A2

Homepage

www.commerzbank.de

As measured by assets, the Frankfurt-based Commerzbank AG (Coba) is one of Germany's largest banks. It serves a total of 11 million retail and commercial customers in addition to approximately 26,000 corporate client associations in 450 branches nationwide (FY 2022). The largest shareholder in the DAX-listed bank is the Federal Republic of Germany with 15.6% (03 July 2023), which it holds via the Financial Market Stabilisation Fund (FMS). Coba operates on an international basis via a network of more than 400 branches in just under 40 countries. Reporting is conducted across three business areas: Retail and Business Customers (PUK; 48% of operating earnings in FY 2022), Corporate Customers (FK; 51%) and Other and Consolidation (SUK; 1%). Coba bundles its domestic branch business in the PUK segment, in addition to activities under the Comdirect brand and business with its subsidiaries Commerz Real and the mBank Group. The FK segment comprises all SME and large corporate customers in Germany and abroad in addition to institutional clients. The SUK segment serves as a collective item for all activities that do not fall under the two segments PUK and FK, such as the Group Treasury and wind-down portfolios. In terms of capital market refinancing activities, Coba reports a volume of EUR 55.1bn (FY 2022), with 49% of the funding mix attributable to covered bonds, 39% to senior bonds (preferred and non-preferred), as well as 12% to subordinated capital. As part of its sustainability objectives, the bank plans to issue sustainable financial products with a volume of EUR 300bn by 2025. In 2022, Coba issued its third green bond with an issuance volume of

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	257,315	261,411	-
Total Securities	116,291	96,729	-
Total Deposits	272,280	312,652	-
Tier 1 Common Capital	23,765	23,854	24,368
Total Assets	467,409	477,438	497,357
Total Risk-weighted Assets	175,188	168,731	171,528

Income Statement 2021Y (EURm) 2022Y 2023Q1 Net Interest Income 4,849 6,459 1,947 Net Fee & Commission Inc. 3,607 3,519 915 **Net Trading Income** 665 35 -81 **Operating Expense** 7,361 6,570 1,728

576

105

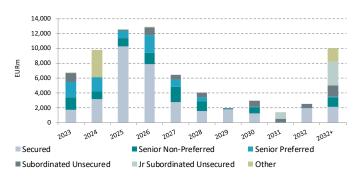
865

2,005

68

871

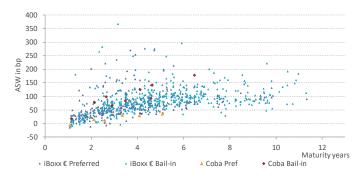
Redemption Profile



Senior Unsecured Bonds (EUR BMK)

Credit Commit. Impairment

Pre-tax Profit



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.94	1.27	1.63	Liquidity Coverage Ratio	145.85	141.30	141.34
ROAE	1.21	4.60	7.56	IFRS Tier 1 Leverage Ratio	5.49	5.25	-
Cost-to-Income	88.74	67.84	65.26	NPL/Loans at Amortised Cost	1.69	2.24	-
Core Tier 1 Ratio	13.57	14.14	14.21	Reserves/Loans at Amort. Cost	1.14	1.19	-

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 28.07.2023$

Strengths / Opportunities

- Market position in German corporate sector business
- Capitalisation
- Asset quality

- Legal dispute concerning Polish subsidiary mBank
- Ongoing restructuring
- Dependency on wholesale funding



Commerzbank – Mortgage

Germany

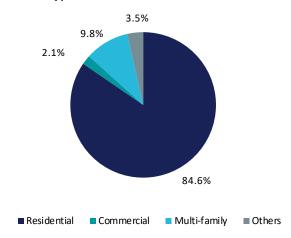


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

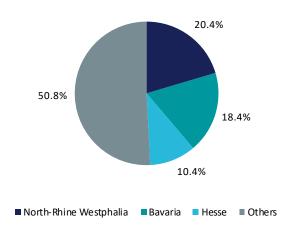
Cover Pool Data

Cover pool volume (EURm)	41,299	Rating (Moody's)	Aaa
Amount outstanding (EURm)	29,558	Rating (S&P)	-
-thereof ≥ EUR 500m	66.8%	Rating (Fitch)	-
Current OC (nominal)	39.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Germany	Collateral score	5.3%
Main region	20% North-Rhine Westphalia	RRL	-
Number of loans	309,427	JRL	-
Number of borrowers	239,800	Unused notches	-
Avg. exposure to borrowers (E	EUR) 166,177	AAA credit risk (%)	-
WAL (cover pool)	5.6y	PCU	-
WAL (covered bonds)	4.3y	Recovery uplift	-
Fixed interest (cover pool)	98.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds) 76.3%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	51.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

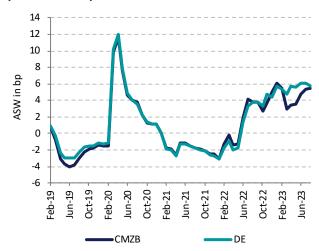
Borrower Types



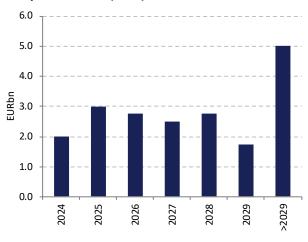
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Commerzbank - Public Sector

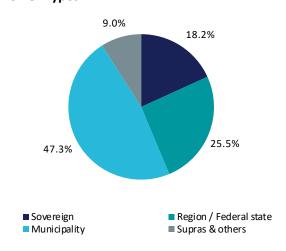
Germany

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

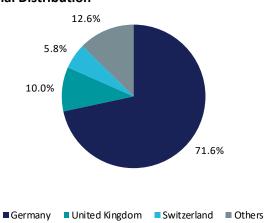
Cover Pool Data

Cover pool volume (EURm)	15,193	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,241	Rating (S&P)	-
-thereof ≥ EUR 500m	8.1%	Rating (Fitch)	-
Current OC (nominal)	64.4%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	4
Main country	72% Germany	Collateral score	3.6%
Main region	18% Central	RRL	-
Number of loans	1,786	JRL	-
Number of borrowers	807	Unused notches	-
Avg. exposure to borrowers (EUR)	18,827,133	AAA credit risk (%)	-
WAL (cover pool)	10.2y	PCU	-
WAL (covered bonds)	4.2y	Recovery uplift	-
Fixed interest (cover pool)	78.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	52.4%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

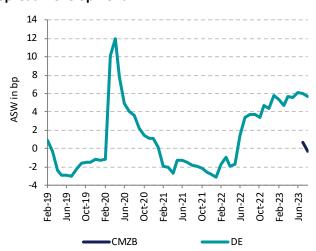
Borrower Types



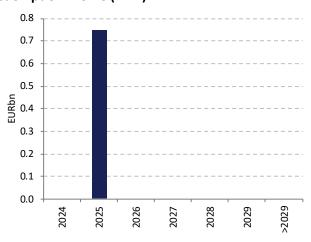
Regional Distribution



Spread Development



Redemption Profile (Bmk)





DekaBank Deutsche Girozentrale

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

DekaBank Deutsche Girozentrale

	Rating	Outlool
Fitch	-	-
Moody's	Aa2	Stable
S&P	Α	Stable

Homepage

www.deka.de

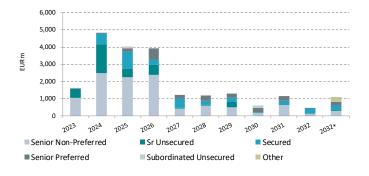
DekaBank Deutsche Girozentrale (DekaBank) acts in the legal form of a public law institution (Anstalt öffentlichen Rechts) and is headquartered in Frankfurt am Main and Berlin. As one of the four largest asset managers of public funds in Germany, the bank declares that it has a market share of 12.4% in this area. With more than 4,300 employees, DekaBank functions as an investment firm for the German savings banks. Together with its subsidiaries, these all form the Deka Group. A total of 50% of the shares are held by the German Savings Banks Association (DSGV), with the other 50% owned by Deka Erwerbsgesellschaft mhb & CO. KG. DekaBank is also a member of the Savings Banks Financial Group. In organisational terms, DekaBank divides its activities into five business fields: both of the asset management segments (AM Securities: 56% of pre-tax profit in FY 2022; and AM Real Estate: 17%) are focused on funds-based products and services. The business unit Asset Management Services (-0%) concentrates on the provision of banking services for asset management activities. In addition, the banking business is modelled on the business areas Capital Market (18%) and Financing (13%). DekaBank's primary customers are the domestic savings banks and their customers. Moreover, products such as insurance policies and pension funds are also sold to institutional customers. The gross lending volume (FY 2022) is split between Germany (53%), Luxembourg (10%), France (8%) and the UK (7%), in addition to the category Other (23%). DekaBank offers its customers a range of funds with a focus on sustainability aspects. As at year-end 2022, the bank administered 108 sustainable retail funds (volume: EUR 31.4bn).

Balance Sheet			
(EURm)	2021Y	2021Y	2022Y
Net Loans to Customers	31,182	31,182	29,661
Total Securities	26,500	26,500	27,029
Total Deposits	23,595	23,595	25,106
Tier 1 Common Capital	4,716	4,716	5,462
Total Assets	88,865	88,865	97,396
Total Risk-weighted Assets	30 944	30 944	31 360

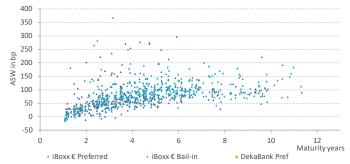
Income Statement

meonic statement			
(EURm)	2021Y	2021Y	2022Y
Net Interest Income	172	172	216
Net Fee & Commission Inc.	1,624	1,624	1,593
Net Trading Income	220	220	290
Operating Expense	1,183	1,183	1,252
Credit Commit. Impairment	19	19	36
Pre-tax Profit	791	791	801

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2021Y	2022Y		2021Y	2021Y	2022Y
Net Interest Margin	0.20	0.20	0.24	Liquidity Coverage Ratio	0.20	0.20	0.24
ROAE	8.95	8.95	8.15	IFRS Tier 1 Leverage Ratio	8.95	8.95	8.15
Cost-to-Income	59.94	59.94	59.79	NPL/Loans at Amortised Cost	59.94	59.94	59.79
Core Tier 1 Ratio	15.24	15.24	17.42	Reserves/Loans at Amort. Cost	15.24	15.24	17.42

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Member and strategic unit of S-Finanzgruppe
- Capitalisation
- Recurring provision income

- Dependency on wholesale funding
- Income volatility from capital market link
- Risk diversification (credit business)



DekaBank - Mortgage

Germany

54.2%



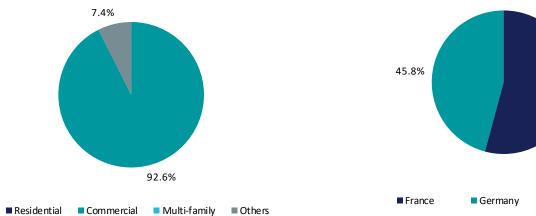
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	1,294	Rating (Moody's)	Aaa
Amount outstanding (EURm)	651	Rating (S&P)	-
-thereof ≥ EUR 250m	38.4%	Rating (Fitch)	-
Current OC (nominal)	98.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	6
Main country	54% France	Collateral score	30.5%
Main region	48% Ile-de-France	RRL	-
Number of loans	30	JRL	-
Number of borrowers	33	Unused notches	-
Avg. exposure to borrowers (EUR)	36,308,361	AAA credit risk (%)	-
WAL (cover pool)	2.9y	PCU	-
WAL (covered bonds)	2.2y	Recovery uplift	-
Fixed interest (cover pool)	73.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	59.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types

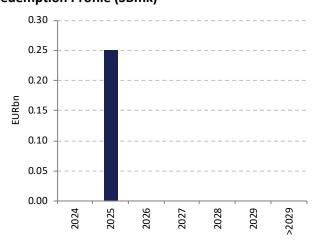
Regional Distribution



Spread Development

ASW in bp Peb-19 Oct-19 Oct-20 Jun-21 Jun-22 Feb-23 Feb-23 Feb-23 Jun-22 Jun-22 Feb-23 Feb-23

Redemption Profile (SBmk)





DekaBank - Public Sector

Germany

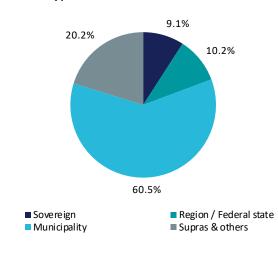


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

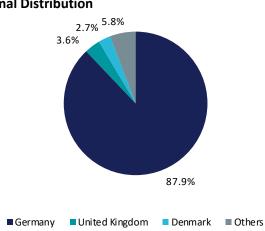
Cover Pool Data

Cover pool volume (EURm)	4,223	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,294	Rating (S&P)	-
-thereof ≥ EUR 250m	83.5%	Rating (Fitch)	-
Current OC (nominal)	28.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	6
Main country	88% Germany	Collateral score	7.0%
Main region	45% North Rhine-Westphalia	RRL	-
Number of loans	282	JRL	-
Number of borrowers	90	Unused notches	-
Avg. exposure to borrowers (E	UR) 46,918,889	AAA credit risk (%)	-
WAL (cover pool)	5.9y	PCU	-
WAL (covered bonds)	5.0y	Recovery uplift	-
Fixed interest (cover pool)	80.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

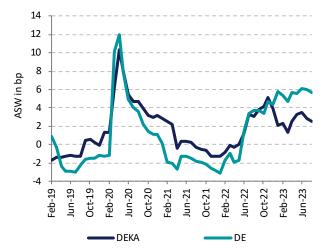
Borrower Types



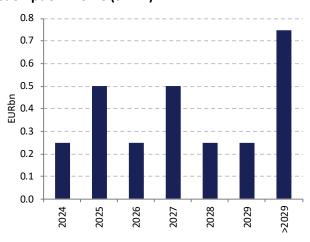
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Deutsche Apotheker- und Ärztebank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Deutsche Apotheker-und Ärztebank eG

	Rating	Outlook
Fitch	AA-	Stable
Moody's	-	-
S&P*	A+	Stable

Homepage

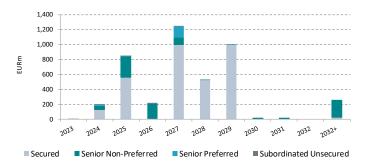
www.apobank.de

The Düsseldorf-based Deutsche Apotheker- und Ärztebank eG (apoBank), which operates as a cooperative, specialises in providing economic assistance and support for health professionals and their organisations in Germany. It has more than 113,500 members (FY 2022), who are simultaneously the owners of the bank. Nearly 2,300 employees serve a total of around 500,000 customers and members across 80 locations. The bank forms part of the cooperative FinanzGruppe and is a member of the cooperative protection scheme of the National Association of German Cooperative Banks (Bundesverbandes der Deutschen Volksbanken und Raiffeisenbanken e.V. [BVR]). Within this association, apoBank is according to its own information – the largest cooperative primary bank and is a leader in the area of healthcare in terms of financing and supporting start-ups as well as for payment transactions. Furthermore, apoBank offers its customers solutions that have been customised for the healthcare market and medical professionals. The bank splits its activities into two business areas geared towards its customer groups: Retail Customers as well as Professional Bodies and Key Clients. The bank's loan portfolio (FY 2022) comprises the categories Real Estate (51%), Start-Ups (23%), Corporate Clients (15%) and Investment Finance (12%). The bank's capital market refinancing activities comprise three components: Pfandbriefe, unsecured bonds (preferred and non-preferred) and subordinated issuances. In addition, apoBank takes advantage of refinancing options provided by Kreditanstalt für Wiederaufbau (KfW), although the majority is accounted for by deposits (>50%). By 2045, the bank is planning to achieve net zero emissions in connection with its business activities.

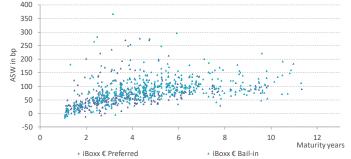
Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	38,240	37,787	37,008
Total Securities	8,034	10,213	7,206
Total Deposits	33,241	37,140	33,934
Tier 1 Common Capital	2,459	2,446	2,331
Total Assets	59,440	67,372	54,184
Total Risk-weighted Assets	15,095	15,427	14,752

Income Statement 2020Y (EURm) 2021Y 2022Y 685 Net Interest Income 750 766 Net Fee & Commission Inc. 184 193 184 6 7 6 **Net Trading Income** 799 745 760 **Operating Expense** Credit Commit. Impairment 2 36 6 Pre-tax Profit 124 151 111

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.39	1.09	1.27	Liquidity Coverage Ratio	150.75	226.11	282.26
ROAE	2.42	2.32	2.26	IFRS Tier 1 Leverage Ratio	4.15	3.64	4.31
Cost-to-Income	81.23	79.83	75.92	NPL/Loans at Amortised Cost	1.64	-	-
Core Tier 1 Ratio	16.29	15.86	15.80	Reserves/Loans at Amort. Cost	0.79	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Member of the FinanzGruppe protection scheme
- Market position in the healthcare sector
- Capitalisation

- Profitability
- Concentration & dependency on the healthcare sector
- Customer satisfaction (IT, digitalisation)

^{*} Rating der FinanzGruppe



apoBank - Mortgage

Germany

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	8,727	Rating (Moody's)	-
Amount outstanding (EURm) 4,401	Rating (S&P)	AAA
-thereof ≥ EUR 500m	56.8%	Rating (Fitch)	-
Current OC (nominal)	98.3%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Germany	Collateral score	-
Main region	25% North Rhine-Westphalia	RRL	aa
Number of loans	77,750	JRL	aaa
Number of borrowers	42,776	Unused notches	4
Avg. exposure to borrowers	(EUR) 194,330	AAA credit risk (%)	5.6%
WAL (cover pool)	5.0y	PCU	-
WAL (covered bonds)	7.1y	Recovery uplift	-
Fixed interest (cover pool)	92.9%	Outstanding ESG BMKs	No
Fixed interest (covered bond	ds) 97.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

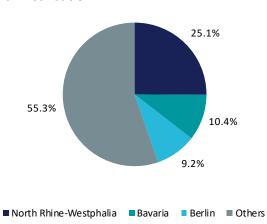
Borrower Types

4.8%

Commercial

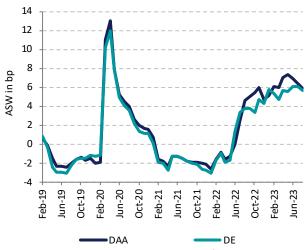
Multi-family

Regional Distribution

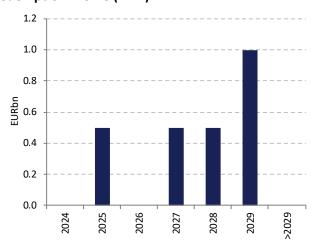


Spread Development

■ Residential



Redemption Profile (Bmk)





Deutsche Bank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Deutsche Bank AG

	Rating	Outlook
Fitch	A-	Stable
Moody's	A1	Stable
S&P	A-	Positive

Homepage

www.db.com

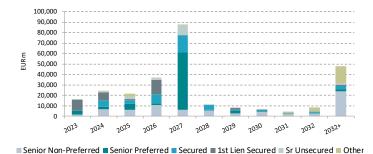
As measured by total assets (FY 2022: EUR 1.34tn), Deutsche Bank AG (DB) is Germany's largest financial institution and is classified as a global systemically important bank (G-SIB). In 58 countries, DB employs around 85,000 staff, who work across a network of approximately 1,500 branches (66% of which are located in Germany). Reporting at the bank can be broken down into the following business units: Corporate Bank (UB; 26% of earnings in Q1 2023), Investment Bank (IB; 35%), Retail Customer Bank (PB; 32%), Asset Management (DWS; 8%) and Corporate and Other (-0%). Corporate and commercial customers in addition to multinational companies are served by the UB segment. The IB segment combines business focused on net interest income and FX dealings, as well as issuance and consulting activities, plus research services. The PB business unit caters to retail customers, high net worth private individuals, entrepreneurs and family offices, while SMEs are also advised on international business matters. In Germany, PB is active with the core brands Deutsche Bank and Postbank. DWS includes wealth management and offers private investors, companies and government institutions access to a large number of asset classes. In geographical terms, the loan portfolio focuses on Germany (Q1 2023: 48%), followed by EMEA excluding Germany (21%) and North America (21%). In April 2023, DB announced that it had agreed terms for the acquisition of Numis Corporation Plc. According to the bank itself, the takeover of the corporate broker and consulting company aligns with DB's efforts to accelerate its global house bank strategy and establish a leading position in the UK investment banking market. Capital market funding comprises 44% senior non-preferred, with shares of 19% and 14% attributable to capital instruments and covered bonds respectively (Q1 2023).

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	478,445	489,949	482,642
Total Securities	515,015	513,548	496,347
Total Deposits	519,435	536,404	-
Tier 1 Common Capital	46,506	48,097	48,926
Total Assets	1,323,993	1,336,788	1,306,777
Total Risk-weighted Assets	351,629	360,003	359,534

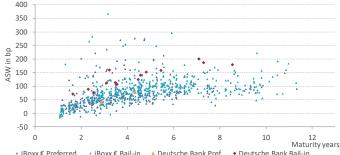
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	11,155	13,650	3,424
Net Fee & Commission Inc.	10,934	9,838	2,348
Net Trading Income	3,407	2,630	1,643
Operating Expense	20,921	20,281	5,457
Credit Commit. Impairment	515	1,226	372
Pre-tax Profit	3,390	5,594	1,852

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.95	1.11	1.17	Liquidity Coverage Ratio	133.86	135.82	129.08
ROAE	3.86	8.12	7.26	IFRS Tier 1 Leverage Ratio	4.52	4.60	-
Cost-to-Income	82.33	74.54	71.05	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	13.23	13.36	13.61	Reserves/Loans at Amort. Cost	1.02	1.01	1.02

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Diversified business model
- Market position in Germany

- Implementation of medium-term strategy
- Stable and growing earnings (market environment)
- Complexity and cyclical nature of investment banking



Deutsche Bank - Mortgage

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany =

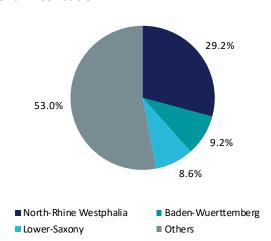
Cover Pool Data

Cover pool volume (EURm)	16,400	Rating (Moody's)	Aaa
Amount outstanding (EURm)	13,625	Rating (S&P)	-
-thereof ≥ EUR 500m	71.6%	Rating (Fitch)	-
Current OC (nominal)	20.4%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Germany	Collateral score	5.3%
Main region	29% North-Rhine Westphalia	RRL	-
Number of loans	137,986	JRL	-
Number of borrowers	118,571	Unused notches	-
Avg. exposure to borrowers (E	EUR) 130,567	AAA credit risk (%)	-
WAL (cover pool)	6.4y	PCU	-
WAL (covered bonds)	5.4y	Recovery uplift	-
Fixed interest (cover pool)	99.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	90.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	53.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

5.6% 15.8% 6.0% 72.6% Residential Commercial Multi-family Others

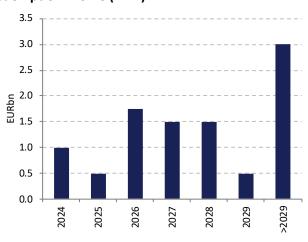
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Deutsche Bank – Mortgage (CPT)

Germany

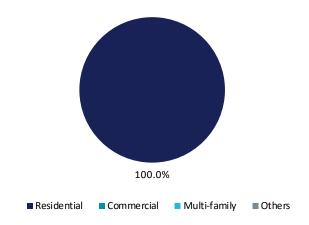
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

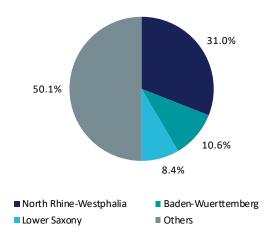
Cover Pool Data

Cover pool volume (EURm)	4,596	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,310	Rating (S&P)	-
-thereof ≥ EUR 500m	15.1%	Rating (Fitch)	-
Current OC (nominal)	38.8%	Rating (DBRS)	AA
Committed OC	15.0%	TPI	High
Cover type	Mortgage	TPI leeway	3
Main country	100% Germany	Collateral score	8.4%
Main region	31% North Rhine-Westphalia	RRL	-
Number of loans	50,767	JRL	-
Number of borrowers	40,626	Unused notches	-
Avg. exposure to borrowers	(EUR) 113,127	AAA credit risk (%)	-
WAL (cover pool)	17.7y	PCU	-
WAL (covered bonds)	4.1y	Recovery uplift	-
Fixed interest (cover pool)	98.9%	Outstanding ESG BMKs	No
Fixed interest (covered bond	s) 69.8%	LCR eligible	No
LTV (indexed)	-	LCR level (Bmk)	Not eligible
LTV (unindexed)	71.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	СРТ

Borrower Types

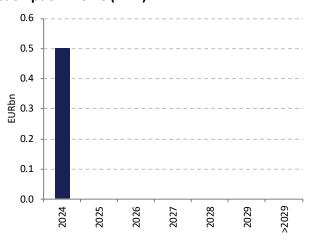
Regional Distribution





Spread Development

Redemption Profile (Bmk)





Deutsche Kreditbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Deutsche Kreditbank AG

	Rating	Outlook
Fitch	-	-
Moody's	A1	Stable
S&P	-	-

Homepage

www.dkb.de

Deutsche Kreditbank AG (DKB), headquartered in Berlin, is a leading direct bank and is wholly owned by Bayerische Landesbank (BayernLB). The DKB business model is based on the direct banking business with more than 5.3 million retail customers (FY 2022), who are served on a digital basis across Germany, and the corporate customer business, which offers consulting services to these customers at 26 different locations in Germany. DKB employs around 5,100 staff overall, who offer customers products including current accounts and business accounts, deposits, home loans in addition to financing products for municipalities and energy projects. The DKB Group comprises DKB AG and its subsidiaries, which include DKB Service GmbH, DKB Grund GmbH and DKB Finance GmbH. DKB reports across the market segments of Retail Customers (FY 2022: 25% of pre-tax profit), Corporate Customers (70%) and Infrastructure (68%), as well as in the Financial Markets (-28%) and Other (-28%) segments. Geographically speaking, the loan portfolio is practically exclusively based in Germany. DKB's refinancing activities are primarily focused on customer deposits (FY 2022: 67%) and pass-through loans (11%). The sustainability strategy is centred on the Paris Agreement for climate protection and the UN Sustainable Development Goals (SDGs). In April 2022, DKB issued its first mortgage Pfandbrief with a social focus (volume: EUR 500m), with the proceeds put towards refinancing loans to municipal housing associations. In addition, DKB is active as an issuer of green bonds. As at year-end 2022, two green bonds (EUR 500m each) were outstanding.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	76,140	83,776	88,887
Total Securities	6,705	9,600	4,738
Total Deposits	72,409	83,481	85,232
Tier 1 Common Capital	3,291	4,654	4,912
Total Assets	109,840	134,946	121,035
Total Risk-weighted Assets	35,282	39,110	42,341

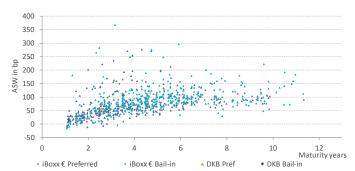
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	954	1,019	1,313
Net Fee & Commission Inc.	-22	22	88
Net Trading Income	61	52	-217
Operating Expense	719	746	819
Credit Commit. Impairment	44	-3	13
Pro-tay Profit	250	363	356

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.99	0.84	1.03	Liquidity Coverage Ratio	258.77	462.63	349.35
ROAE	6.95	7.01	4.29	IFRS Tier 1 Leverage Ratio	3.00	3.45	4.07
Cost-to-Income	71.34	67.71	68.82	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	9.33	11.90	11.60	Reserves/Loans at Amort. Cost	0.55	0.47	0.42

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Funding profile
- Asset quality
- Capitalisation

- Regional and sectoral loan concentration
- Profitability
- Liquidity



Deutsche Kreditbank – Mortgage

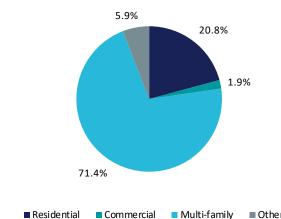
Germany



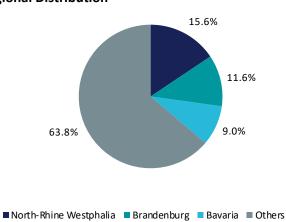
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover pool volume (EURm)	5,506	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,502	Rating (S&P)	-
-thereof ≥ EUR 500m	56.6%	Rating (Fitch)	-
Current OC (nominal)	22.3%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Germany	Collateral score	14.9%
Main region	16% North-Rhine Westphalia	RRL	-
Number of loans	7,532	JRL	-
Number of borrowers	5,440	Unused notches	-
Avg. exposure to borrowers	(EUR) 951,470	AAA credit risk (%)	-
WAL (cover pool)	6.4y	PCU	-
WAL (covered bonds)	5.4y	Recovery uplift	-
Fixed interest (cover pool)	95.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bond	s) 100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	50.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

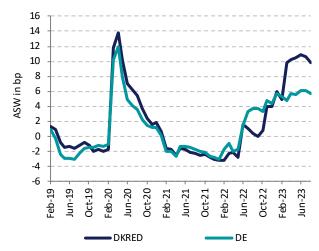
Borrower Types



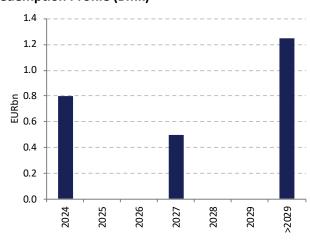
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Deutsche Kreditbank - Public Sector

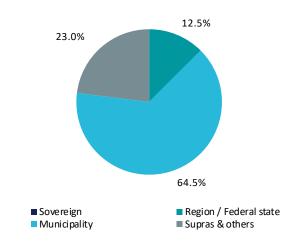
Germany

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

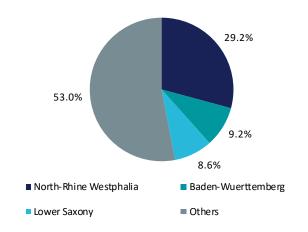
Cover Pool Data

Cover pool volume (EURm)	6,983	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,887	Rating (S&P)	-
-thereof ≥ EUR 500m	34.6%	Rating (Fitch)	-
Current OC (nominal)	141.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	4
Main country	100% Germany	Collateral score	2.5%
Main region	29% North-Rhine Westphalia	RRL	-
Number of loans	n/a	JRL	-
Number of borrowers	2,031	Unused notches	-
Avg. exposure to borrowers	(EUR) 3,438,321	AAA credit risk (%)	-
WAL (cover pool)	9.2y	PCU	-
WAL (covered bonds)	5.6y	Recovery uplift	-
Fixed interest (cover pool)	95.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bond	s) 100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

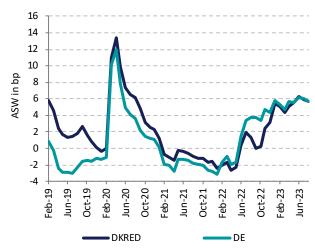
Borrower Types



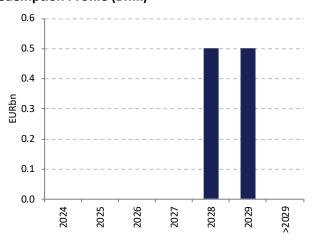
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Deutsche Pfandbriefbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Deutsche Pfandbriefbank AG

	Rating	Outlook
Fitch		-
Moody's		-
S&P	BBB+	Stable

Homepage

www.pfandbriefbank.com

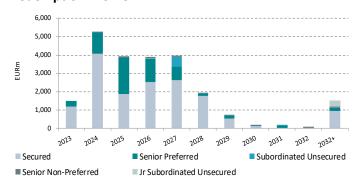
Deutsche Pfandbriefbank AG (pbb) is a leading European specialist bank for commercial real estate finance and public investment projects, with a focus on Pfandbrief-eligible business. The institution employs around 800 staff (Q1 2023; full-time equivalent). pbb's core business is real estate lending, whereby it offers derivative financial instruments to hedge the risk of lending transactions, in addition to traditional customised financing solutions. As part of the digitalisation strategy, the subsidiary CAPVERIANT GmbH operates a platform that brings together public sector borrowers and institutional investors. Furthermore, it was decided at the end of 2022 to expand the business model to include real estate investment management (with the first launch of an open-ended special real estate fund in H1 2023) and to diversify the sources of income more strongly. Clients are predominantly professional real estate investors. In Germany, the offering is also aimed at medium-sized companies and regional clients. In addition, public infrastructure projects eligible for Pfandbriefe are financed on a selective basis. In addition to Germany and Europe, the core markets are primarily the metropolitan areas of the USA. Funding is largely provided by Pfandbriefe, followed by unsecured funding. pbb is one of the Pfandbrief issuers in Germany with regular benchmark issues. Under the Green Bond Framework, the Bank can issue Green Bonds in both Pfandbrief and senior unsecured format. Since 2021, pbb has placed EUR 3.3bn in Green Bonds. The share of "green" financing in the REF portfolio is expected to increase to over 30% by 2026 (FY 2022: 11%).

Balance Sheet

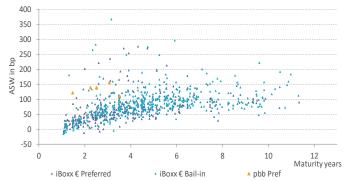
(EURm)	2021Y	2022Y	2023Q1	(1
Net Loans to Customers	39,371	38,272	38,170	Ν
Total Securities	9,522	7,644	7,526	Ν
Total Deposits	20,100	17,889	18,840	N
Tier 1 Common Capital	2,875	2,843	2,831	О
Total Assets	58,402	53,007	53,661	С
Total Risk-weighted Assets	16.792	17.017	17.089	Р

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	494	489	106
Net Fee & Commission Inc.	8	8	1
Net Trading Income	87	31	13
Operating Expense	268	274	85
Credit Commit. Impairment	81	44	2
Pre-tax Profit	242	213	32

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.85	0.88	0.80	Liquidity Coverage Ratio	293.63	239.73	266.62
ROAE	6.79	5.49	3.14	IFRS Tier 1 Leverage Ratio	5.10	5.55	5.44
Cost-to-Income	45.35	51.60	71.43	NPL/Loans at Amortised Cost	1.50	2.22	2.22
Core Tier 1 Ratio	17.12	16.71	16.57	Reserves/Loans at Amort. Cost	0.87	1.02	1.02

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Geographical diversification
- Capitalisation

- Credit risk concentration in CRE sector
- Dependency on wholesale funding



Deutsche Pfandbriefbank – Mortgage

Germany

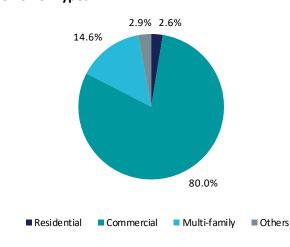


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

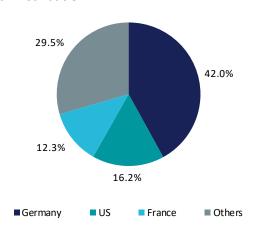
Cover Pool Data

Cover pool volume (EURm)	19,230	Rating (Moody's)	Aa1
Amount outstanding (EURm)	15,120	Rating (S&P)	-
-thereof ≥ EUR 500m	49.6%	Rating (Fitch)	-
Current OC (nominal)	27.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	Unpublished
Main country	42% Germany	Collateral score	19.8%
Main region	37% Berlin	RRL	-
Number of loans	1,503	JRL	-
Number of borrowers	739	Unused notches	-
Avg. exposure to borrowers (EUR)	25,267,632	AAA credit risk (%)	-
WAL (cover pool)	3.4y	PCU	-
WAL (covered bonds)	5.6y	Recovery uplift	-
Fixed interest (cover pool)	57.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	90.0%	LCR eligible	Yes
LTV (indexed)	32.7%	LCR level (Bmk)	1
LTV (unindexed)	56.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

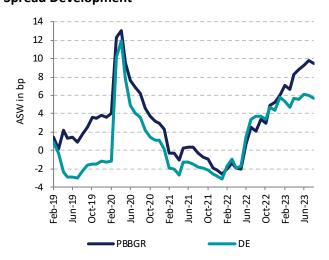
Borrower Types



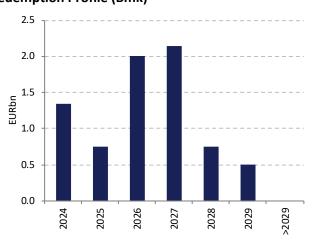
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Deutsche Pfandbriefbank – Public Sector

Germany

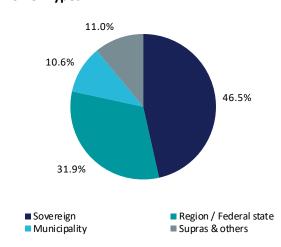


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

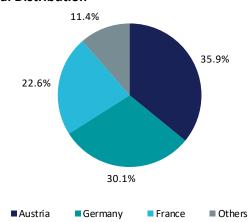
Cover Pool Data

Cover pool volume (EURm)	10,480	Rating (Moody's)	Aa1
Amount outstanding (EURm)	8,410	Rating (S&P)	-
-thereof ≥ EUR 500m	17.2%	Rating (Fitch)	-
Current OC (nominal)	24.6%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	Unpublished
Main country	36% Austria	Collateral score	16.0%
Main region	93% Vienna	RRL	-
Number of loans	449	JRL	-
Number of borrowers	195	Unused notches	-
Avg. exposure to borrowers (EUR)	53,742,366	AAA credit risk (%)	-
WAL (cover pool)	8.2y	PCU	-
WAL (covered bonds)	6.8y	Recovery uplift	-
Fixed interest (cover pool)	76.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	77.4%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

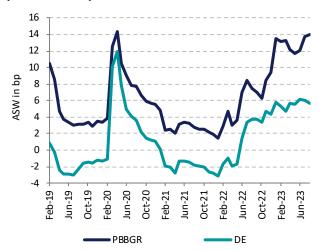
Borrower Types



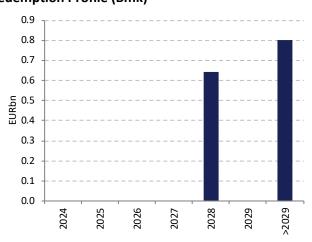
Regional Distribution



Spread Development



Redemption Profile (Bmk)





DZ HYP

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

DZ HYP AG

	Rating	Outlook
Fitch*	AA-	Stable
Moody's	Aa2	Stable
S&P	A+	Stable

Homepage

www.dzhyp.de

* Verbundrating

DZ HYP AG is a leading German real estate bank headquartered in Hamburg and Münster. It is a subsidiary of DZ BANK AG (which holds 96.4% of the shares; data as at FY 2022) and therefore forms part of the German Cooperative Financial Group. The remaining shares are held by the Westfälische Landschaft foundation (1.9%) and the Volksbanks/Raiffeisenbanks (1.7%). A control and profit transfer agreement is in place between DZ BANK AG and DZ HYP AG, while DZ BANK has issued a letter of comfort for DZ HYP as well. Moreover, DZ HYP makes use of the waiver regulation, according to which equity requirements can be managed at group level. In the German Cooperative Financial Group, DZ HYP acts as a specialist in the area of real estate and municipal financing. DZ HYP is active in the segments of Corporate Customers (combining commercial customers and the housing sector), Retail Customers (this essentially relates to the brokerage business through the Volksbanks and Raiffeisenbanks) and Public Sector Clients. At its two headquarters in addition to the real estate centres and regional offices, DZ HYP employed around 860 staff in 2022. The bank focuses on real estate financing on the German market and supports German customers in selected foreign markets. In terms of the breakdown by property type of the real estate loan portfolio, the main focus is on multiple family dwellings (FY 2022: 30%), with other notable shares accounted for by office (24%), residential (22%) and retail (14%). Long-term funding primarily consists of mortgage Pfandbriefe (FY 2022: 53%), followed by unsecured bonds (33%) and public-sector Pfandbriefe (15%). In 2022, DZ HYP issued an inaugural green mortgage Pfandbrief, which featured a volume of EUR 1.0bn.

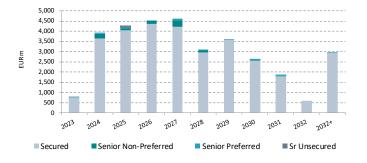
Income Statement

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	66,124	67,352	68,104
Total Securities	10,518	9,834	6,292
Total Deposits	15,770	13,814	12,425
Tier 1 Common Capital	1,588	1,669	1,820
Total Assets	81,920	81,631	77,224
Total Risk-weighted Assets	17,644	15,601	15,040

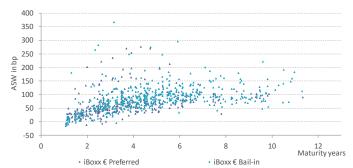
(EURm) 2020Y 2021Y 2022Y

602	665	669
-38	-38	-20
-	-	-
272	274	289
47	25	79
199	192	142
	-38 - 272 47	-38 -38 272 274 47 25

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.75	0.82	0.85	Liquidity Coverage Ratio	212.00	204.90	-
ROAE	-	-	-	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	45.53	41.91	42.36	NPL/Loans at Amortised Cost	0.23	0.21	0.17
Core Tier 1 Ratio	9.00	10.70	12.10	Reserves/Loans at Amort. Cost	0.41	0.44	0.54

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- **Group integration**
- Domestic market position
- Asset quality

- Diversification of business fields
- Commercial real estate (cyclical market)
- Dependency on wholesale funding



DZ HYP – Mortgage

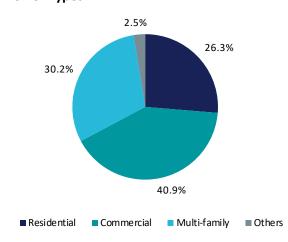
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany =

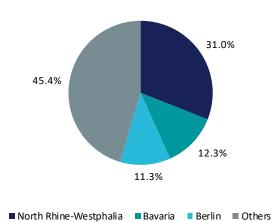
Cover Pool Data

Cover pool volume (EURm)	40,616	Rating (Moody's)	Aaa
Amount outstanding (EURm)	33,694	Rating (S&P)	AAA
-thereof ≥ EUR 500m	77.4%	Rating (Fitch)	-
Current OC (nominal)	20.5%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	6
Main country	97% Germany	Collateral score	13.7%
Main region	31% North Rhine-Westphalia	RRL	aa
Number of loans	112,615	JRL	aaa
Number of borrowers	158,204	Unused notches	4
Avg. exposure to borrowers (I	EUR) 250,212	AAA credit risk (%)	6.6%
WAL (cover pool)	6.5y	PCU	-
WAL (covered bonds)	6.0y	Recovery uplift	-
Fixed interest (cover pool)	90.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds) 99.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



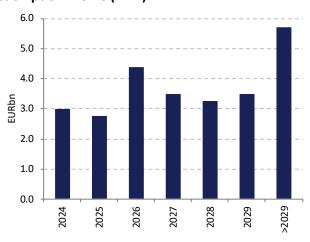
Regional Distribution



Spread Development



Redemption Profile (Bmk)





DZ HYP - Public Sector

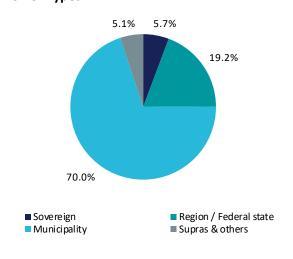
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany =

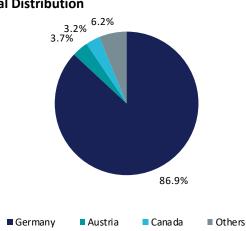
Cover Pool Data

Cover pool volume (EURm)	12,106	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,606	Rating (S&P)	AAA
-thereof ≥ EUR 500m	10.4%	Rating (Fitch)	-
Current OC (nominal)	26.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	6
Main country	87% Germany	Collateral score	2.5%
Main region	24% North Rhine-Westphalia	RRL	aa
Number of loans	16,420	JRL	aaa
Number of borrowers	4,890	Unused notches	4
Avg. exposure to borrowers (E	UR) 2,475,562	AAA credit risk (%)	-
WAL (cover pool)	7.8y	PCU	-
WAL (covered bonds)	7.3y	Recovery uplift	-
Fixed interest (cover pool)	98.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	94.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



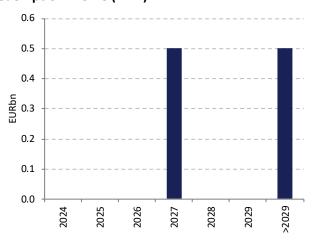
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Hamburg Commercial Bank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

	Rating	Outlook
Fitch	-	-
Moody's	А3	Stable
S&P	-	-

Homepage

www.hcob-bank.de

Hamburg Commercial Bank AG (HCOB), headquartered in Hamburg, is a private commercial bank and specialist financier. Up to February 2019, HCOB traded under the name HSH Hamburg Commercial Bank AG Nordbank AG. At the end of 2018, HSH was successfully privatised. The largest shareholders are Cerberus Capital Management (FY 2022: 42.41%) and J.C. Flowers & Co (34.93%). Since 1 January 2022, HCOB has been part of the Compensation Scheme of German Banks (Entschädigungseinrichtung deutscher Banken GmbH [EdB]) and is also voluntarily involved in the Deposit Protection Fund of the Association of German Banks e.V. (ESF). The business activities extend to real estate financing, international business customers, the corporate customer business in Germany as well as international project and ship financing. In addition to branches in major German cities, HCOB is also active abroad through branches in Athens and Luxembourg, as well as a representative office in London. Reporting is conducted across the segments of Real Estate, Shipping, Project Finance, Corporates and Treasury & Group Functions. In terms of the asset type, the real estate portfolio comprises Office Space (exposure at default: 42%), Retail Space (22%), Residential (14%), Hotels (8%) and Other (13%). The funding mix at HCOB consists of ship and mortgage Pfandbriefe, customer deposits and equity (69%; FY 2022), followed by unsecured bonds and public sector Pfandbriefe (23%) and TLTRO (5%). The bank is currently in the process of developing a Sustainable Finance Framework as well as segment-specific climate strategies. In addition, HCOB has set itself the goal of ensuring that more than 10% of its net new green business will be compliant with the EU taxonomy by 2025.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	21,909	19,752	19,178
Total Securities	7,113	5,271	5,779
Total Deposits	13,104	11,141	13,243
Tier 1 Common Capital	4,193	4,055	3,150
Total Assets	33,815	30,310	31,818

15,523

14,026

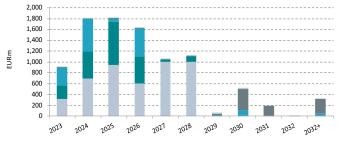
15,403

Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	629	526	627
Net Fee & Commission Inc.	48	38	33
Net Trading Income	-21	78	13
Operating Expense	397	360	362
Credit Commit. Impairment	189	-32	-11
Pre-tax Profit	257	299	363

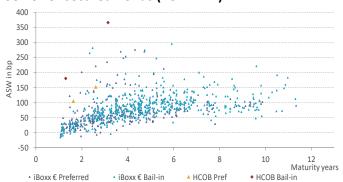
Redemption Profile

Total Risk-weighted Assets



Secured ■ Senior Preferred ■ Senior Non-Preferred ■ Subordinated Unsecured ■ Sr Unsecured

Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.60	1.70	2.08	Liquidity Coverage Ratio	169.67	160.38	166.49
ROAE	2.35	7.75	8.60	IFRS Tier 1 Leverage Ratio	12.89	13.65	9.97
Cost-to-Income	56.55	52.86	48.27	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	27.01	28.91	20.45	Reserves/Loans at Amort. Cost	2.70	2.35	2.21

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- **Profitability**
- Liquidity buffer

- Credit risk concentration
- Niche business model
- Dependency on capital market funding



Hamburg Commercial Bank - Mortgage

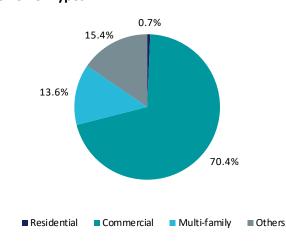
Germany



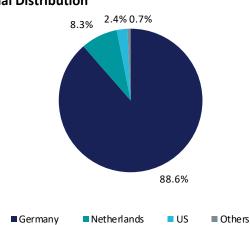
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover pool volume (EURm)	3,844	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,081	Rating (S&P)	-
-thereof ≥ EUR 500m	81.2%	Rating (Fitch)	-
Current OC (nominal)	24.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	2
Main country	89% Germany	Collateral score	21.6%
Main region	17% Hesse	RRL	-
Number of loans	341	JRL	-
Number of borrowers	216	Unused notches	-
Avg. exposure to borrowers (EUR)	15,057,233	AAA credit risk (%)	-
WAL (cover pool)	5.9y	PCU	-
WAL (covered bonds)	3.4y	Recovery uplift	-
Fixed interest (cover pool)	57.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	57.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



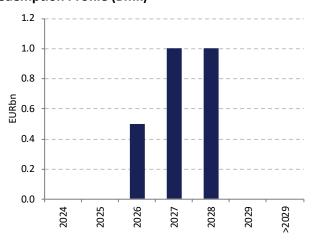
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Hamburg Commercial Bank - Ship

Germany

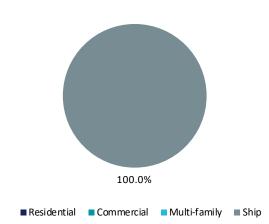


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

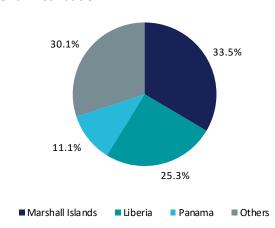
Cov	/er	Poo	Data

Cover pool volume (EURm)	2,295	Rating (Moody's)	Aa3
Amount outstanding (EURm)	1,800	Rating (S&P)	-
-thereof ≥ EUR 500m	27.8%	Rating (Fitch)	-
Current OC (nominal)	27.5%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Improbable
Cover type	Ship	TPI leeway	2
Main country	34% Marshall Islands	Collateral score	65.0%
Main region	n/a	RRL	-
Number of loans	230	JRL	-
Number of borrowers	103	Unused notches	-
Avg. exposure to borrowers (EUR)	0	AAA credit risk (%)	-
WAL (cover pool)	5.3y	PCU	-
WAL (covered bonds)	1.5y	Recovery uplift	-
Fixed interest (cover pool)	16.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	41.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

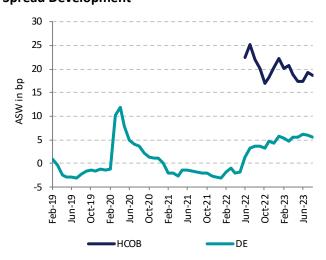
Borrower Types



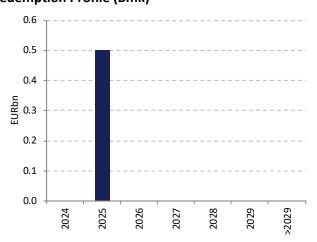
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Hamburger Sparkasse

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Hamburger Sparkasse AG

ng Outlook
+ Stable
3 Stable
-

Homepage

www.haspa.de

Hamburger Sparkasse AG (Haspa) is the largest German savings bank as measured by assets. According to information from the bank itself, Haspa is the leading bank for retail customers and SMEs in the Hamburg metropolitan region with a total lending volume of EUR 38bn. HASPA Finanzholding holds 100% of the shares in Haspa, with the articles of association obliging the bank to perform the role of a savings bank. The bank is active in the fields of retail customers, corporate customers and private banking, offering its customers a range of products and services in areas such as payment transactions, lending, building society products and asset management, in addition to syndicated loans. It is one of the few independent savings banks in Germany, and is a member of both the Hanseatic Savings Bank and Clearing House Association (HSGV) and the Association of Independent Savings Banks, which is based in Frankfurt am Main. Its membership of the HSGV means Haspa is part of the Association of German Savings Banks (DSGV). Haspa is therefore a member of the Sparkassen financial group and fully integrated in the comprehensive protection system of German savings banks. Haspa employs around 3,900 staff, who serve customers at approximately 100 branches as well as via telephone and online banking platforms. Revenue growth and cost-cutting measures are the focus of the future strategy "Haspa Spring - Sparkasse richtig neu gedacht", which should be achieved on the back of digitalisation and streamlined processes in addition to a socially acceptable level of redundancies. In addition to customer deposits, Pfandbriefe form a key pillar of the refinancing structure at HASPA. As part of the "Haspa Sustainability Programme", the bank has set itself the goal of achieving carbonneutrality for its business operations by 2025.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	35,797	37,235	38,074
Total Securities	6,932	8,758	10,488
Total Deposits	36,741	37,279	39,132
Tier 1 Common Capital	3,515	3,523	-
Total Assets	55,157	59,931	57,006
Total Risk-weighted Assets	26,362	27,328	-

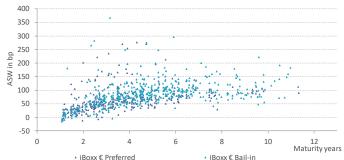
Income Statement

(EURm)	2020Y	2021Y	2022Y			
Net Interest Income	567	666	673			
Net Fee & Commission Inc.	316	347	359			
Net Trading Income	-0	3	-1			
Operating Expense	817	879	845			
Credit Commit. Impairment	61	40	78			
Pre-tax Profit	45	116	145			

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.12	1.17	1.16	Liquidity Coverage Ratio	182.15	193.74	196.00
ROAE	-	-	-	IFRS Tier 1 Leverage Ratio	6.38	5.88	-
Cost-to-Income	89.91	83.37	77.89	NPL/Loans at Amortised Cost	0.18	-	-
Core Tier 1 Ratio	13.34	12.89	12.90	Reserves/Loans at Amort. Cost	0.33	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Asset quality
- Funding profile

- Regional credit risk concentration
- Profitability
- Credit risk concentration risk in the CRE sector



Hamburger Sparkasse – Mortgage

Germany

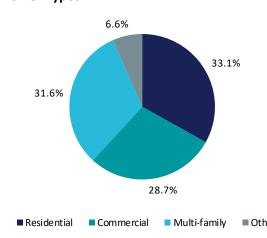


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

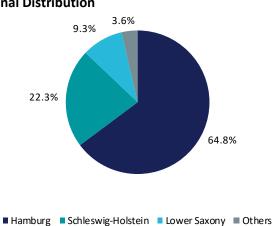
Cov	/er	Poo	Data

Cover pool volume (EURm)	8,244	Rating (Moody's)	Aaa
Amount outstanding (EURm)	6,548	Rating (S&P)	-
-thereof ≥ EUR 500m	30.5%	Rating (Fitch)	-
Current OC (nominal)	25.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	7
Main country	100% Germany	Collateral score	9.9%
Main region	65% Hamburg	RRL	-
Number of loans	5,123	JRL	-
Number of borrowers	3,318	Unused notches	-
Avg. exposure to borrowers (EUR)	2,318,089	AAA credit risk (%)	-
WAL (cover pool)	6.3y	PCU	-
WAL (covered bonds)	3.9y	Recovery uplift	-
Fixed interest (cover pool)	85.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	98.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	52.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

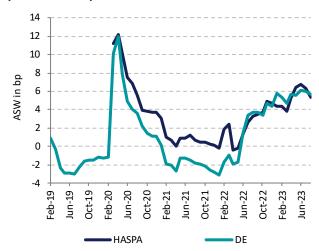
Borrower Types



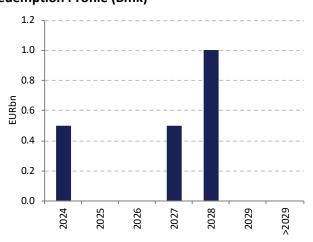
Regional Distribution



Spread Development



Redemption Profile (Bmk)





ING-DiBa

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ING-DiBa AG

	Rating	Outlook
Fitch	-	-
Moody's	A2	Stable
S&P	-	-

Homepage

www.ing.de

Headquartered in Frankfurt, ING-DiBa AG is a universal bank and one of the largest direct banks for retail customers in Germany. ING Deutschland GmbH is the parent company of ING-DiBa and Interhyp AG. The holding company ING Holding Deutschland GmbH, which in turn is the parent company of ING Deutschland GmbH, is wholly owned by ING Bank N.V. In addition to head offices in Hanover, Nuremberg and Berlin, ING-DiBa also has branches in other major German cities. The focus is on the direct banking business with retail customers and financing solutions for corporate customers. Interhyp AG brokers loans in the area of private construction financing. The bank reports across the Retail Banking and Wholesale Banking segments. The former includes investments and credit transactions for retail customers as well as lending to self-employed people and SMEs. The core products here include current accounts, home loans, consumer loans and securities. For its part, the Wholesale Banking segment at ING-DiBa serves global companies and public sector clients. After the sale of the Austrian retail business in 2021, ING-DiBa sold off its corporate customer business in Austria to ING Bank N.V. in August 2022. Refinancing activities are mainly based on deposits (70% of total assets), supplemented by central bank funding, Pfandbriefe and wholesale deposits. As part of its sustainability strategy and the Green Bond Framework, ING-DiBa issued its second green Pfandbrief in September 2022. Moreover, the group (ING Group) is a member of the Net-Zero Banking Alliance.

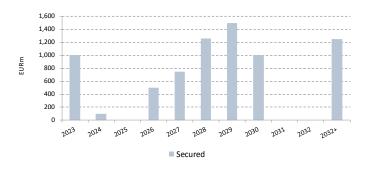
Balance Sheet (ING Holding Deutschland GmbH)

(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	122,608	127,476	126,012
Total Securities	32,944	26,421	42,151
Total Deposits	145,608	136,005	138,895
Tier 1 Common Capital	8,134	7,629	-
Total Assets	190,070	181,897	198,189
Total Risk-weighted Assets	48,675	45,579	-

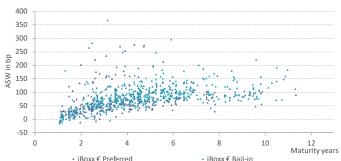
Income Statement (ING Holding Deutschland GmbH)

•	-		•
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	2,041	1,965	2,245
Net Fee & Commission Inc.	479	543	496
Net Trading Income	39	107	75
Operating Expense	1,301	1,348	1,341
Credit Commit. Impairment	t -	-	-
Pre-tax Profit	1,042	1,169	1,040

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios (ING Holding Deutschland GmbH)

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.12	1.06	1.19	Liquidity Coverage Ratio	226.41	227.71	-
ROAE	7.72	8.60	7.67	IFRS Tier 1 Leverage Ratio	4.43	4.30	-
Cost-to-Income	49.88	51.27	47.20	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	16.71	16.74	-	Reserves/Loans at Amort. Cost	0.44	0.44	0.67

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Profitability
- Deposit basis
- Capitalisation

- Loan portfolio concentration (real estate)
- ING Group N.V. ratings impair own rating
- Leverage



ING-DiBa – Mortgage

Germany



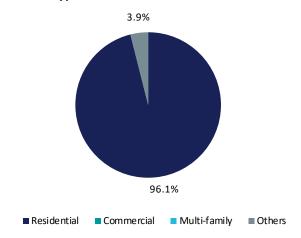
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

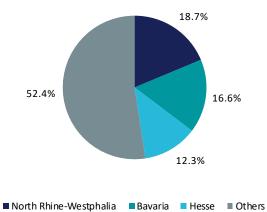
Cover Pool Data

Cover pool volume (EURm)	13,295	Rating (Moody's)	Aaa
Amount outstanding (EURm)	7,355	Rating (S&P)	-
-thereof ≥ EUR 500m	85.0%	Rating (Fitch)	-
Current OC (nominal)	80.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	100% Germany	Collateral score	5.0%
Main region	19% North Rhine-Westphalia	RRL	-
Number of loans	97,007	JRL	-
Number of borrowers	95,389	Unused notches	-
Avg. exposure to borrowers (E	UR) 133,941	AAA credit risk (%)	-
WAL (cover pool)	8.7y	PCU	-
WAL (covered bonds)	6.0y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.3%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

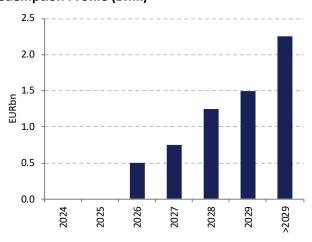




Spread Development

ASW in bp Reb-19 Reb-20 Jun-22 Jun-22 Jun-22 Gott-23 Feb-23 Feb-23 Jun-22 Feb-23 Feb-23

Redemption Profile (Bmk)





Kreissparkasse Köln

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Kreissparkasse Köln

	Rating	Outlook
Fitch*	A+	Stable
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.ksk-koeln.de

* Verbundrating

Kreissparkasse Köln (KSK) is a universal bank that operates in the legal form of a public law institution (Anstalt des öffentlichen Rechts). KSK is owned by the special purpose association for regional savings banks in Cologne, covering the Rhein-Erft, Rhein-Sieg, Rheinisch-Bergische and Oberbergischer districts. KSK is a member of the protection system of the Sparkassen financial group in Germany. As a universal bank, KSK's workforce of approximately 3,100 employees serves around one million customers in the Cologne region (data as at: FY 2022). A total of 43 cities and municipalities in the area around Cologne form the focus of KSK's operations. KSK business activities are supported by a customer base that covers a broad section of the economy and population, whereby the focus is on retail customers and SMEs. The bank's loan portfolio can be broken down by customer segment: Companies and Self-Employed Individuals (FY 2022: 51%), Private Individuals (42%), public authorities (5%) and other borrowers (2%). In accordance with the principle of "quality before growth", KSK is aiming for moderate growth in the retail and corporate client markets. Financing commercial and private construction ventures forms the core business of the bank. Moreover, KSK works closely with the local communities in order to fulfil its public mandate. In terms of refinancing activities, the focus is essentially on customer deposits (around 80% of total assets), while KSK issues mortgage Pfandbriefe and unsecured bank bonds, among other instruments, on the capital market. In 2020, KSK signed the Voluntary Commitment of German Savings Banks to climate friendly and sustainable business operations.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	21,521	21,992	22,808
Total Securities	2,484	2,401	2,185
Total Deposits	21,794	22,226	22,542
Tier 1 Common Capital	2,095	2,143	-
Total Assets	28,604	28,975	29,831
Total Risk-weighted Assets	14,259	14,567	-

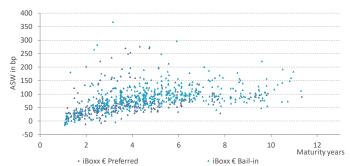
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	376	314	491
Net Fee & Commission Inc.	163	174	182
Net Trading Income	4	5	-
Operating Expense	460	453	457
Credit Commit. Impairment	28	-6	96
Pre-tax Profit	53	46	122

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.39	1.12	1.72	Liquidity Coverage Ratio	-	166.40	-
ROAE	0.44	0.72	1.82	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	78.34	85.09	63.70	NPL/Loans at Amortised Cost	0.40	-	-
Core Tier 1 Ratio	14.69	14.71	_	Reserves/Loans at Amort, Cost	0.49	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Funding profile
- Asset quality

- Profitability
- Concentration risks in the CRE sector
- Geographical concentration



Kreissparkasse Köln – Mortgage

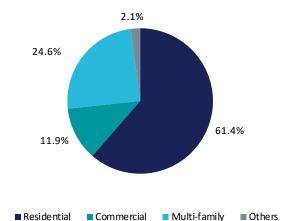
Germany



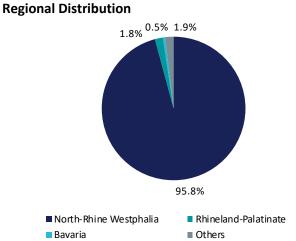
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover pool volume (EURm)	6,465	Rating (Moody's)	Aaa
Amount outstanding (EURm)	868	Rating (S&P)	-
-thereof ≥ EUR 250m	28.8%	Rating (Fitch)	-
Current OC (nominal)	645.2%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	7
Main country	100% Germany	Collateral score	5.8%
Main region	96% North-Rhine Westphalia	RRL	-
Number of loans	46,508	JRL	-
Number of borrowers	37,296	Unused notches	-
Avg. exposure to borrowers (E	EUR) 169,525	AAA credit risk (%)	-
WAL (cover pool)	5.8y	PCU	-
WAL (covered bonds)	2.4y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds) 100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	53.4%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types



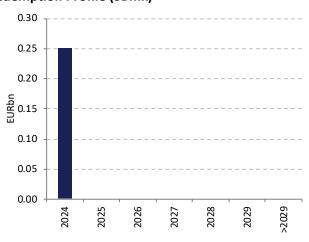




Spread Development



Redemption Profile (SBmk)





Landesbank Baden-Württemberg

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Landesbank Baden-Württemberg

	Rating	Outlook
Fitch	A-	Stable
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.lbbw.de

Landesbank Baden-Württemberg (LBBW) is an independent public law institution and universal bank. It is the parent company of the LBBW Group and operates out of four head offices (Stuttgart, Karlsruhe, Mannheim and Mainz). Its shareholders (FY 2022) are the Sparkassenverband Baden-Württemberg (40.53% of the share capital), the city of Stuttgart (18.93%) and the federal state of Baden-Württemberg (40.53%). Baden-Württemberg (BW) holds its shares both directly and indirectly via the Landesbeteiligungen Baden-Württemberg GmbH. In 2022, the LBBW Group acquired Berlin Hyp as a wholly owned subsidiary. The LBBW Group has around 10,000 employees, who offer the retail and corporate customers the type of comprehensive product and service portfolio that is typical of a universal bank. The range of products is supplemented by subsidiaries that operate in areas such as leasing, factoring, asset management and real estate. The focus of LBBW's activities is on the core markets of BW, Rhineland-Palatinate and Saxony. Moreover, the bank operates is selected international markets. LBBW also performs the role of savings bank central bank for savings banks in its core markets. In Baden-Württemberg, LBBW operates the BW-Bank brand for retail and medium-sized corporate customers, with asset management services also offered. The bank additionally offers sustainable financing products for retail and corporate customers. The operating business segments are Real Estate/Project Financing, Corporate Clients, Capital Market Business and Retail stomers/Savings Banks. Since as early as 2017, LBBW has had a Green Bond Framework in place, which was adapted in line with the EU Taxonomy in 2022.

Income Statement

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	113,561	125,141	151,746
Total Securities	74,642	68,059	73,216
Total Deposits	95,288	97,022	115,748
Tier 1 Common Capital	12,415	12,473	13,528
Total Assets	276,444	282,344	324,174
Total Risk-weighted Assets	82,112	84,416	93,157

(EURm) 2020Y 2021Y 2022Y Net Interest Income 1,771 2,031 2,305 Net Fee & Commission Inc. 538 598 628 Net Trading Income 179 252 343

 Net Fee & Commission Inc.
 538
 598
 628

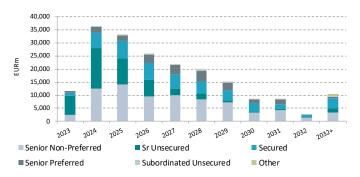
 Net Trading Income
 179
 252
 343

 Operating Expense
 1,893
 1,940
 2,175

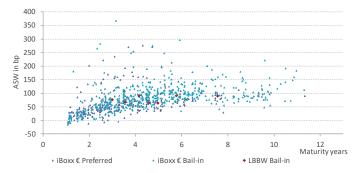
 Credit Commit. Impairment
 544
 240
 239

 Pre-tax Profit
 252
 817
 1,873

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.68	0.74	0.78	Liquidity Coverage Ratio	142.04	139.87	128.66
ROAE	1.24	2.97	10.19	IFRS Tier 1 Leverage Ratio	4.89	4.69	4.43
Cost-to-Income	70.16	64.37	64.14	NPL/Loans at Amortised Cost	0.86	0.84	0.79
Core Tier 1 Ratio	15.12	14.78	14.52	Reserves/Loans at Amort. Cost	0.99	1.06	0.92

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- NPL ratio
- Refinancing options via the savings bank sector

- Credit risk concentration in cyclical sectors
- Profitability
- Dependency on wholesale funding



LBBW - Mortgage

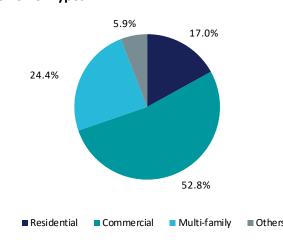
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany

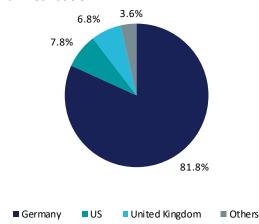
Cover Pool Data

Cover pool volume (EURm)	18,636	Rating (Moody's)	Aaa
Amount outstanding (EURm)	12,461	Rating (S&P)	-
-thereof ≥ EUR 500m	62.2%	Rating (Fitch)	-
Current OC (nominal)	49.6%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	82% Germany	Collateral score	10.6%
Main region	32% Baden-Wuerttemberg	RRL	-
Number of loans	33,966	JRL	-
Number of borrowers	26,160	Unused notches	-
Avg. exposure to borrowers (EU	R) 670,360	AAA credit risk (%)	-
WAL (cover pool)	4.8y	PCU	-
WAL (covered bonds)	3.8y	Recovery uplift	-
Fixed interest (cover pool)	79.9%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	72.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	55.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

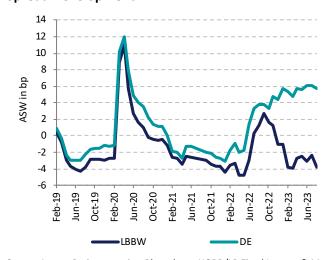
Borrower Types



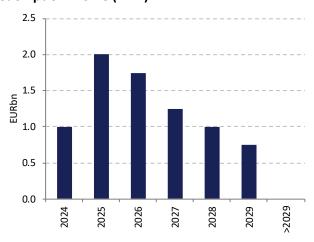
Regional Distribution



Spread Development



Redemption Profile (Bmk)





LBBW - Public Sector

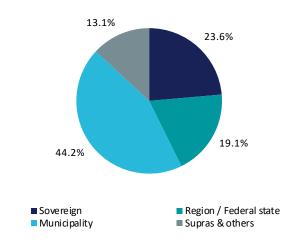
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Germany •

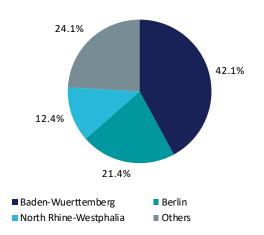
Cover Pool Data

Cover pool volume (EURm)	13,071	Rating (Moody's)	Aaa
Amount outstanding (EURm)	10,292	Rating (S&P)	-
-thereof ≥ EUR 500m	54.4%	Rating (Fitch)	-
Current OC (nominal)	27.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	5
Main country	93% Germany	Collateral score	3.5%
Main region	42% Baden-Wuerttemberg	RRL	-
Number of loans	7,180	JRL	-
Number of borrowers	2,828	Unused notches	-
Avg. exposure to borrowers (EUF	R) 4,621,885	AAA credit risk (%)	-
WAL (cover pool)	6.3y	PCU	-
WAL (covered bonds)	4.7y	Recovery uplift	-
Fixed interest (cover pool)	73.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	80.5%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

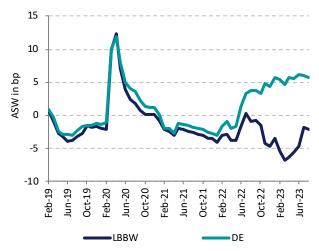
Borrower Types



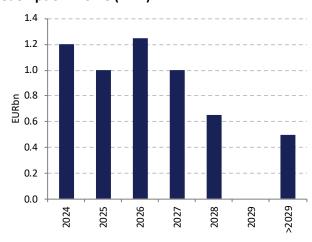
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Landesbank Berlin

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Landesbank Berlin AG

	Rating	Outlook
Fitch	-	-
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.lbb.de

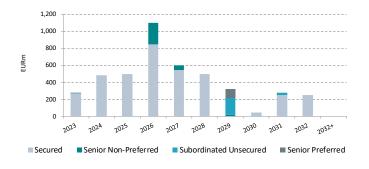
Landesbank Berlin AG (LBB) is a non-listed joint stock company and owner of Berliner Sparkasse (BSK). In accordance with the Berlin Sparkassen Act, LBB is classified as a savings bank association in its own right and is therefore a member of the German Savings Banks Association (DSGV). As a member of the Sparkassen financial group, LBB benefits from the deposit and institute-related protection system. LBB and BSK (representative branch of LBB pursuant to German commercial law) is a wholly owned subsidiary of Landesbank Berlin Holding AG (LBBH), which indirectly places it under the ownership of the acquisition company affiliated with S-Finanzgruppe mbH & Co. KG. This company holds a direct stake of 89.37% in LBBH (FY 2022) and also functions as a general partner in the investment company of S-Finanzgruppe mbH & Co. KG (10.63% stake in LBBH). LBB/BSK divides its business into the following segments: Retail Customers, Direct Banking Service, Corporate Customers, Property Financing, Private Banking, Treasury and Business Clients. With the exception of Treasury and credit card business, all business segments are operated under the Berliner Sparkasse brand. In Berlin, LBB/BSK serves around 1.7m customers at 102 locations and boasts high regional market shares for both retail and corporate customers (FY 2022). In July 2022, Landesbank Baden-Württemberg acquired Berlin Hyp, a subsidiary of LBBH. As part of the future programme "Z25!", the core business of the bank is set to be strengthened, while at the same time costs are to be scaled back and revenues increased in the customer business. The aim of the restructuring is to transform LBB into a traditional savings bank. Refinancing activities are mainly focused on retail customer deposits (FY 2022: 77%), followed by Pfandbriefe (9%).

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	25,787	27,381	29,223
Total Securities	9,546	8,264	8,059
Total Deposits	30,964	34,395	35,144
Tier 1 Common Capital	2,385	2,570	2,623
Total Assets	49,145	52,484	48,777
Total Risk-weighted Assets	14,350	13,840	13,829

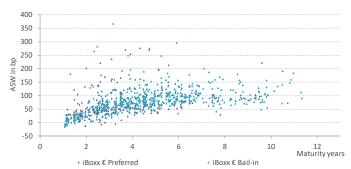
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	766	771	816
Net Fee & Commission Inc.	233	248	274
Net Trading Income	-	-	-
Operating Expense	925	958	841
Credit Commit. Impairment	124	-104	112
Pre-tax Profit	40	41	131

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.78	1.57	1.66	Liquidity Coverage Ratio	175.78	210.03	183.58
ROAE	-	-	-	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	87.10	86.67	72.18	NPL/Loans at Amortised Cost	0.36	-	-
Core Tier 1 Ratio	16.62	18.57	18.97	Reserves/Loans at Amort. Cost	1.94	1.28	1.41

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Capitalisation
- Asset quality
- Deposit basis

- Geographical concentration in Berlin-Brandenburg
- Exposure in the CRE segment
- Profitability



Landesbank Berlin – Mortgage

Germany

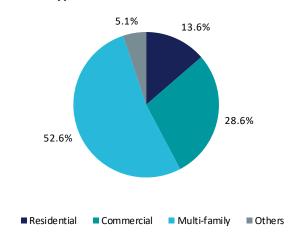


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

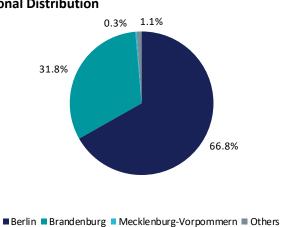
Cov	/er	Poo	Data

5,935	Rating (Moody's)	Aaa
3,801	Rating (S&P)	-
55.2%	Rating (Fitch)	-
56.1%	Rating (DBRS)	-
2.0%	TPI	High
Mortgage	TPI leeway	7
100% Germany	Collateral score	14.9%
67% Berlin	RRL	-
8,141	JRL	-
7,314	Unused notches	-
770,036	AAA credit risk (%)	-
11.0y	PCU	-
4.3y	Recovery uplift	-
90.0%	Outstanding ESG BMKs	No
97.0%	LCR eligible	Yes
-	LCR level (SBmk)	2A
55.0%	Risk weight	10%
0.0%	Maturity structure (SBmk)	SB
	3,801 55.2% 56.1% 2.0% Mortgage 100% Germany 67% Berlin 8,141 7,314 770,036 11.0y 4.3y 90.0% 97.0%	3,801 Rating (S&P) 55.2% Rating (Fitch) 56.1% Rating (DBRS) 2.0% TPI Mortgage TPI leeway 100% Germany Collateral score 67% Berlin RRL 8,141 JRL 7,314 Unused notches 770,036 AAA credit risk (%) 11.0y PCU 4.3y Recovery uplift 90.0% Outstanding ESG BMKs 97.0% LCR eligible - LCR level (SBmk) 55.0% Risk weight

Borrower Types



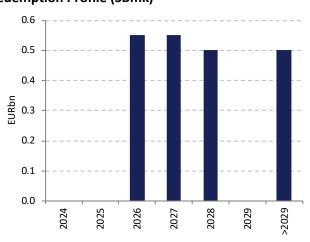
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Landesbank Hessen-Thüringen

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Landesbank Hessen-Thüringen Girozentrale

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa3	Stable
S&P	-	-

Homepage

www.helaba.com

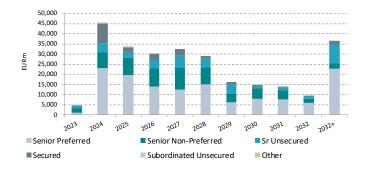
Landesbank Hessen-Thüringen Girozentrale (Helaba) is a bank that operates under the legal form of a public law institute. The majority shareholder (88% as at FY 2022) is the savings bank sector, followed by the federal states of Hesse and Thuringia (12% on joint basis). In addition to Helaba, the Helaba Group consists of its wholly owned subsidiaries Frankfurter Sparkasse, Helaba Invest and WIBank. Helaba is part of the Sparkasse financial group and its institutional protection system. The institute operates as a savings bank central bank and associate bank for the savings banks in Hesse, Thuringia, North Rhine-Westphalia and Brandenburg. Helaba is a universal bank with a strong regional focus that operates selectively on international markets. It bundles the central promotional business in Hesse and the management of the promotional programmes via the Wirtschafts- und Infrastrukturbank Hessen (WIBank). Reporting takes place across four operating segments: Real Estate, Corporate & Markets, Retail & Asset Management and WIBank. The loan portfolio of Helaba mainly consists of the following customer groups: Public Sector (FY 2022: 31%), Corporates (26%), Commercial Real Estate (19%) and Financial Institutions (15%). Geographically, 69% of the portfolio is attributable to Germany. Medium and long-term financing consisted of SSDs (FY 2022: 39%) and senior unsecured bonds (26%), while 23% was attributable to Pfandbriefe. In 2022, the bank published a sustainable lending framework, the aim of which is to establish a consistent definition of and measurement principles for sustainable lending. Helaba has also signed up to the Commitment of German Savings Banks to Climate-Friendly and Sustainable Business Operations.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	119,273	119,036	120,357
Total Securities	49,801	36,615	30,777
Total Deposits	72,467	72,199	68,550
Tier 1 Common Capital	8,882	9,157	8,786
Total Assets	219,324	212,341	211,502
Total Risk-weighted Assets	60,542	63,881	64,874

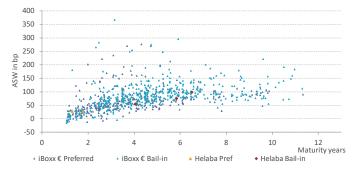
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	1,172	1,326	1,417
Net Fee & Commission Inc.	435	485	533
Net Trading Income	13	183	131
Operating Expense	1,468	1,515	1,652
Credit Commit. Impairment	304	208	163
Dro-tay Profit	222	560	622

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.56	0.63	0.69	Liquidity Coverage Ratio	186.24	185.91	175.30
ROAE	2.02	5.55	4.51	IFRS Tier 1 Leverage Ratio	4.49	4.65	4.44
Cost-to-Income	76.30	64.99	66.88	NPL/Loans at Amortised Cost	0.64	0.99	0.82
Core Tier 1 Ratio	14.67	14.33	13.54	Reserves/Loans at Amort. Cost	0.48	0.62	0.72

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Part of the Sparkassen financial group
- Capitalisation
- Refinancing via the savings banks

- Risk concentration
- Profitability
- Dependency on wholesale funding



Landesbank Hessen-Thüringen – Mortgage

Germany

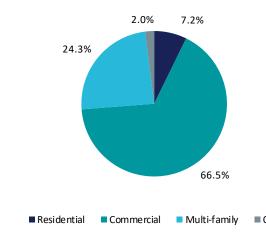


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

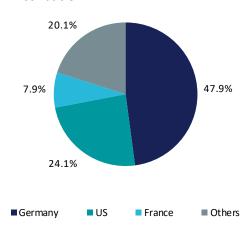
Cover	Pool	l Data
COVEL	POO	ı vata

Cover Pool Data			
Cover pool volume (EURm)	16,624	Rating (Moody's)	Aaa
Amount outstanding (EURm)	10,608	Rating (S&P)	-
-thereof ≥ EUR 500m	63.6%	Rating (Fitch)	-
Current OC (nominal)	56.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	48% Germany	Collateral score	12.4%
Main region	29% Hesse	RRL	-
Number of loans	10,420	JRL	-
Number of borrowers	9,164	Unused notches	-
Avg. exposure to borrowers (EUR)	1,777,774	AAA credit risk (%)	-
WAL (cover pool)	3.4y	PCU	-
WAL (covered bonds)	2.0y	Recovery uplift	-
Fixed interest (cover pool)	70.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	67.6%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	58.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

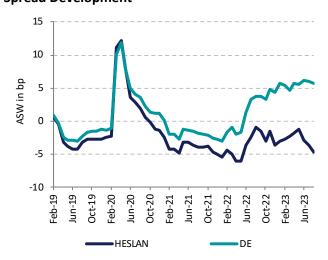
Borrower Types



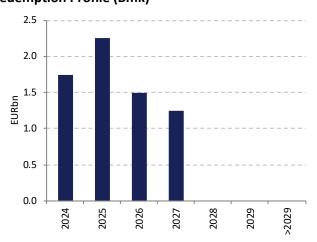
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Landesbank Hessen-Thüringen – Public Sector

Germany

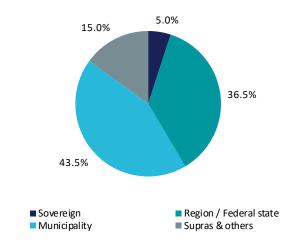


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

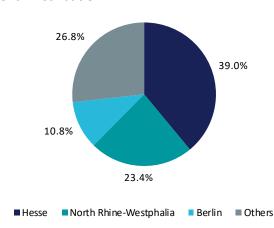
Cover Pool Data

Cover pool volume (EURm)	32,850	Rating (Moody's)	Aaa
Amount outstanding (EURm)	22,081	Rating (S&P)	-
-thereof ≥ EUR 500m	24.9%	Rating (Fitch)	AAA
Current OC (nominal)	48.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	5
Main country	94% Germany	Collateral score	3.1%
Main region	39% Hesse	RRL	-
Number of loans	19,539	JRL	-
Number of borrowers	4,742	Unused notches	-
Avg. exposure to borrowers (EUR)	6,865,047	AAA credit risk (%)	-
WAL (cover pool)	7.8y	PCU	6
WAL (covered bonds)	5.9y	Recovery uplift	2
Fixed interest (cover pool)	93.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	70.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

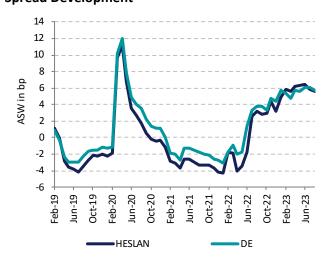
Borrower Types



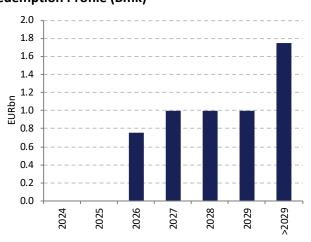
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Landesbank Saar

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Landesbank Saar

	Rating	Outlook
Fitch	A-	Stable
Moody's	A1	Stable
S&P	-	-

Homepage

www.saarlb.de

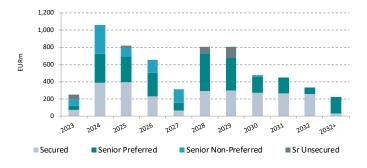
Landesbank Saar (SaarLB) is an independent public law institution headquartered in Saarbrücken. The federal state of Saarland is the main shareholder in the bank with a stake of 74.9% (FY 2022), followed by the Sparkassenverband Saar (25.1%). Geographically speaking, the activities of SaarLB are concentrated in the French region of Grand Est and neighbouring regions in France, in addition to Saarland and adjacent regions in Germany. The bank also supports cross-border investments via the digital forum Pole Franco-Allemand. The institute operates a branch in Strasbourg (SaarLB France) and a sales office in Paris. With a workforce comprising around 500 employees, SaarLB focuses on SME customers, property investors, project financiers, high net worth retail customers and institutional customers. SaarLB divides its business into the following segments: Corporate Customers, Real Estate, Project Financing, Municipal Customers Germany, LBS Landesbausparkasse Saar and Treasury & Syndication. As part of its own funding strategy, SaarLB focuses on Pfandbrief issuances for long-term refinancing and supplements these through unsecured bond deals. In the short term, funding is secured via customer deposits, refinancing via the banking market and open market transactions with the ECB. SaarLB has a framework for the issuance of green and social bonds, which is aligned with its aim to finance projects in the areas of renewable energies and infrastructure, as well as to provide basic social services. SaarLB issued inaugural bonds under both programmes in 2022.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	12,116	12,574	13,313
Total Securities	1,030	1,068	1,180
Total Deposits	6,085	6,241	6,817
Tier 1 Common Capital	752	763	786
Total Assets	15,157	16,163	17,467
Total Risk-weighted Assets	5,739	5,798	5,891

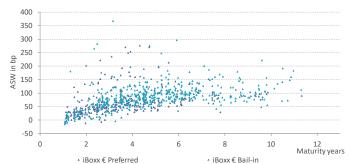
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	133	136	143
Net Fee & Commission Inc.	7	7	9
Net Trading Income	1	0	0
Operating Expense	85	88	94
Credit Commit. Impairment	25	14	14
Pre-tax Profit	37	45	47

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.90	0.88	0.86	Liquidity Coverage Ratio	218.42	199.76	191.08
ROAE	2.28	3.83	3.96	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	58.80	59.07	59.57	NPL/Loans at Amortised Cost	1.61	-	-
Core Tier 1 Ratio	13.11	13.15	13.35	Reserves/Loans at Amort, Cost	0.57	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Member of the Sparkassen financial group
- Capitalisation
- Liquidity

- Credit risk concentration (CRE, SME)
- Profitability
- Risks from project financing

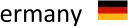


Landesbank Saar - Public Sector

2.0% 6.9%

9.1%

Germany

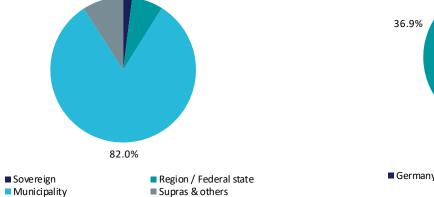


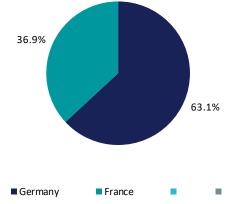
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	4,454	Rating (Moody's)	-
Amount outstanding (EURm)	3,289	Rating (S&P)	-
-thereof ≥ EUR 250m	38.0%	Rating (Fitch)	AAA
Current OC (nominal)	35.4%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Public Sector	TPI leeway	-
Main country	63% Germany	Collateral score	-
Main region	45% Saarland	RRL	-
Number of loans	1,476	JRL	-
Number of borrowers	492	Unused notches	-
Avg. exposure to borrowers (EUR)	9,051,890	AAA credit risk (%)	-
WAL (cover pool)	8.8y	PCU	6
WAL (covered bonds)	7.7y	Recovery uplift	2
Fixed interest (cover pool)	77.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	98.5%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types



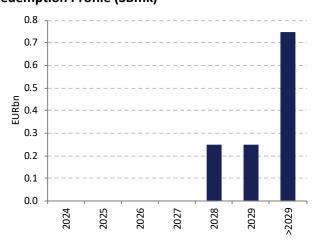


Spread Development

14 12 10 ASW in bp 6 4 2 0 -2 Feb-19 Feb-20 Jun-20 Feb-21 SAARLB

Redemption Profile (SBmk)

Regional Distribution





Münchener Hypothekenbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Münchener

Hypothekenbank eG

	Rating	Outlook
Fitch*	AA-	Stable
Moody's	Aa3	Stable
S&P*	A+	Stable

Homepage

www.muenchenerhyp.de

* Verbundrating

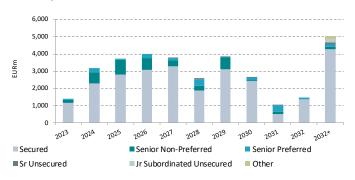
Münchener Hypothekenbank eG (MünchenerHyp) is a bank that specialises in financing residential and commercial real estate. It is also part of the cooperative FinanzGruppe, which consists of over 730 banks and other affiliated companies. MünchenerHyp is therefore a member of the deposit protection system and the voluntary institutional protection system. A total of 70.3% of the shareholders in MünchenerHyp are primary banks, followed by private individuals (25.9%) and other FinanzGruppe companies (3.8%). As at FY 2022, the bank employs approximately 630 staff at 12 locations in Germany and has around 60,000 members. Mortgage loans for residential and commercial properties as well as the issuance of mortgage Pfandbriefe constitute the core business areas. A total of 80% of the mortgage portfolio is attributable to Germany (H1/2023), with foreign business accounting for a share of 20%. This includes Switzerland with 11% and other countries with 9%. Within Germany, the majority of the mortgage portfolio is attributable to the following federal states: Bavaria, Baden-Württemberg, Hesse and North Rhine-Westphalia. In November 2022, the Bank signed an agreement to acquire M.M.Warburg & CO Hypothekenbank AG, which was merged into Münchener Hyp in the first half of 2023. Mortgage Pfandbriefe and unsecured bonds in EUR and CHF form the focus of refinancing activities at MünchenerHyp. The bank also sources funding via the money markets and customer deposits. MünchenerHyp offers its customers green loans for energy efficient residential and commercial properties. Based on its Green Bond Framework, MünchenerHyp is a regular issuer of green bonds in various asset classes.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	43,046	45,436	47,031
Total Securities	6,861	4,968	3,929
Total Deposits	14,867	15,646	17,342
Tier 1 Common Capital	1,626	1,690	1,738
Total Assets	52,538	52,406	53,209
Total Risk-weighted Assets	7,975	8,916	9,820

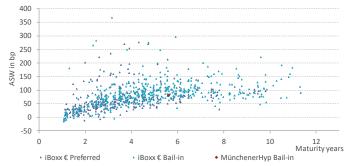
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	403	432	241
Net Fee & Commission Inc.	-130	-110	-33
Net Trading Income	-	-	-
Operating Expense	139	151	86
Credit Commit. Impairment	27	45	50
Pre-tax Profit	113	132	94

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.80	0.83	0.92	Liquidity Coverage Ratio	349.00	399.33	-
ROAE	3.49	3.89	5.90	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	50.51	46.79	40.77	NPL/Loans at Amortised Cost	0.52	0.50	-
Core Tier 1 Ratio	20.39	18.96	17.70	Reserves/Loans at Amort. Cost	0.13	0.22	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 25.08.2023

Strengths / Opportunities

- Capitalisation
- Loan quality
- Likelihood of support from FinanzGruppe

- Cyclical nature of commercial property markets
- Profitability
- Dependency on wholesale funding



Münchener Hypothekenbank – Mortgage

Germany

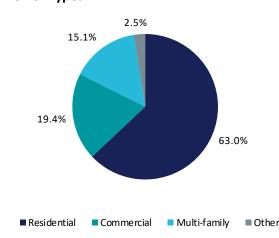


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

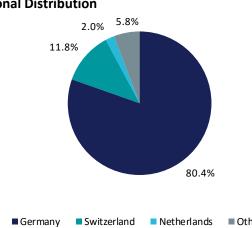
Cover Pool Data

Cover pool volume (EURm)	36,474	Rating (Moody's)	Aaa
Amount outstanding (EURm)	33,461	Rating (S&P)	-
-thereof ≥ EUR 500m	43.1%	Rating (Fitch)	-
Current OC (nominal)	9.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	80% Germany	Collateral score	8.5%
Main region	28% Bavaria	RRL	-
Number of loans	202,975	JRL	-
Number of borrowers	178,403	Unused notches	-
Avg. exposure to borrowers (EUR)	199,338	AAA credit risk (%)	-
WAL (cover pool)	8.4y	PCU	-
WAL (covered bonds)	8.7y	Recovery uplift	-
Fixed interest (cover pool)	96.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	97.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	53.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



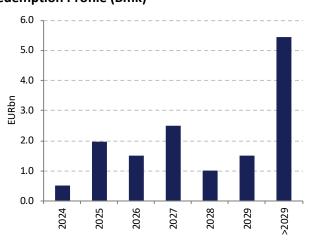
Regional Distribution



Spread Development



Redemption Profile (Bmk)





NATIXIS Pfandbriefbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Natixis Pfandbriefbank AG

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.pfandbriefbank.de

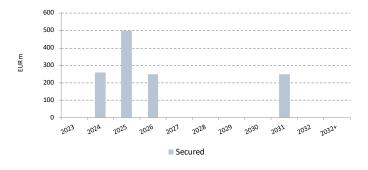
NATIXIS Pfandbriefbank AG (NPB), headquartered in Frankfurt am Main, is a bank that specialises in commercial property financing. NPB finances office space, retail space, logistics and residential property belonging to commercial customers and hotels, among other real estate assets. NPB is wholly owned subsidiary of the French NATIXIS S.A. (NATIXIS), which in turn is a subsidiary of Groupe BPCE. For its part, Groupe BPCE is a cooperative universal bank and the second largest banking group in France. It is classified as a global systemically important bank (G-SIB). In addition, NPB benefits from the group liability mechanism based on solidarity between the members of BPCE through corresponding legislation in France. NPB has concluded a control and profit transfer agreement with its parent company NATIXIS. Moreover, NATIXIS has also committed to providing NPB with over EUR 2.0bn in liquidity on the basis of a letter of comfort. In 2022, an average of approximately 50 employees were working for NPB on average. While NPB can in principle operate as a universal bank, it is primarily active in business areas that can be used for Pfandbrief coverage in accordance with Pfandbrief legislation. In addition, NATIXIS guarantees every property loan issued by NPB by way of a guarantee that matches the term of the respective loan. In geographical terms, around 50% of the loan portfolio is attributable to Germany and approximately 43% is based in France. In terms of its refinancing activities, the bank makes use of Pfandbriefe and unsecured funding guaranteed by NATIXIS in France. NPB itself is an issuer of bearer and registered securities, and issues both private placements as well as syndicated, public transactions.

Income Statement

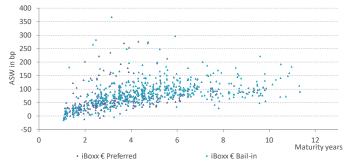
Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	2,398	2,422	2,294
Total Securities	193	293	276
Total Deposits	67	61	36
Tier 1 Common Capital	130	135	139
Total Assets	2,650	2,888	2,807
Total Risk-weighted Assets	364	877	800

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	30	31	31
Net Fee & Commission Inc.	-4	-6	-2
Net Trading Income	-	-	-

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.13	1.13	1.08	Liquidity Coverage Ratio	363.57	222.12	263.62
ROAE	-	-	-	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	46.70	56.80	53.45	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	35.67	15.37	17.35	Reserves/Loans at Amort, Cost	_	-	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Integration in the group structure
- Capitalisation
- Liquidity

- Diversification
- Dependency on wholesale funding
- Cyclical nature of CRE business



NATIXIS Pfandbriefbank - Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

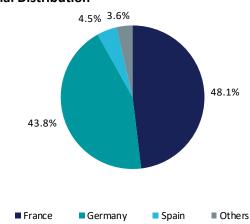
Cover Pool Data

Cover pool volume (EURm)	1,689	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,296	Rating (S&P)	-
-thereof ≥ EUR 250m	85.6%	Rating (Fitch)	-
Current OC (nominal)	30.3%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	5
Main country	48% France	Collateral score	21.5%
Main region	91% Ile-de-France	RRL	-
Number of loans	93	JRL	-
Number of borrowers	127	Unused notches	-
Avg. exposure to borrowers (EUR)	11,409,576	AAA credit risk (%)	-
WAL (cover pool)	3.1y	PCU	-
WAL (covered bonds)	3.3y	Recovery uplift	-
Fixed interest (cover pool)	49.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	57.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

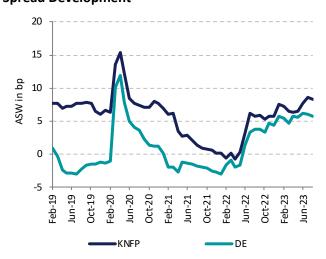
Borrower Types

8.8% Residential Commercial Multi-family

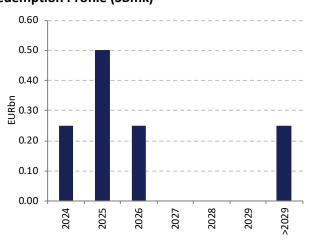
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Norddeutsche Landesbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Norddeutsche Landesbank Girozentrale

	Rating	Outlook
Fitch	A-	Stable
Moody's	A3	Positive
S&P	-	-

Homepage

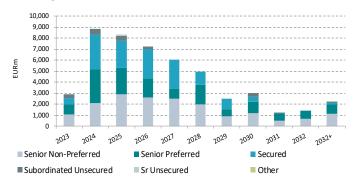
www.nordlb.de

Norddeutsche Landesbank Girozentrale (NORD/LB) is a public-law institution and part of the Savings Bank Finance Group. It is one of the leading German commercial banks and, due to its balance sheet total, is one of the nationally system-relevant banks. The largest owner is the federal state of Lower Saxony with 57.5%, followed by the two trustee companies of the savings bank financial group (FIDES Gamma and FIDES Delta) with 12.06% each. NORD/LB acts as the parent company of the NORD/LB Group, which includes the subsidiary NORD/LB Luxembourg S.A. Covered Bond Bank. It also offers its services under the brands "Deutsche Hypo" and "Braunschweigische Landessparkasse". In addition to its head offices in Hanover, Braunschweig and Magdeburg, the Group is represented in Bremen, Düsseldorf and Hamburg as well as by branches in London, New York and Singapore. NORD/LB acts as the central bank for the savings banks in Lower Saxony (NI), Saxony-Anhalt (SA) and Mecklenburg-Western Pomerania (MV). As a landesbank it supports its sponsoring federal states of NI and SA in arranging their financial transactions. NORD/LB also acts as a promotional bank. The Group's business model is divided into the segments "Private and Commercial Customers and Savings Bank Network", "Corporate Customers", "Markets", "Special Finance" and "Real Estate Customers". The transformation programme "NORD/LB 2024" with targets in the areas of balance sheet reduction, cost reduction and Group restructuring achieved important interim goals. NORD/LB has integrated the topic of sustainability into its business model. Green loans for energy-efficient buildings have been granted for many years, and the first Green Pfandbrief was issued in 2017.

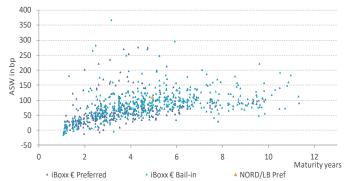
Balance Sheet					
(EURm)	2020Y	2022Y	2023Q1		
Net Loans to Customers	74,105	71,705	-		
Total Securities	29,039	20,188	-		
Total Deposits	52,414	47,975	-		
Tier 1 Common Capital	5,763	5,684	5,971		
Total Assets	126,176	109,325	109,975		
Total Risk-weighted Assets	39.791	40.142	39.833		

Income Statement (EURm) 2020Y 2022Y 2023Q1 896 Net Interest Income 1,286 229 Net Fee & Commission Inc. -38 166 46 225 -117 -14 **Net Trading Income** 915 893 225 **Operating Expense** 419 -140 -31 Credit Commit. Impairment 104 Pre-tax Profit -27 -8

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2022Y	2023Q1		2020Y	2022Y	2023Q1
Net Interest Margin	0.98	0.81	-	Liquidity Coverage Ratio	157.80	150.11	151.32
ROAE	0.22	1.46	-0.95	IFRS Tier 1 Leverage Ratio	4.80	5.32	-
Cost-to-Income	65.31	98.13	113.64	NPL/Loans at Amortised Cost	2.10	1.07	-
Core Tier 1 Ratio	14.48	14.16	14.99	Reserves/Loans at Amort, Cost	1.38	1.00	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

A SWOT analysis cannot be offered due to the obvious conflict of interest here.



Norddeutsche Landesbank – Mortgage

Germany

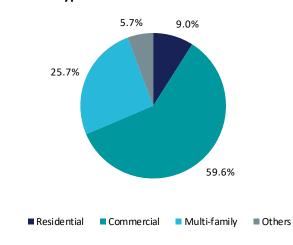


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

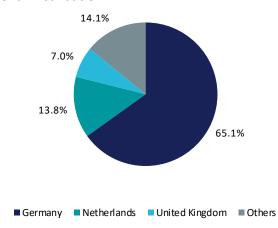
Cover Pool Data

Cover pool volume (EURm)	13,329	Rating (Moody's)	Aa1
Amount outstanding (EURm)	9,144	Rating (S&P)	-
-thereof ≥ EUR 500m	82.0%	Rating (Fitch)	-
Current OC (nominal)	45.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	3
Main country	65% Germany	Collateral score	16.3%
Main region	81% Lower Saxony	RRL	-
Number of loans	13,863	JRL	-
Number of borrowers	13,130	Unused notches	-
Avg. exposure to borrowers (EUR)	958,315	AAA credit risk (%)	-
WAL (cover pool)	n/a	PCU	-
WAL (covered bonds)	n/a	Recovery uplift	-
Fixed interest (cover pool)	77.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.1%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	60.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



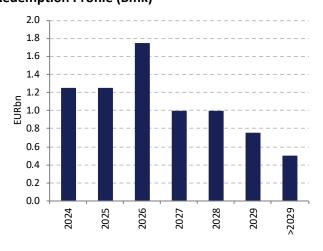
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Norddeutsche Landesbank – Public Sector

Germany

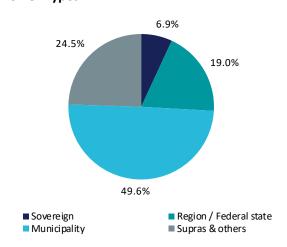


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

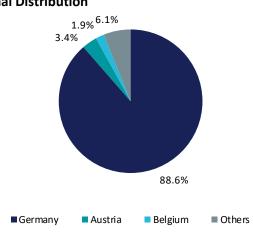
Cover Pool Data

Cover pool volume (EURm)	13,489	Rating (Moody's)	Aa1
Amount outstanding (EURm)	11,618	Rating (S&P)	-
-thereof ≥ EUR 500m	17.6%	Rating (Fitch)	-
Current OC (nominal)	16.1%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	3
Main country	89% Germany	Collateral score	5.8%
Main region	39% Lower Saxony	RRL	-
Number of loans	3,910	JRL	-
Number of borrowers	1,394	Unused notches	-
Avg. exposure to borrowers (EUR)	9,347,685	AAA credit risk (%)	-
WAL (cover pool)	7.3y	PCU	-
WAL (covered bonds)	6.7y	Recovery uplift	-
Fixed interest (cover pool)	87.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	98.2%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

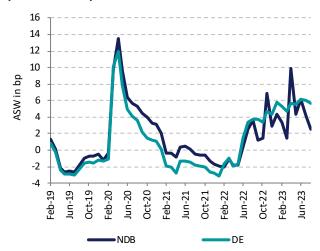
Borrower Types



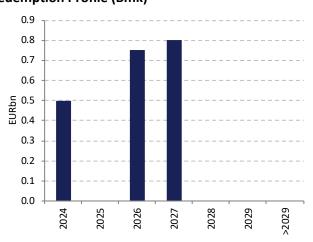
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Oldenburgische Landesbank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Oldenburgische Landesbank AG

Rating	Outlool
-	-
Baa2	Positive
-	-
	-

Homepage

www.olb.de

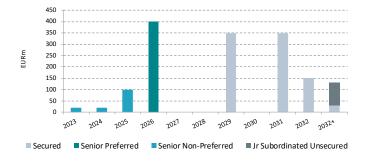
Oldenburgische Landesbank AG (OLB), headquartered in Oldenburg, is a financial institute focused on the north of Germany. The bank in its present form was established following the merger of OLB with Bremer Kreditbank AG and Bankhaus Neelmeyer in 2018, and then with Wüstenrot Bank AG Pfandbriefbank in 2019. A total of 94% of the share capital (FY 2022) in OLB was held by Apollo Global Management, Grovepoint Investment Management and the Teacher Retirement System of Texas, with none of the shareholders having a stake of ≥40%. The bank has around 1,400 staff, who serve over 610,000 customers through a regional branch network and nationwide online offering. OLB reports across the two strategic business segments Private & Business Customers (PBC; 50% of operating earnings in FY 2022) and Corporates & Diversified Lending (CDL; 49%), as well as Corporate Center. The PBC segment includes the retail customer and SME business, as well as Private Banking & Wealth Management (brand: Bankhaus Neelmeyer). In addition to its branch business, which is exclusively based in north-west Germany, OLB also operates across the whole of Germany via digital platforms. The business segment CDL comprises large volume corporate transactions, acquisition and football financing as well as commercial property financing. In Europe, the bank is active in niche markets. In September 2022, OLB signed an agreement to acquire Degussa Bank AG (loans: EUR 4.7bn; customers: 322,000; data refers to FY 2022), the closing of the transaction is expected for H2/2023. In terms of the breakdown of the OLB loan portfolio, CDL accounts for a share of 37%, with shares of 42% and 20% attributable to PBC and Degussa Bank respectively.

Balance Sheet			
(EURm)	2020Y	2022Y	2023H1
Net Loans to Customers	15,608	18,009	18,740
Total Securities	1,997	3,214	4,882
Total Deposits	13,049	16,193	16,206
Tier 1 Common Capital	1,056	1,275	1,352
Total Assets	20,172	24,082	24,805
Total Risk-weighted Assets	8,659	9,363	9,391

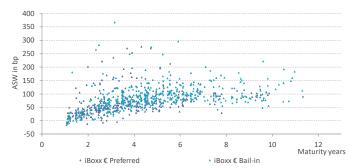
Income Statement

(EURm)	2020Y	2022Y	2023H1
Net Interest Income	334	436	243
Net Fee & Commission Inc.	115	115	59
Net Trading Income	20	2	-7
Operating Expense	296	260	129
Credit Commit. Impairment	58	45	15
Pre-tax Profit	100	277	155

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2022Y	2023H1		2020Y	2022Y	2023H1
Net Interest Margin	1.72	1.82	2.04	Liquidity Coverage Ratio	151.89	144.99	180.20
ROAE	5.98	13.30	13.40	IFRS Tier 1 Leverage Ratio	5.27	5.34	5.49
Cost-to-Income	62.80	44.91	42.24	NPL/Loans at Amortised Cost	-	1.52	-
Core Tier 1 Ratio	12.19	13.62	14.40	Reserves/Loans at Amort. Cost	1.17	1.02	-

Source: Bloomberg, S&P Global Market Intelligence (24.08.2023), NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Increased profitability
- Funding profile (deposits)
- NPL ratio

- Concentration risks from ABF business
- Increased capital requirements
- · Liquidity buffer



Oldenburgische Landesbank – Mortgage

Germany

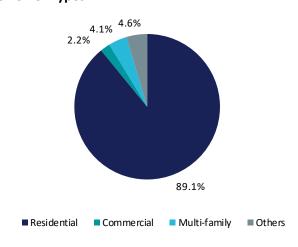


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

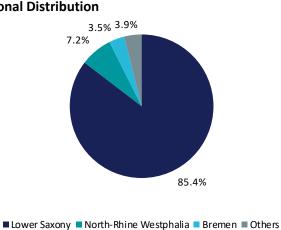
Cover Pool Data

Cover pool volume (EURm)	1,316	Rating (Moody's)	Aa1
Amount outstanding (EURm)	1,061	Rating (S&P)	-
-thereof ≥ EUR 250m	66.0%	Rating (Fitch)	-
Current OC (nominal)	24.1%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	3
Main country	100% Germany	Collateral score	5.1%
Main region	85% Lower Saxony	RRL	-
Number of loans	11,171	JRL	-
Number of borrowers	9,803	Unused notches	-
Avg. exposure to borrowers (EUR)	128,091	AAA credit risk (%)	-
WAL (cover pool)	12.7y	PCU	-
WAL (covered bonds)	8.4y	Recovery uplift	-
Fixed interest (cover pool)	95.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	56.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

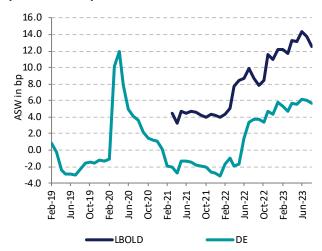
Borrower Types



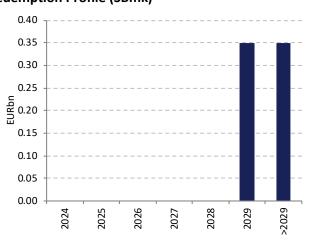
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Santander Consumer Bank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Santander Consumer Bank AG

	Rating	Outlook
Fitch	A-	Stable
Moody's	A2	Stable
S&P	Α	Stable

Homepage

www.santander.de

Santander Consumer Bank AG (SCB), headquartered in Mönchengladbach, is a wholly owned subsidiary of Banco Santander S.A. via Santander Consumer Holding (SCH) and Santander Consumer Finance S.A. It specialises in auto financing and consumer loans and, in fact, is a market leader in these fields. There is a control and profit transfer agreement in place with the holding company (SCH). SCB has held a Pfandbrief licence since 2016 and is also a member of the Compensation Scheme of German Banks (Entschädigungseinrichtung deutscher Banken e.V.) and the deposit protection fund of the private banking sector. In 2022, SCB employed around 2,880 staff in 189 branches, and served approximately 3.5 million customers. The bank divides its activities into the following four main business segments: Mobility (FY 2022: 51% of total interest income), Direct Business (38%), Business & Corporate Banking (4%) and Consumer Financial Services. SCB has a service and product range that includes current accounts, consumer loans and financial services for corporate and retail customers. As measured by loan volume, SCB is one of the largest manufacturer-independent mobility financiers in Germany. Since 2019, the bank has held a 51% stake in Hyundai Capital Bank Europe GmbH (HCBE), which in turn holds 92.07% of shares in Allane SE (previously SIXT Leasing SE). In March 2022, SCB announced that it would be selling its shareholding in PSA Bank Deutschland GmbH to Opel Bank S.A. Santander Consumer Bank completed the full acquisition of MCE Bank GmbH (Mitsubishi Corporation) in the first half of 2023. As at FY 2022, 39% of the funding mix comprised retail customer deposits, followed by retained ABS (17%) and ECB funding at 16%.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	29,217	28,856	32,044
Total Securities	11,435	11,969	12,201
Total Deposits	22,774	23,390	25,250
Tier 1 Common Capital	2,938	2,907	2,891
Total Assets	50,127	55,623	53,635
Total Risk-weighted Assets	19,734	19,368	22,376

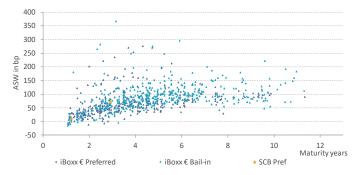
Income Statement

moonic otatoment			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	1,010	1,071	1,054
Net Fee & Commission Inc.	158	182	163
Net Trading Income	-	-	-
Operating Expense	774	752	774
Credit Commit. Impairment	124	134	112
Pre-tax Profit	394	533	444

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	2.15	2.08	1.98	Liquidity Coverage Ratio	236.60	519.60	231.70
ROAE	12.33	16.05	13.38	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	59.66	52.03	56.95	NPL/Loans at Amortised Cost	1.71	1.92	2.09
Core Tier 1 Ratio	14.89	15.01	12.92	Reserves/Loans at Amort. Cost	1.81	1.72	2.15

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in DE (car & consumer financing)
- Granularity of the loan portfolio
- Capitalisation

- Sectoral concentration risks
- Volatile business areas
- Normalisation of funding costs (TLTRO discontinued)



Santander Consumer Bank – Mortgage

Germany

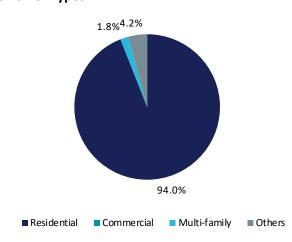


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

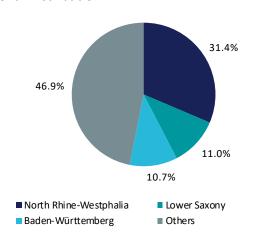
Cov	/er	Poo	Data

Cover pool volume (EURm)	1,228	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,025	Rating (S&P)	-
-thereof ≥ EUR 500m	97.6%	Rating (Fitch)	AAA
Current OC (nominal)	19.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Germany	Collateral score	5.0%
Main region	31% North Rhine-Westphalia	RRL	-
Number of loans	18,707	JRL	-
Number of borrowers	23,400	Unused notches	-
Avg. exposure to borrowers	(EUR) 50,277	AAA credit risk (%)	-
WAL (cover pool)	5.2y	PCU	6
WAL (covered bonds)	4.0y	Recovery uplift	2
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bond	s) 100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	45.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

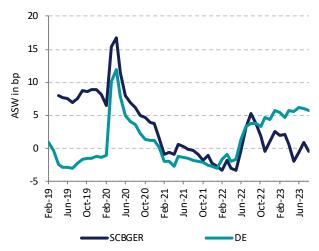
Borrower Types



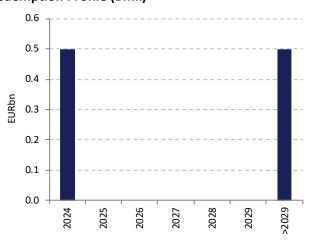
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Sparkasse Hannover

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparkasse Hannover

	Rating	Outlook
Fitch	A+	Stable
Moody's	-	-
S&P	-	-

Homepage

www.sparkasse-hannover.de

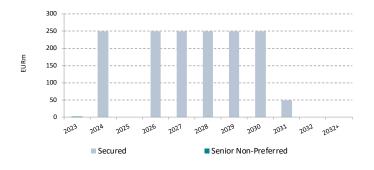
Sparkasse Hannover is a public law institution and Germany's sixth-largest savings bank in terms of total assets (data as of year-end 2022). With its 1,744 employees, it is the regional market leader in the core business areas of retail and corporate banking. As a member of the support fund for savings banks of the Sparkassenverband Niedersachsen (association of savings banks in Lower Saxony), it benefits from a joint protection scheme for German savings banks. In 2023 and, hence in its 200th anniversary year, Sparkasse Hannover reported an operating profit before valuation of EUR 140.9m (FY 2022). The most significant source of income is net interest income (FY 2022: EUR 267.6m), for which an increase of EUR 34.3m was reported in 2022. Loans to customers increased by EUR 863m, adding up to EUR 14.8bn. Sparkasse Hannover reported net fee and commission income at EUR 112.8m (FY 2022). According to Sparkasse Hannover's calculations, the CIR was 63.3% as of FY/2022 (previous year: 66.9%). The institute's operating expenses amounted to EUR 244.7m (FY 2022) and were largely driven by investments in the digital infrastructure and the modernization of the advisory centers. Increased customer demand for media and digital service was met in FY/2022 with five new centers for multichannel customer service. In addition, investments with a volume of around EUR 45m are planned for the period 2020 to 2024/25 to modernize the range of stationary operations and on-site service. Sparkasse Hannover has been issuing mortgage Pfandbriefe since 2010 and public Pfandbriefe since 2018. The institute has a framework for green issues and placed its first Green Pfandbrief in July 2021.

Balance Sheet			
(EURm)	2021Y	2021Y	2022Y
Net Loans to Customers	13,921	13,921	14,785
Total Securities	2,299	2,299	2,289
Total Deposits	14,924	14,924	15,094
Tier 1 Common Capital	1,401	1,401	1,320
Total Assets	20,404	20,404	19,927
Total Risk-weighted Assets	11,295	11,295	10,393

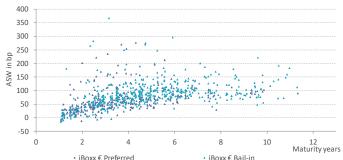
Income Statement

(EURm)	2021Y	2021Y	2022Y
Net Interest Income	192	192	269
Net Fee & Commission Inc.	111	111	113
Net Trading Income	-	-	-
Operating Expense	248	248	252
Credit Commit. Impairment	3	3	74
Pre-tax Profit	56	56	78

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2021Y	2022Y		2021Y	2021Y	2022Y
Net Interest Margin	1.01	1.01	1.37	Liquidity Coverage Ratio	176.00	176.00	132.60
ROAE	1.42	1.42	1.36	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	76.19	76.19	57.27	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	12.40	12.40	12.70	Reserves/Loans at Amort, Cost	_	-	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Regional market leader in the retail and SME segments
- Deposit basis
- Liability member of the Sparkassen financial group

- Regional concentration
- Profitability
- Intensity of competition



Sparkasse Hannover – Mortgage

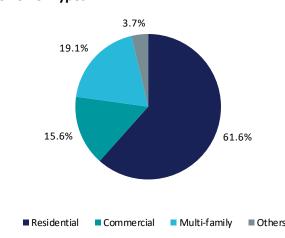
Germany

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

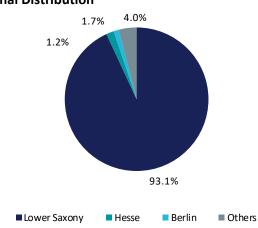
Cover Pool Data

Cover pool volume (EURm)	2,809	Rating (Moody's)	-
Amount outstanding (EURm)	1,878	Rating (S&P)	-
-thereof ≥ EUR 250m	66.6%	Rating (Fitch)	AAA
Current OC (nominal)	49.6%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Germany	Collateral score	-
Main region	93% Lower Saxony	RRL	-
Number of loans	16,176	JRL	-
Number of borrowers	12,872	Unused notches	-
Avg. exposure to borrowers (EUR)	210,170	AAA credit risk (%)	-
WAL (cover pool)	16.7y	PCU	6
WAL (covered bonds)	4.9y	Recovery uplift	2
Fixed interest (cover pool)	90.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	56.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

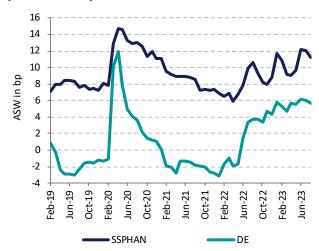
Borrower Types



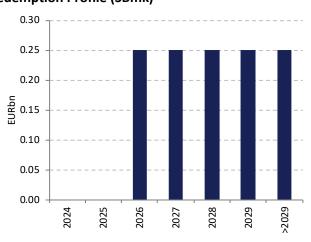
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Sparkasse Hannover – Public Sector

Germany



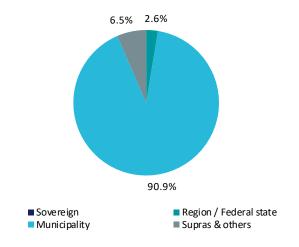
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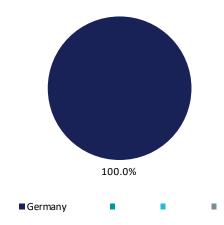
Cover Pool Data

Cover pool volume (EURm)	1,372	Rating (Moody's)	-
Amount outstanding (EURm)	566	Rating (S&P)	-
-thereof ≥ EUR 250m	44.2%	Rating (Fitch)	-
Current OC (nominal)	142.4%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Public Sector	TPI leeway	-
Main country	100% Germany	Collateral score	-
Main region	n/a	RRL	-
Number of loans	n/a	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	n/a	PCU	-
WAL (covered bonds)	n/a	Recovery uplift	-
Fixed interest (cover pool)	94.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2B
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types

Regional Distribution

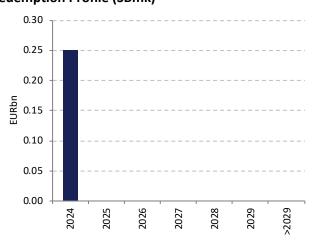




Spread Development

16 14 12 10 ASW in bp 8 6 4 2 0 -2 Feb-20 Feb-19 Jun-20 Feb-21 SSPHAN

Redemption Profile (SBmk)





Sparkasse KölnBonn

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparkasse KölnBonn

R	ating	Outlook
Fitch*	A+	Stable
Moody's**	A1	Positive
S&P	-	-

Homepage

www.sparkasse-koelnbonn.de

Sparkasse KölnBonn (SKB) is a public law institution headquartered in Cologne. SKB was created in 2005 from the merger of Sparkasse Köln and Sparkasse Bonn, and employs nearly 3,500 staff. The city of Cologne and the federal city of Bonn are the owners of the bank. SKB is a member of the Rheinsicher Sparkassen- und Giroverband (Rhineland Savings Banks and Giro Association; RSGV) and is part of the voluntary institutional protection system and the statutory deposits protection scheme of the Sparkassen financial group via its savings bank support fund. As at FY 2022, SKB has over 65 branches and 49 self-service points. Two mobile branches are also available, as well as a direct branch for customer service. In terms of customer target groups, SKB focuses on retail customers, self-employed people, and small and medium-sized enterprises (SMEs) based in the region. The main business segments are retail and business customers. As a universal bank, it offers its customers a broad range of financial services. The loan portfolio is comprised of the following categories: Corporates and the Self-Employed (FY 2022: 64%), Private (31%) and Other (5%). The category "Other" includes municipalities, insurance firms and associations. As part of the Strategy 2025 initiative, SKB is working towards a stronger focus on customer needs as well as sustainable improvement of its earnings and financial position. The bank is also aiming to align its business activities towards recognised sustainability criteria. SKB issued its first green mortgage Pfandbrief in April 2022 as part of its sustainability strategy. However, it mainly relies on customer deposits in terms of its refinancing activities.

Balance Sheet				
(EURm)	2020Y	2021Y	2022Y	
Net Loans to Customers	19,862	20,691	21,439	
Total Securities	3,255	3,248	3,183	
Total Deposits	21,748	21,947	22,056	
Tier 1 Common Capital	1,743	1,786	1,821	
Total Assets	27,766	27,969	28,034	

14,056

14,738

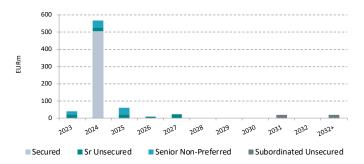
15,171

Income Statement

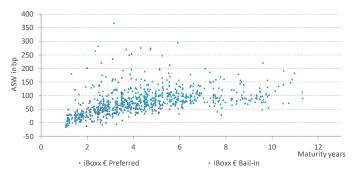
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	415	328	376
Net Fee & Commission Inc.	177	185	199
Net Trading Income	5	4	7
Operating Expense	524	504	505
Credit Commit. Impairment	72	12	7
Pre-tax Profit	60	58	69

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.57	1.22	1.39	Liquidity Coverage Ratio	157.95	152.83	150.26
ROAE	1.10	0.96	1.38	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	76.20	84.56	77.00	NPL/Loans at Amortised Cost	0.54	0.98	0.93
Core Tier 1 Ratio	12.40	12.12	12.01	Reserves/Loans at Amort. Cost	0.69	1.14	1.01

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Asset quality
- Funding profile (deposit basis)
- Capitalisation

- Profitability
- Diminishing loss absorption capacity
- Regional and sectoral credit risk concentration

^{*} Verbundrating

^{**} Verbundrating: Senior Unsecured/LT Bank Deposits



Sparkasse KölnBonn – Mortgage

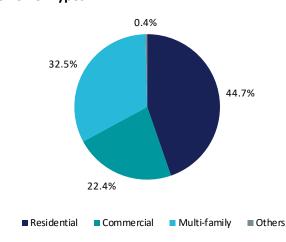
Germany



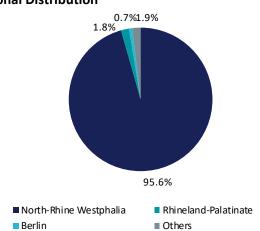
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

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Borrower Types



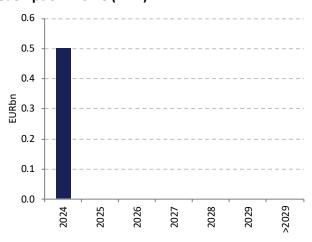
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Sparkasse Pforzheim Calw

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparkasse Pforzheim Calw

	Rating	Outlook
Fitch	A+	Stable
Moody's	-	-
S&P	-	-

Homepage

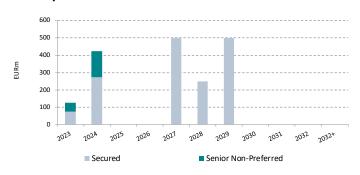
www.sparkasse-pforzheimcalw.de Sparkasse Pforzheim Calw, headquartered in Pforzheim, is an independent public law institution and the largest savings bank in Baden-Württemberg as measured by total assets. The institute was established in 2003 through the merger of Stadt+Kreis-SPARKASSE PFORZHEIM and Kreissparkasse Calw. It is owned by the special purpose association STADT+KREISSPARKASSE PFORZHEIM ENZKREIS CALW. Sparkasse Pforzheim Calw is a member of the Association of Savings Banks in Baden-Württemberg (SVBW), via which it is part of the (German Savings Banks Association (Deutscher Sparkassen und Giroverband e.V. - DSGV). As a member of the DSGV, the bank is affiliated with the Sparkasse financial group protection system. The bank employs around 1,900 staff, who serve retail customers, corporates and municipalities at its headquarters and 91 business branches. The deposit and lending segments constitute the main business areas of the bank. In cooperation with businesses within the financial group, Sparkasse Pforzheim Calw offers products and services in the areas of investment, building society, insurance and leasing. The business area of the savings bank covers the city of Pforzheim, the district of Enzkreis, the district of Calw and two municipalities. At 52%, more than half of the customer loan portfolio is attributable to corporates (FY 2022), while retail customers account for around 44% and municipalities 3%. The lion's share of the funding structure consisted of customer deposits (56% of liabilities), with liabilities to credit institutions (19%) and central banks (9%) accounting for other notable shares. Sparkasse Pforzheim Calw has been authorised to issue mortgage Pfandbriefe since 2008 and placed its first EUR benchmark Pfandbrief (volume: EUR 500m) in January 2023.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	9,500	9,940	10,705
Total Securities	3,722	3,363	3,261
Total Deposits	9,624	9,921	10,191
Tier 1 Common Capital	1,055	1,104	1,154
Total Assets	15,470	16,096	16,710
Total Risk-weighted Assets	8,598	9,063	9,542

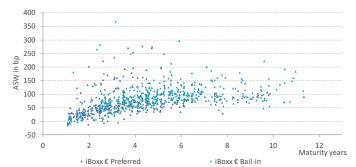
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	194	211	315
Net Fee & Commission Inc.	73	74	76
Net Trading Income	38	20	18
Operating Expense	219	201	208
Credit Commit. Impairment	23	31	149
Pre-tax Profit	44	49	49

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.41	1.38	1.99	Liquidity Coverage Ratio	158.90	152.38	139.52
ROAE	1.38	1.32	1.26	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	69.59	62.94	46.30	NPL/Loans at Amortised Cost	2.27	-	-
Core Tier 1 Ratio	12.27	12.18	12.10	Reserves/Loans at Amort. Cost	1.28	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Regional market position
- Member of the Sparkassen financial group

- Profitability
- Regional concentration risks



Sparkasse Pforzheim-Calw – Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

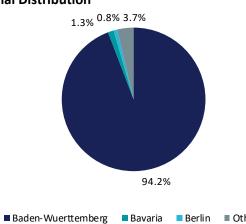
Cover Pool Data

2,803	Rating (Moody's)	-
2,343	Rating (S&P)	-
42.7%	Rating (Fitch)	AAA
19.6%	Rating (DBRS)	-
-	TPI	-
Mortgage	TPI leeway	-
100% Germany	Collateral score	-
94% Baden-Wuerttemberg	RRL	-
24,172	JRL	-
19,168	Unused notches	-
R) 139,443	AAA credit risk (%)	-
14.2y	PCU	6
4.7y	Recovery uplift	2
95.1%	Outstanding ESG BMKs	No
43.3%	LCR eligible	Yes
-	LCR level (Bmk)	1
53.4%	Risk weight	10%
0.0%	Maturity structure (Bmk)	SB
	2,343 42.7% 19.6% Mortgage 100% Germany 94% Baden-Wuerttemberg 24,172 19,168 R) 139,443 14.2y 4.7y 95.1% 43.3% 53.4%	2,343 Rating (S&P) 42.7% Rating (Fitch) 19.6% Rating (DBRS) - TPI Mortgage TPI leeway 100% Germany Collateral score 94% Baden-Wuerttemberg RRL 24,172 JRL 19,168 Unused notches R) 139,443 AAA credit risk (%) 14.2y PCU 4.7y Recovery uplift 95.1% Outstanding ESG BMKs 43.3% LCR eligible - LCR level (Bmk) 53.4% Risk weight

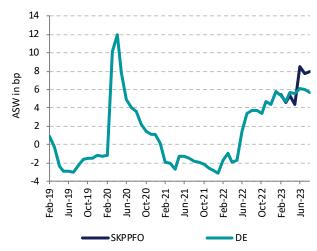
Borrower Types

14.5% Residential Commercial Multi-family Ot

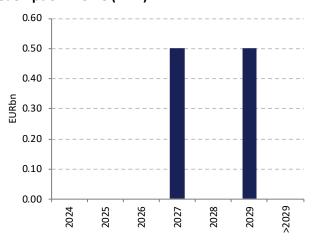
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Stadtsparkasse München

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Stadtsparkasse München

	Rating	Outlook
Fitch	A+	Stable
Moody's	-	-
S&P	-	-

Homepage

www.sskm.de

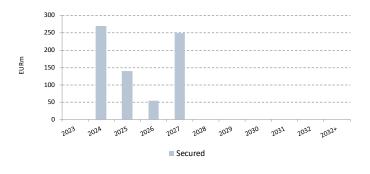
Stadtsparkasse München (SSKM) is a public law institution and one of the largest savings banks in Germany as measured by total assets. The city of Munich, as the regional capital of the Free State of Bavaria, is the owner of SSKM. The bank is a member of the Association of Bavarian Savings Banks (Sparkassenverband Bayern), meaning that it is also affiliated with the Sparkasse financial group protection system. The protection system guarantees voluntary institutional protection in addition to ensuring compliance with statutory deposit protection regulations. SSKM employs around 2,200 staff and 230 trainees, who serve customers in approximately 50 branches. According to its own information, the savings bank is a market leader in the retail and corporate customer business in the Munich region. SSKM is subject to the regional principle and is responsible for monetary and credit services in its area of business. In addition to the branch business, the bank provides its customers with digital offerings. Indeed, around 75% of retail accounts are registered for online banking and almost one in four customers use the mobile banking app. The focus of the institute within the lending business lies on the area of corporate customers with a loan volume of EUR 10.5bn (FY 2022), while a total of EUR 5.5bn was attributable to retail customers. As at year-end 2022, the cumulative lending volume amounted to around EUR 16.9bn, which reflects a rise of +4.6% year on year. The total volume of customer deposits amounted to EUR 18.7bn (FY 2022), with the share of retail customer deposits coming in at around 79%. In addition to deposits, SSKM's refinancing operations also include mortgage and public sector Pfandbrief issuances. The bank is striving to operate on a climate-neutral basis by 2035.

Balance Sheet			
(EURm)	2019Y	2020Y	2021Y
Net Loans to Customers	14,525	15,183	15,847
Total Securities	2,785	2,807	2,422
Total Deposits	16,419	17,694	18,660
Tier 1 Common Capital	1,826	1,968	2,000
Total Assets	20,065	22,095	23,749
Total Risk-weighted Assets	13,512	13,546	14,618

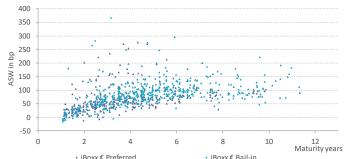
Income Statement

micomic otalicinicini			
(EURm)	2019Y	2020Y	2021Y
Net Interest Income	258	257	238
Net Fee & Commission Inc.	131	132	148
Net Trading Income	3	2	2
Operating Expense	336	318	312
Credit Commit. Impairment	135	72	58
Pre-tax Profit	46	78	84

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2019Y	2020Y	2021Y		2019Y	2020Y	2021Y
Net Interest Margin	1.38	1.29	1.10	Liquidity Coverage Ratio	149.60	181.00	141.11
ROAE	2.19	1.74	2.00	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	54.81	67.52	68.57	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	13.51	14.53	13.68	Reserves/Loans at Amort. Cost	0.12	0.20	0.30

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market penetration
- Member of the joint liability scheme of the Sparkassen Regional risk concentration financial group

- Profitability



Stadtsparkasse München – Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

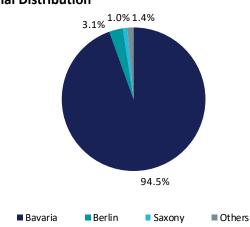
Cover Pool Data

Cover pool volume (EURm)	1,361	Rating (Moody's)	-
Amount outstanding (EURm)	715	Rating (S&P)	-
-thereof ≥ EUR 250m	69.9%	Rating (Fitch)	AA+
Current OC (nominal)	90.3%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Germany	Collateral score	-
Main region	95% Bavaria	RRL	-
Number of loans	4,898	JRL	-
Number of borrowers	3,632	Unused notches	-
Avg. exposure to borrowers (EUR)	365,538	AAA credit risk (%)	-
WAL (cover pool)	18.4y	PCU	6
WAL (covered bonds)	2.8y	Recovery uplift	1
Fixed interest (cover pool)	99.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	51.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

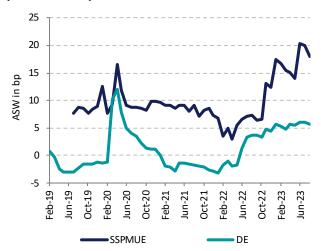
Borrower Types

7.7% Residential Commercial Multi-family

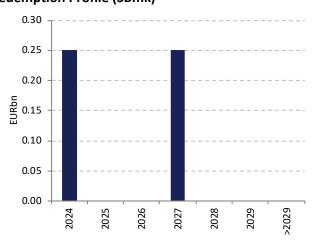
Regional Distribution



Spread Development



Redemption Profile (SBmk)





UniCredit Bank

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

UniCredit Bank AG

	Rating	Outlook
Fitch	BBB+	Stable
Moody's	A2	Negative
S&P	BBB+	Stable

Homepage

www.hypovereinsbank.de

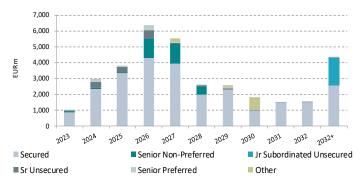
UniCredit Bank AG (UCB), headquartered in Munich, is one of the largest banks in Germany. It is the parent company of the HVB Group and a wholly owned subsidiary of UniCredit S.p.A. (UniCredit). Although Bayerische Hypo- und Vereinsbank AG has changed its name to UCB, the established HypoVereinsbank brand continues to exist. The HVB Group has over 430 business branches worldwide, of which 385 are located in Germany. The bank employs around 12,300 staff (FY 2022). The HVB Group provides its retail and corporate customers, as well as public bodies, international corporations and institutional clients a comprehensive range of universal bank services. Moreover, customers are offered access to business banking services within the UniCredit Group in 13 countries. The bank also acts as a competence centre for investment banking and customer risk management at UniCredit. In 2022, a restructuring of the business segments took place in order to align with UniCredit reporting. Ultimately, the business was divided into the segments of Retail (FY 2022: 24% of pre-tax profit), Corporates (71%) and Other (5%). The focus of the strategic plan "UniCredit Unlocked" is on streamlining the operating model by way of comprehensive process optimisation and digitalisation, growth in selected business segments and enhancing capital efficiency. Around 72% of wholesale funding was comprised of Pfandbriefe (Q1 2023). In September 2022, UCB issued its second green Pfandbrief (volume: EUR 500m) as part of the Sustainability Bond Framework of the UniCredit Group.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	144,247	148,709	154,776
Total Securities	107,062	105,709	97,670
Total Deposits	143,803	134,340	147,152
Tier 1 Common Capital	15,122	15,167	16,060
Total Assets	338,124	312,304	318,006
Total Risk-weighted Assets	80,637	86,928	82,077

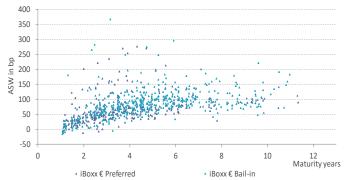
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	2,413	2,516	2,626
Net Fee & Commission Inc.	1,007	1,115	1,120
Net Trading Income	581	731	1,110
Operating Expense	2,809	3,412	2,646
Credit Commit. Impairment	730	113	302
Pre-tax Profit	1.072	626	1.768

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.77	0.79	0.85	Liquidity Coverage Ratio	-	-	-
ROAE	3.63	1.83	6.93	IFRS Tier 1 Leverage Ratio	5.25	5.68	6.06
Cost-to-Income	68.66	80.53	55.76	NPL/Loans at Amortised Cost	2.30	2.07	1.76
Core Tier 1 Ratio	18.75	17.45	19.57	Reserves/Loans at Amort. Cost	1.31	1.20	1.16

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 05.06.2020

Strengths / Opportunities

- Franchise in German corporate banking
- Capitalisation
- · Funding profile

- Risks from integration in the UniCredit Group
- Volatile business fields
- Limited growth prospects



UniCredit Bank - Mortgage

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

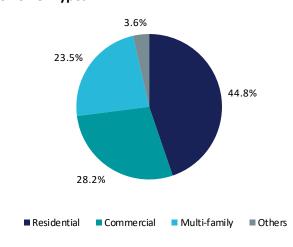
Germany



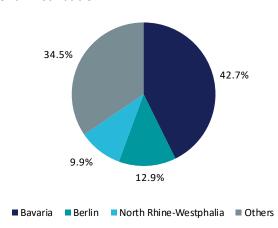
Cover Pool Data

Cover pool volume (EURm)	32,523	Rating (Moody's)	Aaa
Amount outstanding (EURm)	26,270	Rating (S&P)	-
-thereof ≥ EUR 500m	62.2%	Rating (Fitch)	-
Current OC (nominal)	23.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Germany	Collateral score	12.3%
Main region	43% Bavaria	RRL	-
Number of loans	130,441	JRL	-
Number of borrowers	100,455	Unused notches	-
Avg. exposure to borrowers (EUR)	312,105	AAA credit risk (%)	-
WAL (cover pool)	6.9y	PCU	-
WAL (covered bonds)	5.7y	Recovery uplift	-
Fixed interest (cover pool)	82.5%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	99.2%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	42.5%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



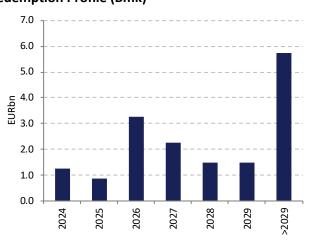
Regional Distribution



Spread Development



Redemption Profile (Bmk)





UniCredit Bank - Public Sector

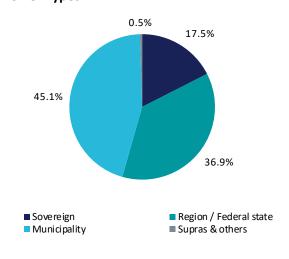
Germany

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

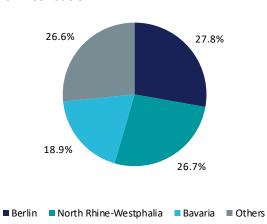
Cover Pool Data

Cover pool volume (EURm)	7,114	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,195	Rating (S&P)	-
-thereof ≥ EUR 500m	53.6%	Rating (Fitch)	-
Current OC (nominal)	69.6%	Rating (DBRS)	-
Committed OC	2.0%	TPI	High
Cover type	Public Sector	TPI leeway	4
Main country	94% Germany	Collateral score	4.7%
Main region	28% Berlin	RRL	-
Number of loans	1,504	JRL	-
Number of borrowers	787	Unused notches	-
Avg. exposure to borrowers (EUR)	9,039,517	AAA credit risk (%)	-
WAL (cover pool)	10.4y	PCU	-
WAL (covered bonds)	4.7y	Recovery uplift	-
Fixed interest (cover pool)	76.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



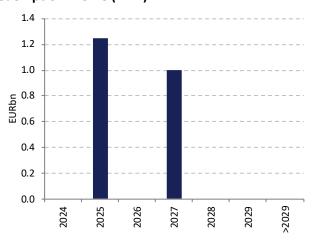
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Wüstenrot Bausparkasse

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Wüstenrot Bausparkasse AG

Rating	Outlook
-	-
-	-
A-	Stable
	-

Homepage

www.wuestenrot.de

Wüstenrot Bausparkasse AG (Wüstenrot), headquartered in Kornwestheim, was established in 1921, making it the oldest private building society in Germany. Wüstenrot & Württembergische AG (W&W) is the sole shareholder of the group. The Wüstenrot Foundation holds 67.2% of the shares in W&W via Wüstenrot Holding AG and the WS Holding. Since the merger between Wüstenrot and Württembergische, the savings bank has been part of the W&W Group. The institute focuses on the German market, although it does also operate a subsidiary in Luxembourg. The group's activities are split between the business segments Residential and Insurance. In addition to the building society, the Residential business segment includes Wüstenrot Haus- und Städtebau GmbH and Wüstenrot Immobilien GmbH. The bank is the second largest building society in Germany as measured by new business and mainly offers building loan agreements and home loans. Wüstenrot sells its products via personal advisers and cooperation partners from the banking and insurance sector, among other channels. The bank has set itself various goals as part of its strategic plan entitled "W&W Besser!". These cover the areas service improvement, market growth in selected business segments, customer acquisition and cost savings. Wüstenrot was able to make its first interim steps towards achieving these goals in 2022 with the modernisation of its IT infrastructure and the implementation of a new core banking system. In 2022, the building society expanded its sustainable home loans offering with two new construction financing products geared towards sustainability.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	22,190	23,235	24,911
Total Securities	3,928	4,238	3,079
Total Deposits	22,923	23,020	23,518
Tier 1 Common Capital	1,052	1,155	1,245
Total Assets	29,195	29,705	30,711
Total Risk-weighted Assets	6,681	6,639	6,759

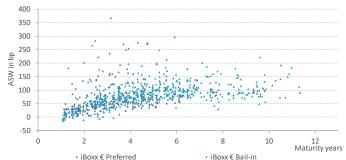
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	343	355	410
Net Fee & Commission Inc.	-64	-48	-62
Net Trading Income	-	-	-
Operating Expense	360	373	391
Credit Commit. Impairment	-12	-42	21
Pro-tay Profit	56	49	35

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.20	1.21	1.36	Liquidity Coverage Ratio	238.38	202.15	158.19
ROAE	2.61	2.53	2.63	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	113.41	102.74	74.06	NPL/Loans at Amortised Cost	1.13	1.08	0.98
Core Tier 1 Ratio	15.75	17.40	18.42	Reserves/Loans at Amort. Cost	0.64	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 28.07.2023

Strengths / Opportunities

- Market position in the building society segment
- Deposit basis

- Fiercely competitive market
- Profitability



Wüstenrot Bausparkasse – Mortgage

Germany



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

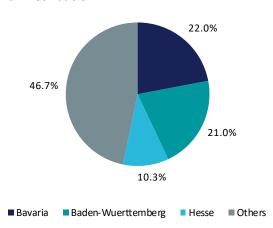
Cov	/er	Poo	Data

Cover pool volume (EURm)	3,630	Rating (Moody's)	-
Amount outstanding (EURm)	2,989	Rating (S&P)	AAA
-thereof ≥ EUR 500m	50.2%	Rating (Fitch)	-
Current OC (nominal)	21.5%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Germany	Collateral score	-
Main region	22% Bavaria	RRL	a+
Number of loans	32,548	JRL	aa+
Number of borrowers	28,651	Unused notches	2
Avg. exposure to borrowers (EUR)	113,090	AAA credit risk (%)	13.8%
WAL (cover pool)	5.9y	PCU	-
WAL (covered bonds)	4.8y	Recovery uplift	-
Fixed interest (cover pool)	99.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	98.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	49.4%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

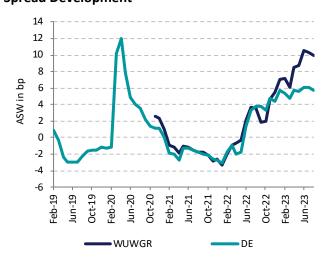
Borrower Types

18.5% 2.6% Residential Commercial Multi-family Other

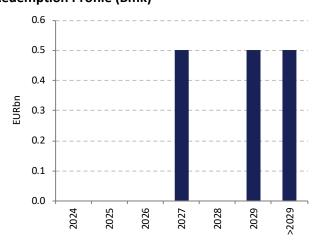
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

Ireland |

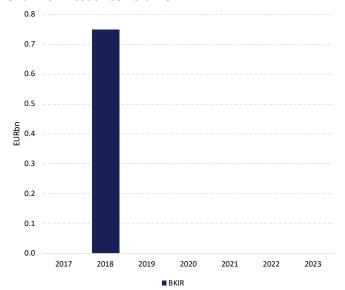
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 8.76bn	Outstanding volume (Bmk)	EUR 0.75bn
Amount outstanding	EUR 3.96bn	Number of benchmarks	1
Number of issuer	1	Outstanding ESG volume (Bmk)	-
No of cover pools	1	Number of ESG benchmarks	-
there of M / PS / others	1/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	SB

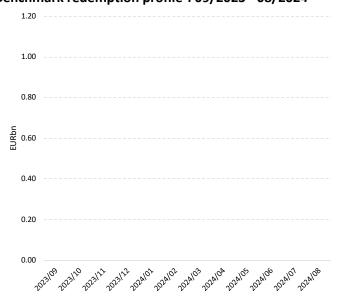
Outstanding benchmark volume¹ (EURbn)

0.750 ■ BKIR

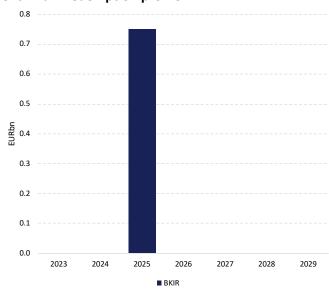
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





Bank of Ireland

Ireland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank of Ireland Group PLC

	Rating	Outlook
Fitch	BBB+	Stable
Moody's	A3	Stable
S&P	BBB	Stable

Homepage

www.bankofireland.com

Headquartered in Dublin, Bank of Ireland (BOI) is the largest Irish bank as measured by assets (FY 2022: EUR 151bn). In addition to retail and corporate banking, BOI is also active in the areas of insurance products, credit cards and property financing. The bank has high market shares in the retail segment (35%) and the Irish mortgage business (FY 2022: 28%). BOI offers its products and services predominantly on its domestic market of the Republic of Ireland, as well as in the UK (including Northern Ireland), via its branch and distribution network. However, it is also active in selected international markets. The bank is split into the following five business segments: Retail Ireland (FY 2022: 70% of pre-tax profit), Wealth and Insurance (3%), Retail UK (26%), Corporate & Markets (38%) and Group Center (-36%). Just over half of the loan portfolio is comprised of mortgages (52%). Loans from the categories SMEs and businesses (29%), real estate and construction (11%) and consumer loans (7%) round off the lending portfolio. Geographically, the majority of the lending portfolio is attributable to Ireland (56%) and the UK (34%). The bank is financed through customer deposits (66%) and wholesale funding (7%). This is mainly comprised of senior debt (55%) and central bank loans (18%), while covered bonds account for a share of 9%. In September 2022, the Irish government sold its remaining shares in BOI. As part of its strategy and its customer acquisition target, BOI acquired the asset management company Davy in June 2022. In February 2023, the bank concluded its acquisition of the loan portfolio and deposits of KBC Ireland. In 2022, BOI issued bonds worth EUR 1.3bn as part of its green bond framework.

Balance Sheet						
(EURm)	2020Y	2021Y	2022Y			
Net Loans to Customers	76,581	76,422	71,961			
Total Securities	36,817	37,058	31,679			
Total Deposits	88,637	92,774	99,200			
Tier 1 Common Capital	7,216	7,896	7,543			
Total Assets	133,754	155,268	151,324			
Total Risk-weighted Assets	48,368	46,386	47,500			

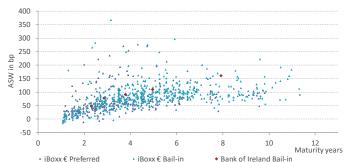
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	2,089	2,227	2,487
Net Fee & Commission Inc.	256	269	311
Net Trading Income	33	127	132
Operating Expense	2,091	1,938	1,972
Credit Commit. Impairment	1,130	-200	195
Pre-tax Profit	-760	1.221	1.056

Redemption Profile (Group)



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.66	1.62	1.71	Liquidity Coverage Ratio	152.83	172.65	214.65
ROAE	-7.05	10.07	7.71	IFRS Tier 1 Leverage Ratio	5.52	5.19	5.15
Cost-to-Income	79.17	64.73	60.29	NPL/Loans at Amortised Cost	5.91	5.67	3.65
Core Tier 1 Ratio	14.92	17.02	15.88	Reserves/Loans at Amort. Cost	2.86	2.51	1.77

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in Ireland
- Deposit basis
- Capitalisation

- Geographical concentration
- Cost efficiency
- · Falling credit demand

NORD/LB

Bank of Ireland - Mortgage

Ireland |

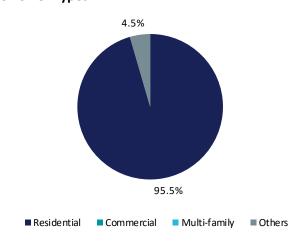


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

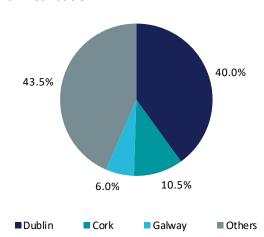
Cover Pool Data

Amount outstanding (EURm)3,955Rating (S&P)thereof ≥ EUR 500m19.0%Rating (Fitch)-Current OC (nominal)121.4%Rating (DBRS)-Committed OC5.0%TPIProbable-HighCover typeMortgageTPI leeway3Main country100% IrelandCollateral score7.8%Main region40% DublinRRL-Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%Loans in arrears0.0%Maturity structure (Bmk)SB	Cover pool volume (EURm)	8,756	Rating (Moody's)	Aaa
Current OC (nominal)121.4%Rating (DBRS)-Committed OC5.0%TPIProbable-HighCover typeMortgageTPI leeway3Main country100% IrelandCollateral score7.8%Main region40% DublinRRL-Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Amount outstanding (EURm)	3,955	Rating (S&P)	-
Committed OC5.0%TPIProbable-HighCover typeMortgageTPI leeway3Main country100% IrelandCollateral score7.8%Main region40% DublinRRL-Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	-thereof ≥ EUR 500m	19.0%	Rating (Fitch)	-
Cover typeMortgage Main countryTPI leeway3Main country100% Ireland 40% DublinCollateral score7.8%Main region40% DublinRRL-Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Current OC (nominal)	121.4%	Rating (DBRS)	-
Main country100% Ireland 40% DublinCollateral score7.8%Main region40% DublinRRL-Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Committed OC	5.0%	TPI	Probable-High
Main region40% DublinRRLNumber of loans66,174JRLNumber of borrowersn/aUnused notchesAvg. exposure to borrowers (EUR)n/aAAA credit risk (%)WAL (cover pool)10.5yPCUWAL (covered bonds)3.2yRecovery upliftFixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Cover type	Mortgage	TPI leeway	3
Number of loans66,174JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Main country	100% Ireland	Collateral score	7.8%
Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)10.5yPCU-WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Main region	40% Dublin	RRL	-
Avg. exposure to borrowers (EUR) N/a N/a AAA credit risk (%) PCU WAL (covered bonds) 3.2y Recovery uplift Fixed interest (cover pool) Fixed interest (covered bonds) 31.7% LCR eligible LTV (indexed) 44.0% LCR level (Bmk) 1 LTV (unindexed) 57.5% Risk weight	Number of loans	66,174	JRL	-
WAL (cover pool) 10.5y PCU - WAL (covered bonds) 3.2y Recovery uplift - Fixed interest (cover pool) 76.3% Outstanding ESG BMKs No Fixed interest (covered bonds) 31.7% LCR eligible Yes LTV (indexed) 44.0% LCR level (Bmk) 1 LTV (unindexed) 57.5% Risk weight 10%	Number of borrowers	n/a	Unused notches	-
WAL (covered bonds)3.2yRecovery uplift-Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
Fixed interest (cover pool)76.3%Outstanding ESG BMKsNoFixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	WAL (cover pool)	10.5y	PCU	-
Fixed interest (covered bonds)31.7%LCR eligibleYesLTV (indexed)44.0%LCR level (Bmk)1LTV (unindexed)57.5%Risk weight10%	WAL (covered bonds)	3.2y	Recovery uplift	-
LTV (indexed) 44.0% LCR level (Bmk) 1 LTV (unindexed) 57.5% Risk weight 10%	Fixed interest (cover pool)	76.3%	Outstanding ESG BMKs	No
LTV (unindexed) 57.5% Risk weight 10%	Fixed interest (covered bonds)	31.7%	LCR eligible	Yes
	LTV (indexed)	44.0%	LCR level (Bmk)	1
Loans in arrears 0.0% Maturity structure (Bmk) SB	LTV (unindexed)	57.5%	Risk weight	10%
	Loans in arrears	0.0%	Maturity structure (Bmk)	SB

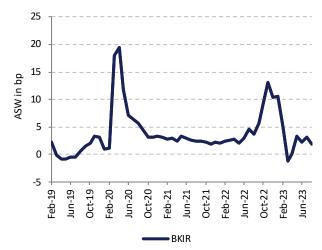
Borrower Types



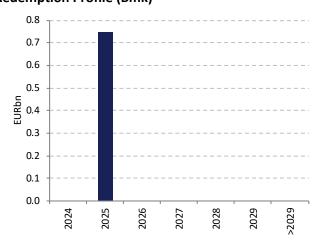
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

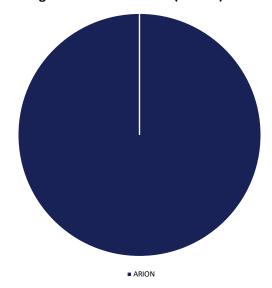
Iceland #



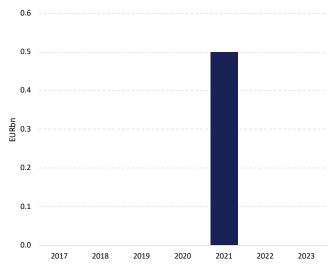
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 8.76bn	Outstanding volume (Bmk)	EUR 0.50bn
Amount outstanding	EUR 6.97bn	Number of benchmarks	1
Number of issuer	3	Outstanding ESG volume (Bmk)	-
No of cover pools	3	Number of ESG benchmarks	-
there of M / PS / others	3/0/0	Outstanding volume (SBmk)	EUR 0.60bn
Ratings (low / high)	A/A	Number of subbenchmarks	2
Best possible LCR level	Level 2A	Maturity types	SB

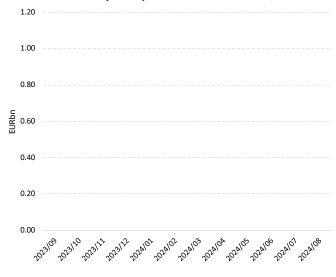
Outstanding benchmark volume¹ (EURbn)



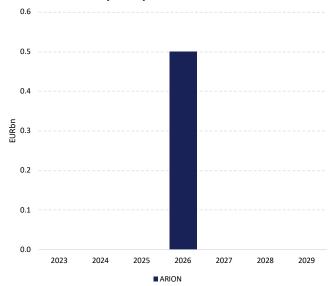
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile¹²





Arion Banki

Iceland #



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Arion Banki hf

	Rating	Outlook
Fitch	-	-
Moody's	Baa1	Positive
S&P	BBB	Negative

Homepage

www.arionbanki.is

Headquartered in the Icelandic capital of Reykjavík, Arion Banki hf. (Arion) is one of the largest banks in Iceland as measured by assets (FY 2022: ISK 1,470bn) and is classified as a domestic systemically important bank (D-SIB). In Iceland, the bank boasts a market share of around 20% for mortgages and 25% in the area of lending to large and medium-sized companies. The three largest shareholders in Arion, which is listed on the Icelandic stock exchange, are the two insurance firms Lifeyrissjodur Starfsm (10.4%) and Lifeyrissjodur Vestmann (10.0%) and the pension fund Gildi Lifeyrissjodur (10.0%; data in each case as at 06 July 2023). With 781 employees (FY 2022), Arion offers various financial services to institutional customers in addition to retail and corporate clients. Arion's traditional deposit and lending business is supplemented by services in areas such as investment banking, funds management and insurance products. Funds management and insurance services are offered via the subsidiaries Stefnir and Vördur respectively. The bank reports across three operating business segments: Retail Banking, Corporate & Investment Banking (CIB) as well as Markets and Stefnir. Moreover, reporting at Arion is rounded off by the segments Treasury, Other Subsidiaries and Supporting Units. The majority of the funding mix (65%) comprises customer deposits (Q1 2023). Covered bonds account for a share of 19% in the overall funding mix. In 2021, the bank published its Green Financing Framework, on the basis of which four green bonds have been issued up to the end of 2022. Arion's credit portfolio contains a 12.5% (FY 2022) share of loans that comply with the framework's ESG criteria. The bank is aiming to increase this share to 20% by 2030.

Balance Sheet

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	6,314	7,146	7,589
Total Securities	1,522	1,274	1,510
Total Deposits	4,421	4,976	5,225
Tier 1 Common Capital	1,075	1,095	1,154
Total Assets	8,861	9,681	10,155
Total Risk-weighted Assets	5,482	5,822	6,098

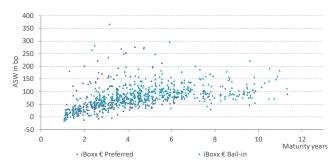
Income Statement

moonic otatement			
(EURm)	2021Y	2022Y	2023H1
Net Interest Income	214	283	148
Net Fee & Commission Inc.	98	113	57
Net Trading Income	41	-22	3
Operating Expense	172	189	83
Credit Commit. Impairment	-21	-1	4
Pre-tax Profit	227	202	125

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.71	3.02	3.07	Liquidity Coverage Ratio	202.83	158.48	162.85
ROAE	14.79	13.85	14.58	IFRS Tier 1 Leverage Ratio	12.28	11.54	11.57
Cost-to-Income	44.44	47.05	37.95	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	19.61	18.80	18.93	Reserves/Loans at Amort. Cost	0.81	0.63	0.67

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position
- Profitability

- Geographical concentration
- Dependency on wholesale funding
- Risk provisions



Arion Banki - Mortgage

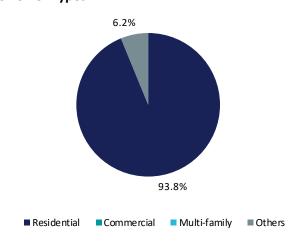
Iceland #=

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

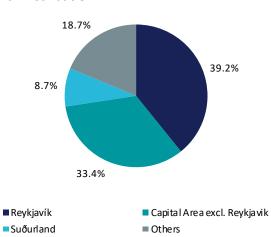
Cover Pool Data

Cover pool volume (EURm)	2,617	Rating (Moody's)	-
Amount outstanding (EURm)	2,140	Rating (S&P)	Α
-thereof ≥ EUR 500m	23.4%	Rating (Fitch)	-
Current OC (nominal)	22.3%	Rating (DBRS)	-
Committed OC	5.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Iceland	Collateral score	-
Main region	39% Reykjavík	RRL	a-
Number of loans	16,342	JRL	a
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	31.2y	PCU	-
WAL (covered bonds)	4.2y	Recovery uplift	-
Fixed interest (cover pool)	57.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	88.2%	LCR eligible	Yes
LTV (indexed)	21.7%	LCR level (Bmk)	2A
LTV (unindexed)	25.9%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk))	SB

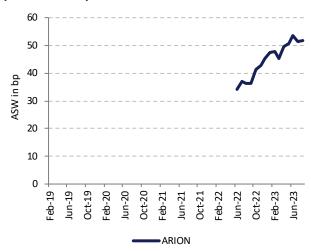
Borrower Types



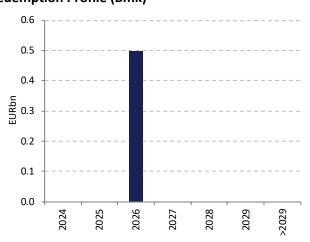
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Islandsbanki Iceland

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Islandsbanki hf

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB	Stable

Homepage

www.islandsbanki.s

With total assets of ISK 1,566bn (FY 2022), Islandsbanki hf., which is based in Kopavogur on the outskirts of Reykjavik, is one of Iceland's largest banks. It is one of three domestic systemically important banks (D-SIBs) in Iceland, where it boasts a market share in excess of 20% for mortgages and more than 35% in the area of lending to large and mediumsized companies. The Icelandic state is the largest shareholder in the bank with a stake of 42.5% (as at 07 July 2023). With 700 employees, Islandsbanki serves customers in 12 branches supplemented by digital channels. The bank offers services in the area of retail and corporate customers, investment banking and asset management, and is mainly active on the Icelandic market. Islandsbanki reports across the three main operating areas of Personal Banking, Business Banking and Corporate & Investment Banking, in addition to the segments Treasury & Proprietary Trading, Cost Centres and Subsidiaries, Eliminations & Adjustments. The loan portfolio primarily comprises mortgage loans to private individuals (Q1 2023: 42%), trade and services (8%), the fishing sector (8%) and real estate (10%). Deposits from retail and corporate customers (Q1 2023: 45%), covered bonds (16%) and senior unsecured bonds (12%) account for the majority of the funding mix. In September 2022, the bank issued its first EUR-denominated covered bond with a volume of EUR 300m. The outstanding volume of sustainable loans amounts to ISK 79bn (approx. EUR 0.53bn) as at year-end 2022. The merger negotiations with Kvika banki hf. launched in the spring of 2023 were broken off at the end of June 2023.

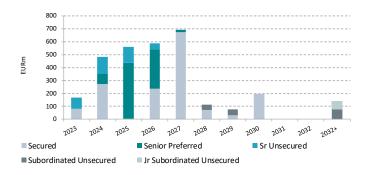
Balance Sheet			
(EURm)	2021Y	2022Y	
Net Loans to Customers	7,326	7,817	
Total Securities	1,122	1,015	

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	7,326	7,817	8,279
Total Securities	1,122	1,015	996
Total Deposits	5,018	5,204	5,462
Tier 1 Common Capital	1,296	1,237	1,356
Total Assets	9,636	10,318	10,656
Total Risk-weighted Assets	6,081	6,584	6,790

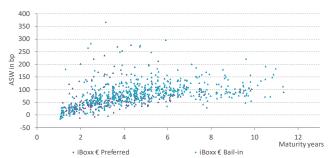
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	227	303	166
Net Fee & Commission Inc.	86	99	47
Net Trading Income	20	-3	2
Operating Expense	159	169	91
Credit Commit. Impairment	-20	-11	-4
Pre-tax Profit	184	231	116

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.44	2.96	3.26	Liquidity Coverage Ratio	155.99	205.29	259.15
ROAE	12.35	11.91	11.55	IFRS Tier 1 Leverage Ratio	13.56	12.09	12.85
Cost-to-Income	47.66	42.19	42.35	NPL/Loans at Amortised Cost	1.99	1.78	1.76
Core Tier 1 Ratio	21.32	18.78	19.97	Reserves/Loans at Amort. Cost	1.23	0.93	0.83

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position
- Funding

- Property market (risk of price corrections)
- Geographical concentration
- Cyclical economic environment



Islandsbanki – Mortgage

Iceland #=



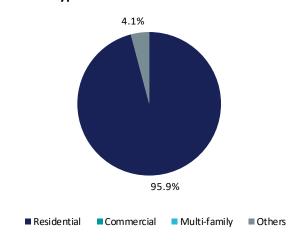
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

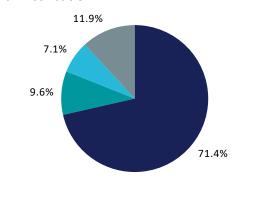
Cover Pool Data

Cover pool volume (EURm)	3,156	Rating (Moody's)	-
Amount outstanding (EURm)	2,448	Rating (S&P)	Α
-thereof ≥ EUR 250m	12.3%	Rating (Fitch)	-
Current OC (nominal)	28.9%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Iceland	Collateral score	-
Main region	71% Reykjavík	RRL	a-
Number of loans	19,846	JRL	a
Number of borrowers	15,647	Unused notches	1
Avg. exposure to borrowers (EUR)	193,395	AAA credit risk (%)	-
WAL (cover pool)	33.1y	PCU	-
WAL (covered bonds)	4.4y	Recovery uplift	-
Fixed interest (cover pool)	67.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	67.0%	LCR eligible	Yes
LTV (indexed)	49.1%	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types

Regional Distribution



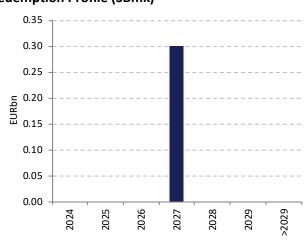


■Reykjavík ■ Reykjanes ■ Norðurland Eystra ■ Others

Spread Development

90 80 70 50 40 30 20 10 Feb-22

Redemption Profile (SBmk)





Landsbankinn

Iceland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Landsbankinn hf

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BBB	Stable

Homepage

www.landsbankinn.is

With total assets of ISK 1,787bn (FY 2022), the Reykjavik-based Landsbankinn hf. is Iceland's largest bank and categorised as a domestic systemically important bank (D-SIB). With just over 800 employees, the bank serves around 140,000 retail and corporate customers in 35 branches. With a share of 98.2% (Q1 2023), the Icelandic state is the largest shareholder in Landsbankinn. The bank offers its customers services in the areas of retail and corporate banking, capital markets and asset management, among others. Landsbankinn operates solely in Iceland and boasts market shares of more than 25% for mortgages and around 40% for corporate loans (Q1 2023). The group reports across the four operating business segments of Personal Banking (FY 2022: 38% of operating earnings), Corporate Banking (45%), Asset Management & Capital Markets (11%), Treasury and Market Making (4%), as well as Other Divisions (2%). A total of 46% of the total loan portfolio (Q1 2023) is attributable to mortgages to private individuals. The loans to businesses (49%) category primarily comprises the fishing, real estate, travel and construction industries. In geographical terms, the loan portfolio is 96% based in Iceland (FY 2022). The capital market funding essentially consisted of covered bonds (Q1 2023: 49%) and senior unsecured bonds (41%), followed by subordinated loans (6%). Customer deposits accounted for 52% of liabilities as at Q1 2023. Under the Sustainable Finance Framework, Landsbankinn issued two green bonds in 2021, the proceeds from which were allocated to eligible Icelandic fishing companies and sustainable waste water treatment initiatives, among other areas.

Balance Sheet				Income State
(EURm)	2021Y	2022Y	2023H1	(EURm)
Net Loans to Customers	9,357	10,174	10,671	Net Interest Inco
Total Securities	1,248	971	893	Net Fee & Comn
Total Deposits	6,070	6,376	6,772	Net Trading Inco
Tier 1 Common Capital	1,912	1,789	1,860	Operating Exper
Total Assets	11,666	11,772	12,684	Credit Commit. I
Total Risk-weighted Assets	7,715	7,829	8,248	Pre-tax Profit

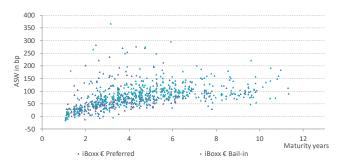
ment

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	260	327	182
Net Fee & Commission Inc.	63	75	38
Net Trading Income	38	-57	18
Operating Expense	172	182	94
Credit Commit. Impairment	-47	-17	10
Pro-tay Profit	2/13	193	135

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.39	2.70	2.97	Liquidity Coverage Ratio	178.79	133.55	165.06
ROAE	10.76	6.25	10.33	IFRS Tier 1 Leverage Ratio	16.43	15.23	14.69
Cost-to-Income	46.82	51.08	39.25	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	24.78	22.86	22.55	Reserves/Loans at Amort. Cost	1.00	0.65	0.63

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position
- Earnings situation

- Geographical concentration
- Risks in the real estate market
- Cyclical economic environment



Landsbankinn – Mortgage

Iceland #=



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	2,989	Rating (Moody's)	-
Amount outstanding (EURm)	2,382	Rating (S&P)	Α
-thereof ≥ EUR 250m	12.6%	Rating (Fitch)	-
Current OC (nominal)	25.5%	Rating (DBRS)	-
Committed OC	20.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Iceland	Collateral score	-
Main region	40% Reykjavík	RRL	a-
Number of loans	17,203	JRL	a
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	31.5y	PCU	-
WAL (covered bonds)	2.4y	Recovery uplift	-
Fixed interest (cover pool)	1.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	89.5%	LCR eligible	Yes
LTV (indexed)	51.6%	LCR level (SBmk)	2A
LTV (unindexed)	48.1%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

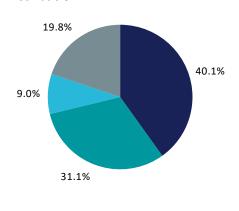
Borrower Types

3.7%



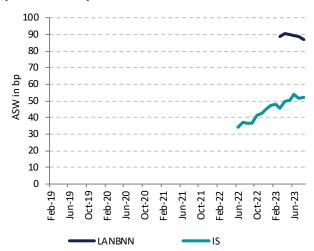
96.3%

Regional Distribution

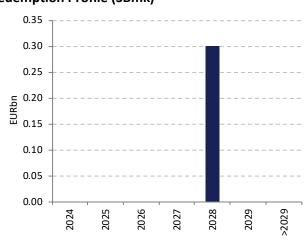


■Reykjavík ■Reykjanes ■Suðumes Peninsula ■ Others

Spread Development



Redemption Profile (SBmk)





Market Overview Covered Bonds

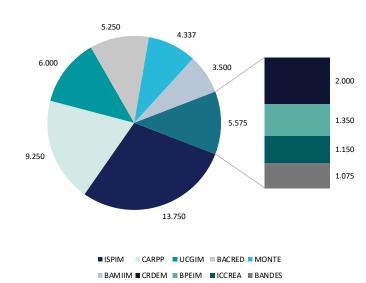
Italy |



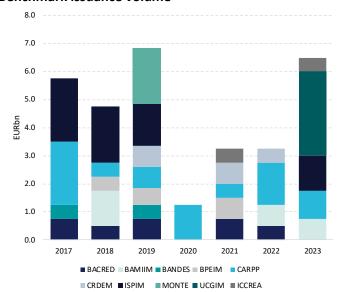
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 117.86bn	Outstanding volume (Bmk)	EUR 47.66bn
Amount outstanding	EUR 78.34bn	Number of benchmarks	57
Number of issuer	11	Outstanding ESG volume (Bmk)	EUR 1.25bn
No of cover pools	13	Number of ESG benchmarks	2
there of M / PS / others	13/0/0	Outstanding volume (SBmk)	EUR 0.30bn
Ratings (low / high)	AA-/AA	Number of subbenchmarks	1
Best possible LCR level	Level 1	Maturity types	SB, CPT

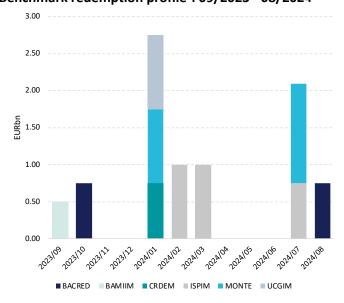
Outstanding benchmark volume¹ (EURbn)



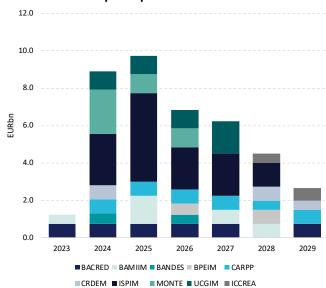
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





Banca Monte dei Paschi di Siena

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banca Monte dei Paschi di Siena SpA

	Rating	Outlook
Fitch	B+	Stable
Moody's*	B1	Positive
S&P	-	-

Homepage

www.gruppomps.it

*Senior Unsecured

Banca Monte dei Paschi di Siena S.p.A. (MPS), headquartered in Siena, is one of Italy's largest banks and is categorised as an "other systemically important institution" (O-SII). The Italian government is the majority shareholder in the institute with a stake of 64.2% (11 July 2023). The bank was actually supposed to have been re-privatised by the end of 2021, but takeover talks with UniCredit S.p.A. ultimately broke down. The bank's operating activities are focused on retail and corporate customers. MPS is primarily active in Italy but also supports corporate customers at selected global financial centres. The bank employs roughly 17,000 employees at around 1,400 branches and more than 127 specialised centres (FY 2022). According to information from MPS itself, it boasts a market share of 4.4% for current accounts (February 2023). The group is active in areas such as Leasing, Factoring, Corporate Finance and Investment Banking via specialised subsidiaries. MPS offers insurance products via a strategic partnership with AXA and investment products through a third party. Following an organisational restructuring, since 2022 the bank has reported across the business segments of Retail Banking (FY 2022: 40% of operating earnings), Wealth Management (4%), Corporate Banking (32%) and Large Corporate & Investment Banking (6%), as well as the Corporate Center (17%) segment. The strategic plan up to 2026 envisages a streamlined and simplified business model in addition to reducing risks and strengthening the balance sheet. In November 2022, MPS implemented another capital increase (EUR 2.5bn), in which both the Italian state and private investors participated.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	88,187	85,351	77,756
Total Securities	15,600	11,135	21,868
Total Deposits	82,230	75,599	74,708
Tier 1 Common Capital	5,992	7,601	7,118
Total Assets	137,869	120,173	124,286
Total Risk-weighted Assets	47,787	45,686	49,382

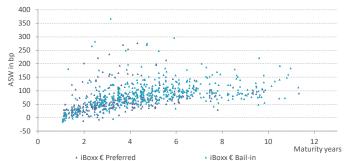
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	1,217	1,730	-
Net Fee & Commission Inc.	1,484	1,358	-
Net Trading Income	132	89	-
Operating Expense	2,628	2,533	-
Credit Commit. Impairment	190	432	-
Pre-tax Profit	258	-631	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.89	1.24	-	Liquidity Coverage Ratio	185.47	183.74	188.41
ROAE	5.09	-3.39	11.84	IFRS Tier 1 Leverage Ratio	4.44	6.42	-
Cost-to-Income	83.41	75.67	-	NPL/Loans at Amortised Cost	4.66	3.87	4.26
Core Tier 1 Ratio	12.54	16.64	14.41	Reserves/Loans at Amort. Cost	2.62	2.32	2.64

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Improved capitalisation
- Deposit basis

- Profitability
- Dependency on ECB funding



Banca Monte dei Paschi di Siena – Mortgage (CPT)

Italy

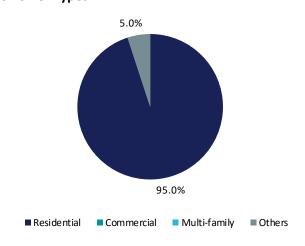


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

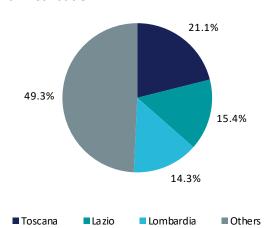
Cover Pool Data

Cover pool volume (EURm)	11,588	Rating (Moody's)	Aa3
Amount outstanding (EURm)	8,200	Rating (S&P)	-
-thereof ≥ EUR 500m	52.9%	Rating (Fitch)	AA-
Current OC (nominal)	41.3%	Rating (DBRS)	AA
Committed OC	20.5%	TPI	Very High
Cover type	Mortgage	TPI leeway	0 - 2
Main country	100% Italy	Collateral score	5.0%
Main region	21% Toscana	RRL	-
Number of loans	145,553	JRL	-
Number of borrowers	146,089	Unused notches	-
Avg. exposure to borrowers (EUR)	75,331	AAA credit risk (%)	-
WAL (cover pool)	17.8y	PCU	6
WAL (covered bonds)	2.8y	Recovery uplift	2
Fixed interest (cover pool)	51.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	55.1%	LCR eligible	Yes
LTV (indexed)	52.0%	LCR level (Bmk)	1
LTV (unindexed)	67.0%	Risk weight	10%
Loans in arrears	0.2%	Maturity structure (Bmk)	CPT

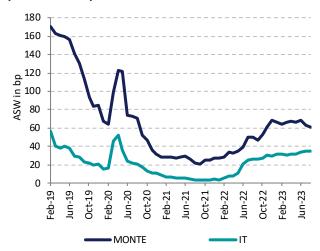
Borrower Types



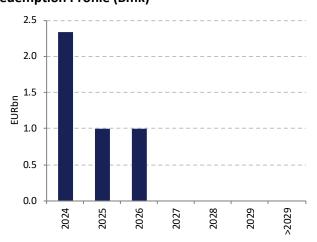
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco BPM

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco BPM SpA

	Rating	Outlook
Fitch	BBB-	Stable
Moody's	Ba1	Positive
S&P	-	-

Homepage

www.bancobpm.it

Banca Popolare di Milano Scarl (BPM) and Banco Popolare Societa Cooperativa (BP), both formerly organised along cooperative lines, merged with effect from 1 January 2017 and now operate under the name Banco BPM Group. The shares in the joint-stock company BPM are listed on the Italian stock exchange. As at 11 July 2023, Credit Agricole is the largest shareholder with a stake of just under 9.2%, followed by JPMorgan Chase & Co. with almost 5.0%. As measured by total assets (Q1 2023: EUR 198bn), BPM is the third largest bank in Italy and is considered a domestic systemically important bank (D-SIB). With an average of around 19,300 employees, BPM serves approximately 3.8 million customers in around 1,500 branches nationwide (Q1 2023). The geographic business focus of the bank is on the regions of northern Italy. As a universal bank, BPM offers a wide range of financial services, also through its various subsidiaries. As measured by pre-tax profit, the most important business segments are Retail (FY 2022: 23.5%), Corporate (24.0%) and Strategic Partnerships (11.1%). Furthermore, BPM reports in the segments Institutional, Private, Investment Banking, Insurance and Corporate Centre. BPM has been issuing ESG bonds on the basis of its Green, Social and Sustainability Framework since 2021. Funding (Q1 2023) to the tune of EUR 101.3bn is sourced from (retail & SME) customer deposits. In terms of BPM's outstanding bonds (EUR 21.5bn), 37.2% are covered bonds. In 2022, BPM took over Bipiemme Vita in full (bancassurance; today known as BPM Vita) and consequently exercised a purchase option for the remaining shares in the insurance companies VERA Vita and VERA Assicurazioni (closing expected in Q4 2023).

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	127,995	134,194	133,004
Total Securities	16,629	22,319	23,192
Total Deposits	114,941	109,375	114,414
Tier 1 Common Capital	9,387	8,618	8,386
Total Assets	200,489	189,808	198,490
Total Risk-weighted Assets	63,931	60,200	58,859

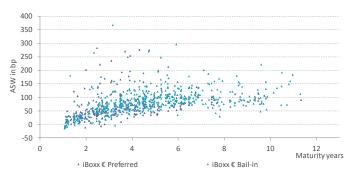
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	2,016	2,345	1,591
Net Fee & Commission Inc.	1,901	1,849	908
Net Trading Income	-43	-96	-44
Operating Expense	3,071	NA	1,512
Credit Commit. Impairment	635	NA	234
Pre-tax Profit	654	1.023	905

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.10	-	1.78	Liquidity Coverage Ratio	206.01	196.04	179.00
ROAE	4.44	5.32	9.40	IFRS Tier 1 Leverage Ratio	4.76	4.63	4.30
Cost-to-Income	67.50	-	57.03	NPL/Loans at Amortised Cost	4.99	3.57	3.19
Core Tier 1 Ratio	14.68	14.32	14.25	Reserves/Loans at Amort. Cost	2.72	2.07	1.89

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position (franchise)
- Liquidity
- Capitalisation

- Asset quality (positive trend)
- Profitability
- Cyclical nature of exposure to corporates and SMEs



Banco BPM - Mortgage (OBG2)

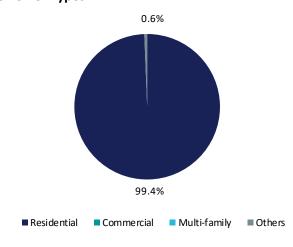
Italy |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

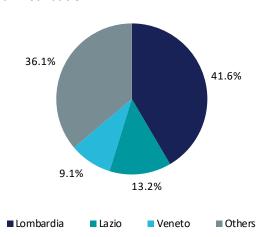
Cover Pool Data

Cover pool volume (EURm)	7,984	Rating (Moody's)	Aa3
Amount outstanding (EURm)	4,000	Rating (S&P)	-
-thereof ≥ EUR 500m	75.0%	Rating (Fitch)	-
Current OC (nominal)	99.6%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	42% Lombardia	RRL	-
Number of loans	82,381	JRL	-
Number of borrowers	81,575	Unused notches	-
Avg. exposure to borrowers (EUR)	97,262	AAA credit risk (%)	-
WAL (cover pool)	9.9y	PCU	-
WAL (covered bonds)	2.0y	Recovery uplift	-
Fixed interest (cover pool)	79.3%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	66.6%	LCR level (Bmk)	1
LTV (unindexed)	96.3%	Risk weight	10%
Loans in arrears	0.5%	Maturity structure (Bmk)	SB

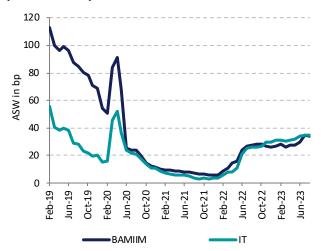
Borrower Types



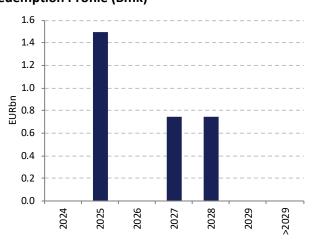
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco Desio

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco di Desio e della Brianza SpA

	Rating	Outlook
Fitch	BB+	Stable
Moody's	-	-
S&P	-	-

Homepage

www.bancodesio.it

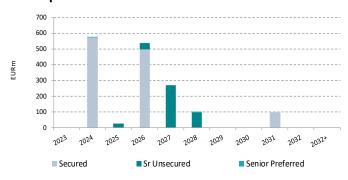
Banco di Desio e della Brianza S.p.A. (Banco Desio), which has been listed on the Italian stock exchange since 1995, is the parent company of the Banco Desio Group. It is a small, traditional, commercial bank in Italy with a national market share of 0.7% (FY 2022) for lending. Just over 50% of the group (11 July 2023) is owned by Brianza Unione di Luigi Gavazzi e Stefano Lado SApA. The group offers a wide range of banking, financial, asset management and insurance products, with a special focus on private individuals, small businesses, SMEs and corporate clients. The group is represented by 280 branches in ten regions of Italy (Q1 2023). A total of 48 branches were acquired by Banco Desio from the BPER Group in February of this year. Most branches are located in Lombardy, followed by Umbria and Lazio. In addition to the main business segment, Banking (FY 2022: 104.5% of pre-tax profit), the group also reports in the segments Parabanking (4.8%) and Consolidation adjustments (-9.3%). The Banking segment contains the profits generated by the parent company Banco Desio in addition to the covered bond issuer Desio OBG S.r.I (60% share) and the SPV for securitisations Coppede S.r.l., while the Parabanking segment includes the wholly owned subsidiary Fides (financial intermediary primarily for consumer loans). Private individuals (34%; FY 2022) and small businesses (< EUR 1.5m in sales; 29%) and SME (≥ EUR 1.5m up to < EUR 50m in sales; 22%) account for the majority of the loan portfolio. In terms of the loans to private individuals, 74% are residential mortgages.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	13,885	14,027	14,868
Total Securities	679	1,022	1,022
Total Deposits	10,978	11,167	12,616
Tier 1 Common Capital	1,127	1,133	1,248
Total Assets	17,805	17,541	19,805
Total Risk-weighted Assets	7,217	7,668	7,923

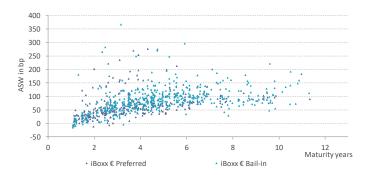
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	254	285	81
Net Fee & Commission Inc.	188	181	46
Net Trading Income	-2	-10	0
Operating Expense	319	332	89
Credit Commit. Impairment	86	42	12
Pre-tax Profit	60	110	85

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.53	1.63	1.83	Liquidity Coverage Ratio	199.88	175.09	188.18
ROAE	5.14	7.35	52.61	IFRS Tier 1 Leverage Ratio	6.34	6.47	6.31
Cost-to-Income	68.59	68.56	47.81	NPL/Loans at Amortised Cost	3.25	2.81	2.93
Core Tier 1 Ratio	15.62	14.77	15.75	Reserves/Loans at Amort. Cost	2.43	2.10	-

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 31.07.2023$

Strengths / Opportunities

- Funding
- Capitalisation
- Diversified income sources

- Competition with larger banks
- Regional concentration
- Italy-focused sovereign bond portfolio



Banco Desio – Mortgage

Italy



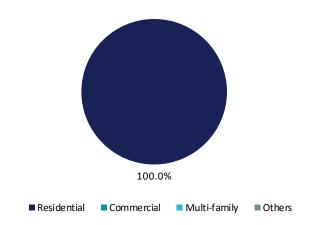
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

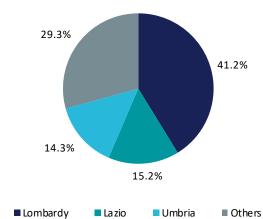
Cover	Pool	l Data
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Cover pool volume (EURm)	1,574	Rating (Moody's)	-
Amount outstanding (EURm)	1,175	Rating (S&P)	-
-thereof ≥ EUR 500m	91.5%	Rating (Fitch)	AA
Current OC (nominal)	34.0%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Italy	Collateral score	-
Main region	41% Lombardy	RRL	-
Number of loans	17,216	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	15.9y	PCU	6
WAL (covered bonds)	2.8y	Recovery uplift	2
Fixed interest (cover pool)	74.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	58.6%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

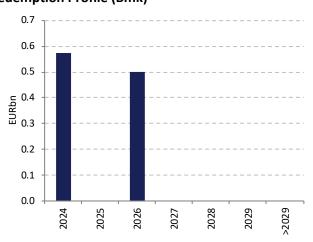




Spread Development

ASW in bp ASW in bp

Redemption Profile (Bmk)





BPER Banca

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

BPER Banca

	Rating	Outlook
Fitch	BBB-	Stable
Moody's	Ba1	Negative
S&P	-	-

Homepage

www.bper.it

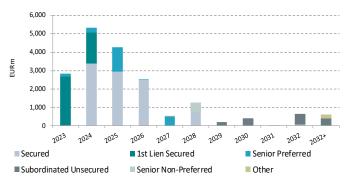
Listed on the stock exchange in Milan, BPER Banca S.p.A. is the fourth-largest banking group in Italy as measured by assets (Q1 2023: EUR 151bn in total assets). As at 11 July 2023, the largest shareholders in the bank were the Unipol Group (18.9%) and Fondazione di Sardegna (10.2%). In the wake of several acquisitions, the bank expanded its area of influence in Italy, where it now operates around 1,900 branches (FY 2022). The relevant acquisitions include the takeover of Banca Carige (1,603 branches; FY 2022), Banco di Sardegna (308) and Banca Cesare Ponti (2). Moreover, the group has specialist subsidiaries that supplement the product portfolio beyond banking services (e.g., products from the areas of asset management, credit management, leasing and factoring). BPER Banca reports across the segments of Retail, Private, Corporate, Large Corporate, Finance, Corporate Centre and Other Assets. In terms of funding, the bank makes extensive use of deposits, resulting in a loan-to-deposit ratio of 79% (Q1 2023). Direct deposits (EUR 113.5bn) comprise Retail (75%) and Corporate (25%) deposits, while indirect deposits (EUR 167.5bn) are made up of AuM and Life Insurance (51%) in addition to Assets under Construction for Finance Leasing (49%). At the start of 2022, BPER Banca joined the Net-Zero Banking Alliance, which is targeting net zero CO₂ issuances by 2050. Moreover, the bank is striving to reduce its CO₂ emissions by at least 23% by the year 2025.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	93,859	105,962	104,380
Total Securities	7,974	11,223	10,812
Total Deposits	96,461	107,415	104,959
Tier 1 Common Capital	6,576	6,613	7,139
Total Assets	136,348	152,303	151,139
Total Risk-weighted Assets	45,341	53,025	53,518

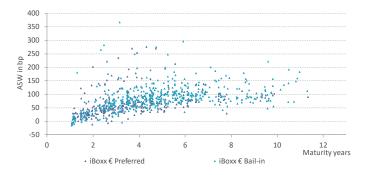
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	1,505	1,826	726
Net Fee & Commission Inc.	1,642	1,922	497
Net Trading Income	193	141	62
Operating Expense	2,437	3,137	867
Credit Commit. Impairment	855	588	145
Pre-tay Profit	693	1 388	388

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.23	1.28	2.07	Liquidity Coverage Ratio	200.79	208.79	206.57
ROAE	8.20	19.35	14.45	IFRS Tier 1 Leverage Ratio	4.85	4.38	4.76
Cost-to-Income	68.70	74.97	61.95	NPL/Loans at Amortised Cost	4.29	2.83	2.90
Core Tier 1 Ratio	14.50	12.47	13.34	Reserves/Loans at Amort. Cost	2.98	2.23	2.35

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Liquidity
- Funding

- Profitability
- Operating risks on the back of acquisition strategy
- Loan quality



BPER Banca - Mortgage

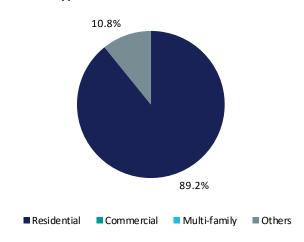
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Italy |

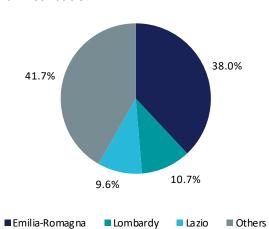
Cover Pool Data

Cover pool volume (EURm)	5,399	Rating (Moody's)	Aa3
Amount outstanding (EURm)	4,250	Rating (S&P)	-
-thereof ≥ EUR 500m	31.8%	Rating (Fitch)	-
Current OC (nominal)	27.0%	Rating (DBRS)	AA
Committed OC	20.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	38% Emilia-Romagna	RRL	-
Number of loans	64,510	JRL	-
Number of borrowers	64,112	Unused notches	-
Avg. exposure to borrowers (EUR)	75,151	AAA credit risk (%)	-
WAL (cover pool)	16.4y	PCU	-
WAL (covered bonds)	2.2y	Recovery uplift	-
Fixed interest (cover pool)	56.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	72.9%	LCR eligible	Yes
LTV (indexed)	47.4%	LCR level (Bmk)	1
LTV (unindexed)	47.5%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

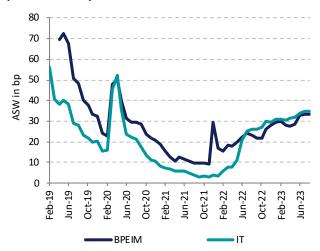
Borrower Types



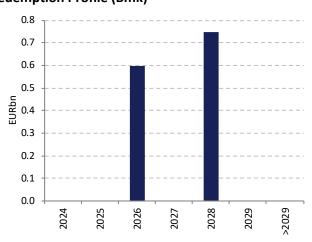
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Credit Agricole Italia

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Credit Agricole Italia SpA

	Rating	Outlook
Fitch	-	-
Moody's*	Baa1	Negative
S&P	-	-

Homepage

www.credit-agricole.it

*LT Bank Deposits

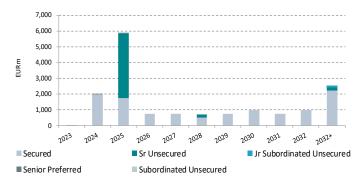
Credit Agricole Italia (CA Italia) is part of the Crédit Agricole Italia Banking Group (CAIBG) and is an Italian subsidiary of the French institute Crédit Agricole S.A., which holds 78.1% of the shares (FY 2022). Crédit Agricole defines Italy as its second domestic market and CA Italia as the institute with the most responsibility for the Italian market. CA Italia also includes other subsidiaries such as Credit Agricole Group Solutions and Credit Agricole Leasing. CAIBG employs around 12,700 staff, who serve some 2.7 million clients in around 1,100 branches in Italy (FY 2022), although the focus of the branch network is increasingly geared towards the north of Italy and Sicily. The group offers products and services for retail customers, entrepreneurs and SMEs, as well as corporate clients and agricultural enterprises. The net profit for the year at CAIBG can be broken down into the following segments: Retail and Private Banking (FY 2022: 67%), Corporate Banking (20%), Other (-10%) and Non-Recurring Elements (22%). In May 2021, CA Italia acquired 100% of the shares in Credito Valtellinese (CreVal). The process of merging CreVal into the CA Italia structure was finalised in 2022, raising the market share in Italy to 5% in the process. Moreover, CAIBG has a market penetration rate of 7% in each case for home loans and agrifood loans (FY 2022). Refinancing activities at CAIBG are based on customers' short-term deposits (80%) and saving deposits (4%; FY 2022). As part of its sustainability activities, the CA Group regularly issues green bonds (outstanding volume: EUR 9.2bn), which are offset by green loans of EUR 23.1bn (FY 2022). In March 2021, CA Italia issued an inaugural green covered bond.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	58,307	77,800	75,996
Total Securities	4,626	5,017	4,749
Total Deposits	44,477	63,323	62,145
Tier 1 Common Capital	3,814	3,988	4,640
Total Assets	76,454	104,943	96,653
Total Risk-weighted Assets	27 337	34 456	35 710

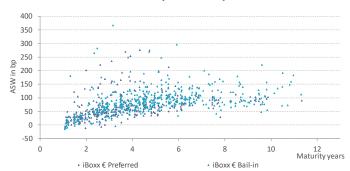
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	972	1,123	1,301
Net Fee & Commission Inc.	880	1,145	1,222
Net Trading Income	-2	-74	50
Operating Expense	1,541	2,204	2,046
Credit Commit. Impairment	388	459	297
Pre-tax Profit	30	344	581

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.38	1.32	1.39	Liquidity Coverage Ratio	242.35	262.05	297.39
ROAE	-0.68	8.82	7.46	IFRS Tier 1 Leverage Ratio	5.19	3.91	5.02
Cost-to-Income	69.35	86.86	69.81	NPL/Loans at Amortised Cost	5.22	3.76	3.51
Core Tier 1 Ratio	13.95	11.57	12.99	Reserves/Loans at Amort. Cost	3.10	1.56	1.84

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Liquidity
- Support from the Credit Agricole Group

- Capitalisation
- National sovereign bond portfolio (volatility)



Credit Agricole Italia – Mortgage

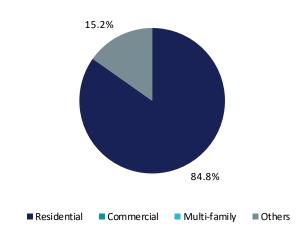
Italy |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

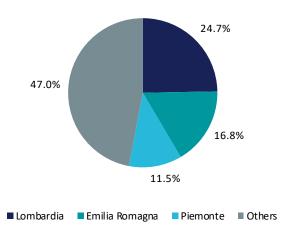
Cover Pool Data

Cover pool volume (EURm)	15,685	Rating (Moody's)	Aa3
Amount outstanding (EURm)	12,000	Rating (S&P)	-
-thereof ≥ EUR 500m	77.1%	Rating (Fitch)	-
Current OC (nominal)	30.7%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Italy	Collateral score	5.0%
Main region	25% Lombardia	RRL	-
Number of loans	168,543	JRL	-
Number of borrowers	166,573	Unused notches	-
Avg. exposure to borrowers (EUR)	79,833	AAA credit risk (%)	-
WAL (cover pool)	7.5y	PCU	-
WAL (covered bonds)	6.0y	Recovery uplift	-
Fixed interest (cover pool)	60.5%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	77.1%	LCR eligible	Yes
LTV (indexed)	53.2%	LCR level (Bmk)	1
LTV (unindexed)	51.9%	Risk weight	10%
Loans in arrears	0.7%	Maturity structure (Bmk)	SB

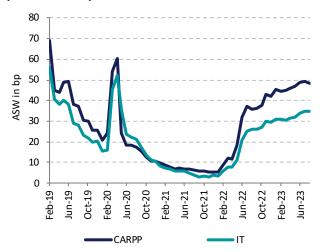
Borrower Types



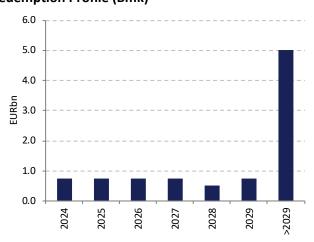
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Credito Emiliano

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Credito Emiliano SpA

	Rating	Outlook
Fitch	BBB	Stable
Moody's*	Baa2	Negative
S&P	-	-

Homepage

www.credem.it

*LT Bank Deposits

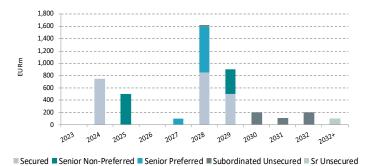
Founded in 1910, Credito Emiliano S.p.A. (Credem) is a financial institution headquartered in Reggio Emilia, which is the provincial capital of the northern Italian region of Emilia-Romagna. Credem has been listed on the Italian stock exchange since October 1997. The largest shareholder in the bank is Credito Emiliano Holding S.p.A., which holds a stake of 74.9% (as at 12 July 2023). Credem (Q1 2023: 66% of operating earnings) is the main unit of the Gruppo Bancario Credem, which includes a range of subsidiaries. The group focuses on the areas of commercial banking (including Credito Emiliano, Credemleasing, Credemfactor, among others) and wealth management (including Euromobiliare Asset Management, Credem Private Equity, Credemvita, among others). With over 6,600 employees (Q1 2023) and around 1,600 financial advisors and agents, the group serves more than 1.3 million customers across almost 590 branches and corporate centres (plus 82 "CredemPoints" and financial outlets). In addition to the traditional banking business, digital sales channels are becoming an increasingly important focus of the group. At the end of March 2023, 94.5% of all transactions in the group took place via digital channels (including online and mobile banking). Credem reports across the business segments of Commercial Banking, Asset Management, Bancassurance, Finance, Treasury as well as Corporate Center and Other. In geographical terms, the credit exposure was largely attributable to Italy (88%; FY 2022), with other European countries (6%) and America (4%) accounting for lesser shares. The funding mix at group level comprises retail funding (70%; Q1 2023) and wholesale funding (26%). In 2022, Credem issued a social bond (subordinated tier II bond) and an inaugural green bond (covered bond) on the basis of its ESG framework.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	40,189	42,430	40,734
Total Securities	6,955	14,925	14,312
Total Deposits	37,714	38,779	38,868
Tier 1 Common Capital	2,868	2,916	2,932
Total Assets	67,579	64,818	67,945
Total Risk-weighted Assets	18,747	18,791	18,904

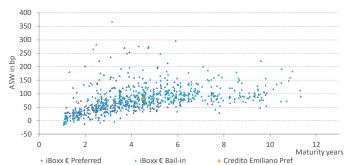
Income Statement

meonic statement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	490	-	251
Net Fee & Commission Inc.	635	-	166
Net Trading Income	414	-	62
Operating Expense	1,053	-	290
Credit Commit. Impairment	32	-	9
Pre-tax Profit	466	-	199

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.94	-	1.58	Liquidity Coverage Ratio	245.64	232.00	251.00
ROAE	10.84	9.90	15.96	IFRS Tier 1 Leverage Ratio	4.31	4.58	4.39
Cost-to-Income	74.25	-	58.31	NPL/Loans at Amortised Cost	1.96	1.73	1.78
Core Tier 1 Ratio	15.30	15.52	15.51	Reserves/Loans at Amort. Cost	1.29	-	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Asset quality

- Economic environment in Italy
- Profitability



Credito Emiliano - Mortgage

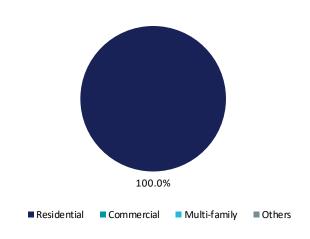
Italy |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

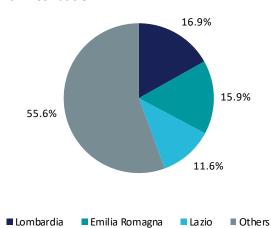
Cover Pool Data

Cover pool volume (EURm)	4,411	Rating (Moody's)	Aa3
Amount outstanding (EURm)	2,100	Rating (S&P)	-
-thereof ≥ EUR 500m	95.2%	Rating (Fitch)	AA
Current OC (nominal)	110.0%	Rating (DBRS)	-
Committed OC	753.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	17% Lombardia	RRL	-
Number of loans	57,359	JRL	-
Number of borrowers	57,307	Unused notches	-
Avg. exposure to borrowers (EUR)	76,969	AAA credit risk (%)	-
WAL (cover pool)	8.1y	PCU	6
WAL (covered bonds)	3.9y	Recovery uplift	2
Fixed interest (cover pool)	72.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	45.5%	LCR level (Bmk)	1
LTV (unindexed)	40.4%	Risk weight	10%
Loans in arrears	0.5%	Maturity structure (Bmk)	SB

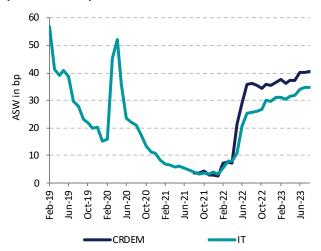
Borrower Types



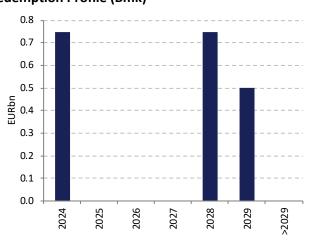
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Iccrea Banca/Gruppo BCC Iccrea

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Iccrea Banca SpA

	Rating	Outlook
Fitch	BB+	Stable
Moody's	-	-
S&P	BB+	Stable

Homepage

www.iccreabanca.it

Iccrea Banca S.p.A. is the parent company and central entity of the Iccrea Cooperative Banking Group (ICBG). On the basis of a cohesion agreement, the group is composed of Iccrea Banca and, as of 31 December 2022, of 118 affiliated cooperative banks. The agreement regulates the mutual rights, permissions and obligations and includes joint and several liability as well as mutual support within the group to ensure solvency and liquidity. ICBG has the largest national cooperative franchise and is the fourth largest Italian banking group by total assets (FY/2022). Over 22,000 employees serve approximately 5.2 million customers in more than 2,400 branches as of FY/2022. Reported in the operating segments "Corporate" (4% of pre-tax profit; FY/2022), "Institutional" (23%), "Retail" (3%) and "Mutual Banks" (72%). At Group level, just under EUR 95bn in customer loans (FY/2022, market share in Italy: 6.1%) are offset by around EUR 121bn in "Direct Funding from Customers". Loans to SMEs occupy the largest position with 46% (FY/2022) of the loan portfolio, followed by private households with 39%. Mortgages represent about 75% of ICBG's total loan portfolio. Customer deposits (national market share: 6.4%) make up the bulk of direct funding at 91% (FY/2022), while issued securities and other liabilities account for 8% and 1%, respectively. ICBG has been active in the field of ESG bonds since November 2021 and has since placed two social bonds, one of which in 2023, with a volume of EUR 500m each. The bank has a NSFR of 145%, a Texas ratio (net NPLs/net tangible equity) of 11% and a NPL coverage ratio of 68.9% as of Q1/2023.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers*	88,758	90,869	90,300
Total Securities*	9,196	11,306	9,801
Total Deposits	117,436	119,117	119,612
Tier 1 Common Capital	11,246	12,286	12,210
Total Assets	178,985	173,542	171,466
Total Risk-weighted Assets	63,670	63,891	63,426

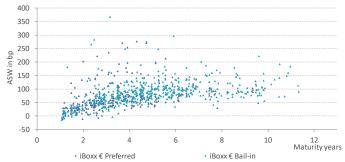
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	2,761	3,694	957
Net Fee & Commission Inc.	1,286	1,338	338
Net Trading Income	470	45	-
Operating Expense	3,155	3,310	712
Credit Commit. Impairment	1,250	489	22
Pre-tax Profit	438	1,569	593

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.66	2.22	-	Liquidity Coverage Ratio	289.15	230.50	250.00
ROAE	4.38	15.92	16.39	IFRS Tier 1 Leverage Ratio	6.31	7.11	-
Cost-to-Income	65.13	61.12	53.70	NPL/Loans at Amortised Cost	4.32	3.17	-
Core Tier 1 Ratio	17.66	19.23	19.25	Reserves/Loans at Amort. Cost	3.41	2.61	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023; *Issuer data

Strengths / Opportunities

Deposit base

Risks / Weaknesses

Diversification of revenue sources



Iccrea Banca – Mortgage

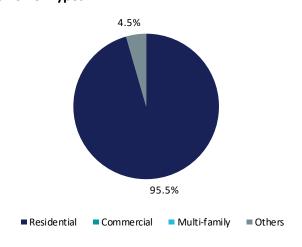
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Italy |

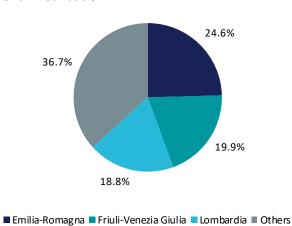
Cover Pool Data

Cover pool volume (EURm)	1,759	Rating (Moody's)	Aa3
Amount outstanding (EURm)	500	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	251.8%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	Unpublished
Main country	100% Italy	Collateral score	6.6%
Main region	25% Emilia-Romagna	RRL	-
Number of loans	15,332	JRL	-
Number of borrowers	15,217	Unused notches	-
Avg. exposure to borrowers (EUR)	110,426	AAA credit risk (%)	-
WAL (cover pool)	18.8y	PCU	-
WAL (covered bonds)	5.5y	Recovery uplift	-
Fixed interest (cover pool)	56.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	56.7%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

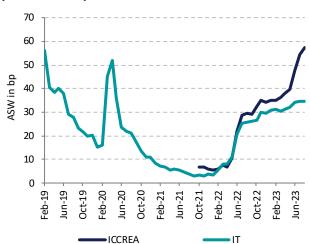
Borrower Types



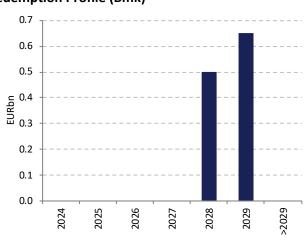
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Intesa Sanpaolo

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Intesa Sanpaolo SpA

	Rating	Outlook
Fitch	BBB	Stable
Moody's	Baa1	Negative
S&P	BBB	Stable

Homepage

Intesasanpaolo.com

Italy



As measured by its balance sheet total (Q1 2023: EUR 955bn), Intesa Sanpaolo S.p.A. (Intesa) is Italy's largest banking group and is classified as a domestic systemically important bank (D-SIB). The largest shareholders in the bank, which is listed on the Italian Stock Exchange in Milan, are Compagnia di San Paolo (12 July 2023: 6.5%) and BlackRock (5.3%). The universal bank conducts its business across approximately 3,500 national and roughly 950 international branches, serving 13.6 million customers on the domestic market and a further 7.1 million customers (Q1 2023) on a global basis in the process. The bank serves retail customers in 12 countries and corporate clients in 25 countries (in particular the Middle East and North Africa). At both national and international level, Intesa operates various subsidiaries that offer a range of different financial services. The bank's business activities are divided into seven business divisions: Banca dei Territori (domestic Commercial Banking, Retail, Exclusive and SME clients), IMI Corporate and Investment Banking, (corporate clients, public administration and financial institutions), International Subsidiary Banks, Private Banking, Insurance, Asset Management and Corporate Centre (which includes the Group Treasury). In geographical terms, Italy accounts for 78% of operating income (FY 2022) and is therefore the most important jurisdiction for the bank. Moreover, the bank holds a market-leading position in Italy in the areas of loans (Q1 2023: 19% market share), deposits (22%), asset management (25%), pension funds (24%) and factoring (26%). A total of 83% of the funding mix (Q1 2023) consists of retail funding, with wholesale funding accounting for a share of 17%. Furthermore, Intesa diversifies its funding mix through the issuance of ESG

Income Statement

Credit Commit. Impairment

Pre-tax Profit

Balance Sheet (EURm) 2021Y 2022Y 2023H1 **Net Loans to Customers** 506,725 497,803 **Total Securities** 120,601 94,865 **Total Deposits** 458.243 457,030 448,631 Tier 1 Common Capital 47.247 40.772 40,600 **Total Assets** 1,069,003 975,683 955.205 **Total Risk-weighted Assets** 326,903 295,443 295,800

(EURm) 2021Y 2022Y 2023H1 Net Interest Income 7,993 9,685 Net Fee & Commission Inc. 9,364 8,577 **Net Trading Income** 1,339 586 **Operating Expense** 14.024 13,358

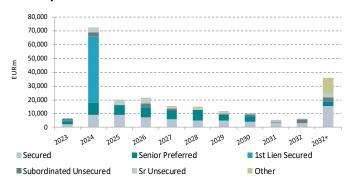
2,716

5,181

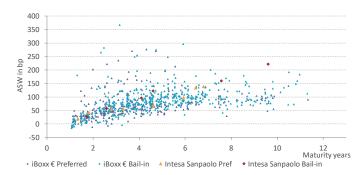
2,788

6,007

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.02	1.22	-	Liquidity Coverage Ratio	184.17	181.87	-
ROAE	6.11	6.86	13.72	IFRS Tier 1 Leverage Ratio	4.61	4.37	-
Cost-to-Income	63.28	59.27	-	NPL/Loans at Amortised Cost	3.02	2.15	2.09
Core Tier 1 Ratio	14.45	13.80	13.73	Reserves/Loans at Amort. Cost	2.09	1.57	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Domestic market positioning
- Funding
- Diversification of income sources

- Concentration risks (Italy)
- Capitalisation
- Operational environment (Italy)



Intesa Sanpaolo – Mortgage (ISP CB Ipotec.)

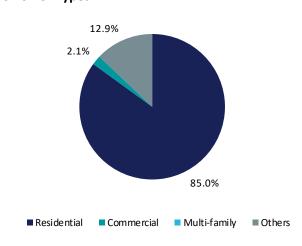
Italy |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

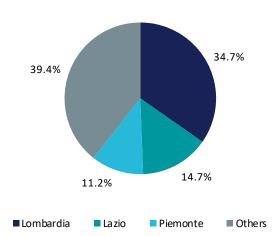
Cover Pool Data

Cover pool volume (EURm)	18,643	Rating (Moody's)	Aa3
Amount outstanding (EURm)	14,310	Rating (S&P)	-
-thereof ≥ EUR 500m	54.2%	Rating (Fitch)	-
Current OC (nominal)	30.3%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	35% Lombardia	RRL	-
Number of loans	216,387	JRL	-
Number of borrowers	210,484	Unused notches	-
Avg. exposure to borrowers (EUR)	77,136	AAA credit risk (%)	-
WAL (cover pool)	9.2y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	76.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	58.4%	LCR eligible	Yes
LTV (indexed)	63.3%	LCR level (Bmk)	1
LTV (unindexed)	63.3%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

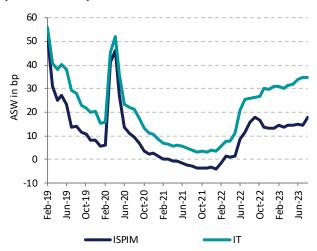
Borrower Types



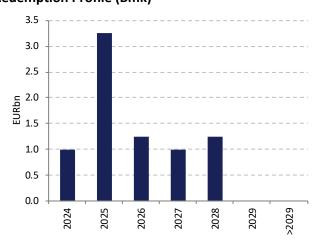
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Intesa Sanpaolo – Mortgage (UBI Finance)

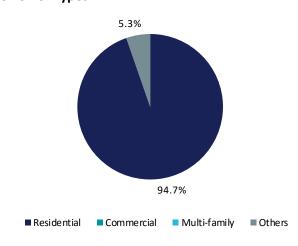
Italy |

Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

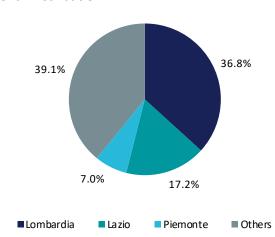
Cover Pool Data

Cover pool volume (EURm)	8,638	Rating (Moody's)	Aa3
Amount outstanding (EURm)	6,450	Rating (S&P)	-
-thereof ≥ EUR 500m	93.0%	Rating (Fitch)	-
Current OC (nominal)	33.9%	Rating (DBRS)	AA
Committed OC	13.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	37% Lombardia	RRL	-
Number of loans	115,962	JRL	-
Number of borrowers	112,028	Unused notches	-
Avg. exposure to borrowers (EUR)	73,005	AAA credit risk (%)	-
WAL (cover pool)	8.8y	PCU	-
WAL (covered bonds)	3.3y	Recovery uplift	-
Fixed interest (cover pool)	45.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	96.9%	LCR eligible	Yes
LTV (indexed)	46.8%	LCR level (Bmk)	1
LTV (unindexed)	65.5%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

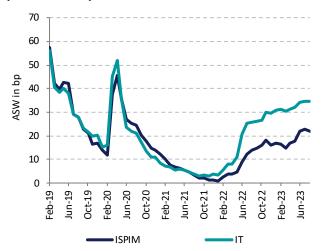
Borrower Types



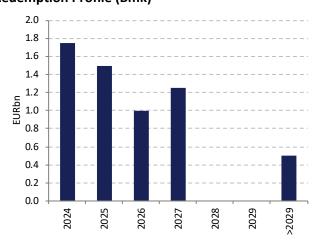
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Mediobanca

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Mediobanca Banca di Credito Finanziario SpA

	Rating	Outlook
Fitch	BBB	Stable
Moody's	Baa1	Negative
S&P	BBB	Stable

Homepage

www.mediobanca.com

Mediobanca S.p.A. (MB) was established in 1946. It is a financial group active at international level offering its customers services in the areas of Wealth Management, Consumer Banking as well as Corporate and Investment Banking. The bank has been listed on the Italian stock exchange since 1956 and employs around 5,250 staff (H1 2023). The main shareholders in the institute are Delfin S.a.r.l. (12 July 2023: 20.2%), in addition to Francesco Gaetano Caltagirone (5.7%) and BlackRock (4.2%). Over the past few years, the group has strengthened its international presence as a result of various acquisitions. For example, most recently MB finalised the acquisition of Bybrook Capital LLP (London-based NPL manager) in the first quarter of 2022. MB reports across the following segments: Wealth Management (15.7% of pre-tax profit), Consumer Banking (38.8%), Corporate & Investment Banking (29.5%) and Principal Investing (24.5%), as well as Holding Functions (-7.4%) and Write-offs (-1%). Wholesale banking (34%; H1 2023), private mortgage loans (22%) and consumer lending (26%) account for the majority of the loan portfolio. Geographically, 64% of exposure to customers is attributable to the Italian market. In March 2023, the funding mix was primarily based on deposits in the area of Wealth Management and bond issuances (47% and 37% respectively). MB has been active in the area of ESG bonds since 2020. For example, two senior preferred bonds have been issued in this time, one as a social bond and one in the form of a green bond (volumes of EUR 500m in each case). Furthermore, with a stake of 13.3% (as at 12 July 2023), MB is the largest shareholder in Assicurazioni Generali S.p.A., Italy's largest insurance group. The financial year of Mediobanca ends on 30 June.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Y
Net Loans to Customers	51,920	57,279	59,482
Total Securities	16,881	15,162	14,878
Total Deposits	29,586	36,444	38,108
Tier 1 Common Capital	7,689	7,894	7,953
Total Assets	82,599	90,568	93,738
Total Risk-weighted Assets	47,159	50,378	52,574

Income Statement (EURm) 2021Y 2022Y 2023Y Net Interest Income 1.418 1.494 842 Net Fee & Commission Inc. 585 668 383 **Net Trading Income** 202 _9 109 1,410 1,478 775 **Operating Expense**

277

1.081

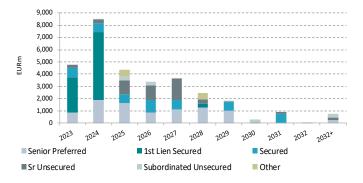
201

1,162

136

748

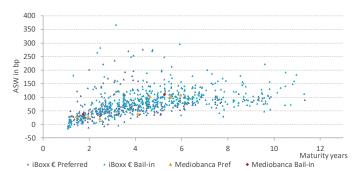
Redemption Profile



Senior Unsecured Bonds (EUR BMK)

Credit Commit. Impairment

Pre-tax Profit



Company Ratios

	2021Y	2022Y	2023Y		2021Y	2022Y	2023Y
Net Interest Margin	1.90	1.86	1.95	Liquidity Coverage Ratio	158.54	151.54	156.93
ROAE	7.68	8.27	11.14	IFRS Tier 1 Leverage Ratio	10.19	9.52	9.33
Cost-to-Income	49.69	51.92	46.75	NPL/Loans at Amortised Cost	3.85	2.96	2.63
Core Tier 1 Ratio	16.31	15.67	15.13	Reserves/Loans at Amort. Cost	3.19	2.81	2.77

Source: Bloomberg, S&P Global Market Intelligence (24.08.2023), NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Diversified income sources
- Asset quality in a peer comparison

- Dependency on wholesale funding
- Credit risk concentration
- Economic environment in Italy



Mediobanca – Mortgage

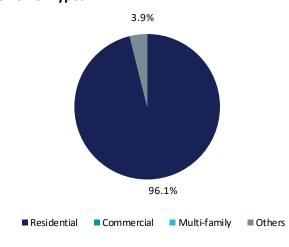
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Italy |

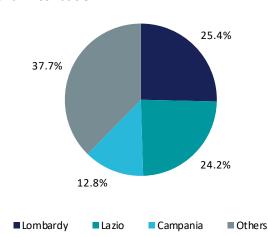
Cover Pool Data

Cover pool volume (EURm)	7,399	Rating (Moody's)	-
Amount outstanding (EURm)	5,250	Rating (S&P)	-
-thereof ≥ EUR 500m	85.7%	Rating (Fitch)	AA
Current OC (nominal)	40.9%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Italy	Collateral score	-
Main region	25% Lombardy	RRL	-
Number of loans	72,757	JRL	-
Number of borrowers	72,419	Unused notches	-
Avg. exposure to borrowers (EUR)	98,202	AAA credit risk (%)	-
WAL (cover pool)	19.5y	PCU	6
WAL (covered bonds)	3.9y	Recovery uplift	2
Fixed interest (cover pool)	59.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	52.9%	LCR level (Bmk)	1
LTV (unindexed)	65.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

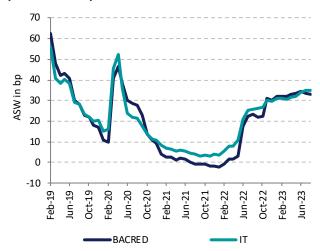
Borrower Types



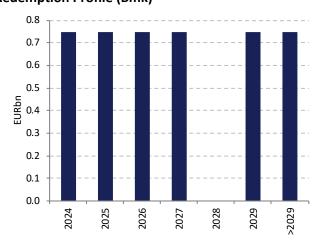
Regional Distribution



Spread Development



Redemption Profile (Bmk)





UniCredit

Italy



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

UniCredit SpA

	Rating	Outlook
Fitch	BBB	Stable
Moody's*	Baa1	Negative
S&P	BBB	Stable

Homepage

www.unicreditgroup.eu

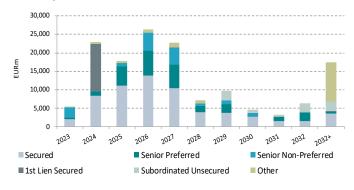
*Senior Unsecured/LT Bank Deposits UniCredit S.p.A. is the second-largest Italian banking group as measured by total assets (Q1 2023) and the country's only global systemically important bank (G-SIB; 1% additional capital requirement). The largest shareholders in the group, which is listed on the stock exchanges of Milan, Frankfurt and Warsaw, are BlackRock (12 July 2023: 5.9%) and Dodge & Cox (5.70%). As a globally active universal bank with a strong focus on Europe, UniCredit employs around 81,000 staff, who serve 15 million customers overall (FY 2022). In total, the group owns 13 banks. As at FY 2022, UniCredit adapted the structure of its primary business segments in order to isolate its Russia-based activities. For example, UniCredit now reports across the segments of Italy (59% of pre-tax profit), Germany (25%), Central Europe (19%), Eastern Europe (12%) and Russia (-4%). Moreover, the group further divides its business activities into the Group Corporate Centre and Non-Core segments. In geographical terms, Italy (39%; FY 2022), Germany (30%) and Austria (15%) accounts for more than three quarters of the loan portfolio. In the first quarter of 2023, customer deposits made up 54% of total assets, with a further 17% attributable to bank deposits. Covered bonds and senior unsecured bonds dominate (41% and 35% respectively) the medium and long-term wholesale funding of UniCredit. The funding mix is diversified by way of ESG bonds, which are also issued via the subsidiaries. For the period 2022 through to 2024, UniCredit plans to issue sustainable bonds in the amount of EUR 50.0bn, with a total of EUR 15.7bn having already been issued by the end of the first quarter of 2023. The group issues covered bonds from four jurisdictions: Italy, Germany, Poland and Slovakia.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	530,332	532,645	450,846
Total Securities	148,149	115,217	214,076
Total Deposits	513,677	518,947	514,138
Tier 1 Common Capital	50,933	51,442	-
Total Assets	917,227	857,773	843,506
Total Risk-weighted Assets	321,992	308,466	294,800

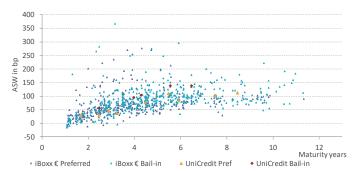
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	9,091	10,624	-
Net Fee & Commission Inc.	6,703	6,687	-
Net Trading Income	1,291	2,243	-
Operating Expense	12,854	11,546	-
Credit Commit. Impairment	1,656	1,989	-
Dro-tay Drofit	1 779	7 289	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.00	1.19	-	Liquidity Coverage Ratio	182.08	160.66	-
ROAE	3.45	10.32	13.87	IFRS Tier 1 Leverage Ratio	5.84	6.17	-
Cost-to-Income	68.84	54.88	-	NPL/Loans at Amortised Cost	3.37	2.39	2.69
Core Tier 1 Ratio	15.82	16.68	-	Reserves/Loans at Amort. Cost	2.50	2.20	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Geographical diversification
- Capitalisation
- · Liquidity buffer

- Russia exposure
- Exposure in regions with high-level economic risks
- Operational environment (primarily Italy)



UniCredit - Mortgage (OBG1)

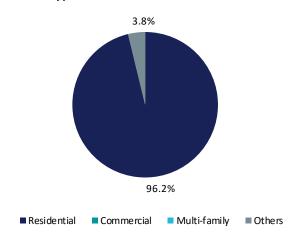
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Italy |

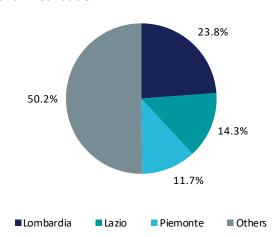
Cover Pool Data

Cover pool volume (EURm)	5,534	Rating (Moody's)	Aa3
Amount outstanding (EURm)	2,606	Rating (S&P)	AA-
-thereof ≥ EUR 500m	38.4%	Rating (Fitch)	AA
Current OC (nominal)	112.4%	Rating (DBRS)	-
Committed OC	21.2%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	5.0%
Main region	24% Lombardia	RRL	a-
Number of loans	95,501	JRL	a-
Number of borrowers	95,180	Unused notches	1
Avg. exposure to borrowers (EUR)	55,939	AAA credit risk (%)	12.1%
WAL (cover pool)	6.3y	PCU	6
WAL (covered bonds)	0.7y	Recovery uplift	2
Fixed interest (cover pool)	25.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	41.2%	LCR level (Bmk)	1
LTV (unindexed)	36.3%	Risk weight	10%
Loans in arrears	0.9%	Maturity structure (Bmk)	SB

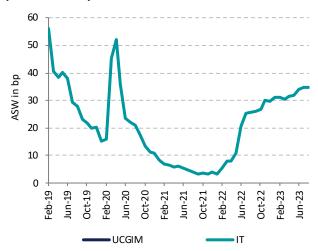
Borrower Types



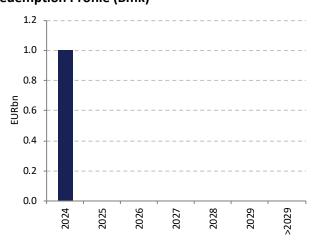
Regional Distribution



Spread Development



Redemption Profile (Bmk)





UniCredit - Mortgage (OBG2)

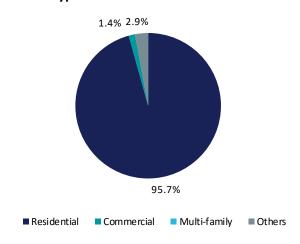
Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Italy •

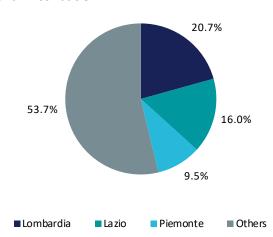
Cover Pool Data

Cover pool volume (EURm)	28,812	Rating (Moody's)	Aa3
Amount outstanding (EURm)	17,200	Rating (S&P)	-
-thereof ≥ EUR 500m	29.1%	Rating (Fitch)	-
Current OC (nominal)	67.5%	Rating (DBRS)	-
Committed OC	9.2%	TPI	Probable
Cover type	Mortgage	TPI leeway	1
Main country	100% Italy	Collateral score	6.3%
Main region	21% Lombardia	RRL	-
Number of loans	357,261	JRL	-
Number of borrowers	345,159	Unused notches	-
Avg. exposure to borrowers (EUR)	81,038	AAA credit risk (%)	-
WAL (cover pool)	8.9y	PCU	-
WAL (covered bonds)	7.0y	Recovery uplift	-
Fixed interest (cover pool)	52.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	34.9%	LCR eligible	Yes
LTV (indexed)	53.4%	LCR level (Bmk)	1
LTV (unindexed)	47.9%	Risk weight	10%
Loans in arrears	0.3%	Maturity structure (Bmk)	SB

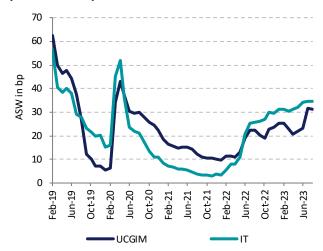
Borrower Types



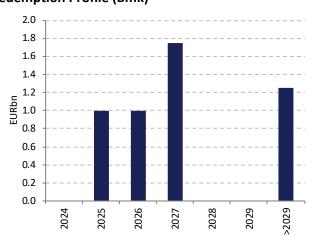
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Volksbank Südtirol

Italy |



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banca Popolare dell'Alto Adige SpA

	Rating	Outlook
Fitch	BB+	Stable
Moody's	-	-
S&P	BB+	Positive

Homepage

www.volksbank.it

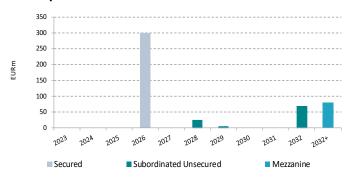
Volksbank Südtirol (VS; Italian name: Banca Popolare dell'Alto Adige S.p.A.) is a small Italian bank. Headquartered in Bolzano, the bank operates in the Trentino-South Tyrol region. In addition to its domestic market, the province of Bolzano (FY 2022: 52 branches), VS is also active in the northern Italian provinces of Trento (17), Vicenza (31), Padua (5), Treviso (18), Venice (15), Pordenone (2) and Belluno (20). After several mergers and acquisitions, VS has been operating as a Societa per azioni (public limited company) since 2016. In total, the bank employs more than 1,400 employees, who serve around 278,000 customers (of which 244,000 are retail customers; data as at FY 2022). In strategic terms, VS focuses on the retail banking and SME customer groups, which are offered services in the areas of loans, credit cards, leasing, factoring and wealth management. In addition, VS boasts a market share of 13% in each case for loans and deposits in the Province of Bolzano. VS reports in three operating segments: Private (FY 2022: 35% of pre-tax profit), Enterprises (27%) and Financial/ALM (60%) as well as the non-operating segment Reconciliation. Funding was primarily composed of customer deposits (70% as at FY 2022), in addition to deposits from governments and central banks (22%). In geographical terms, performing loans can be mainly attributed to the provinces of Bolzano (48%; FY 2022), Vicenza (15%), Treviso (11%) and Trento (9%). As part of the bank's sustainability strategy entitled "Sustainable 2023", VS grants green mortgages and loans, with corresponding bond issuances also in the pipeline.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	9,697	10,361	10,382
Total Securities	647	730	785
Total Deposits	8,057	9,033	8 <i>,</i> 759
Tier 1 Common Capital	771	816	806
Total Assets	11,626	13,283	12,956
Total Risk-weighted Assets	5,303	5,199	5,411

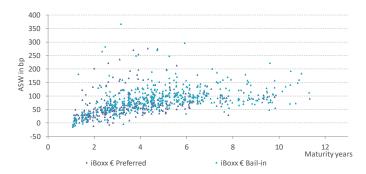
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	173	177	210
Net Fee & Commission Inc.	84	94	101
Net Trading Income	6	45	5
Operating Expense	190	202	201
Credit Commit. Impairment	64	55	24
Pre-tax Profit	21	78	114

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.63	1.47	1.66	Liquidity Coverage Ratio	228.51	235.45	229.51
ROAE	2.12	8.78	8.92	IFRS Tier 1 Leverage Ratio	6.64	6.15	6.23
Cost-to-Income	67.13	59.65	59.31	NPL/Loans at Amortised Cost	5.34	4.53	3.77
Core Tier 1 Ratio	14.54	15.69	14.89	Reserves/Loans at Amort. Cost	3.50	3.14	2.83

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Deposit basis
- Market position in Trentino-South Tyrol
- Credit quality in a peer comparison

- Diversification of income sources
- Capitalisation
- Profitability



Banca Popolare dell'Alto Adige – Mortgage

Italy

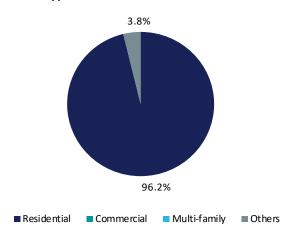


Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

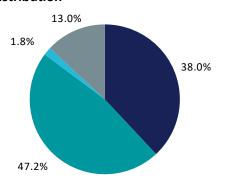
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Cover pool volume (EURm)	438	Rating (Moody's)	-
Amount outstanding (EURm)	300	Rating (S&P)	-
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	AA
Current OC (nominal)	46.1%	Rating (DBRS)	-
Committed OC	26.6%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Italy	Collateral score	-
Main region	38% Trentino Alto Adige	RRL	-
Number of loans	5,099	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	7.4y	PCU	6
WAL (covered bonds)	3.8y	Recovery uplift	2
Fixed interest (cover pool)	38.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	37.4%	LCR level (SBmk)	2A
LTV (unindexed)	37.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types

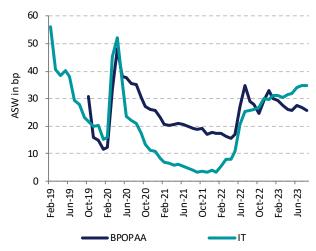


Regional Distribution

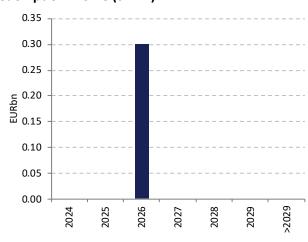


■ Trentino Alto Adige ■ Veneto ■ Friuli Venezia Giulia ■ Others

Spread Development



Redemption Profile (SBmk)





Market Overview Covered Bonds

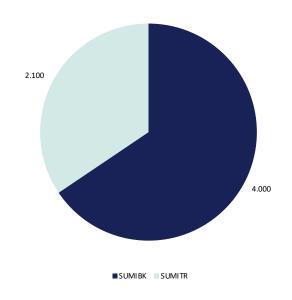
Japan



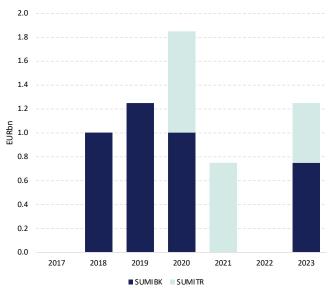
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 11.21bn	Outstanding volume (Bmk)	EUR 6.10bn
Amount outstanding	EUR 6.74bn	Number of benchmarks	8
Number of issuer	2	Outstanding ESG volume (Bmk)	-
No of cover pools	2	Number of ESG benchmarks	-
there of M / PS / others	2/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Not eligible	Maturity types	SB

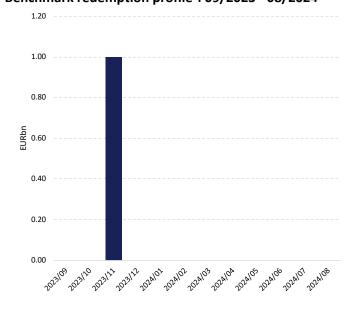
Outstanding benchmark volume¹ (EURbn)



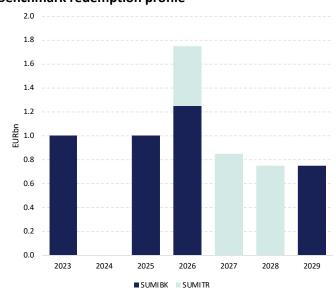
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Sumitomo Mitsui Financial Group

Japan



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sumitomo Mitsui Financial Group Inc

	Rating	Outlool
Fitch	A-	Stable
Moody's	A1	Stable
S&P	A-	Stable

Homepage

www.smbc.co.jp

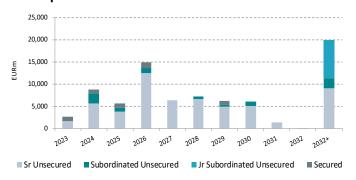
Sumitomo Mitsui Banking Corporation (SMBC) is a commercial bank headquartered in Tokyo. SMBC, including its subsidiaries, is itself a wholly owned subsidiary of the holding company Sumitomo Mitsui Financial Group Inc. (SMFG), which is one of Japan's largest financial groups. SMFG is one of the 30 global systemically important banks (G-SIBs; additional capital buffer 1.0%). In Japan, the bank has 455 branches and serves around 28 million retail customers (FY 2023). Customers are offered both financial products and services, as well as services in the segments of leasing, securities, credit cards and consumer finance. SMFG boasts market shares of 15% in each case for deposits and loans (FY 2022), and reports across the operating segments of Retail, Wholesale, Global and Global Markets. In geographical terms, 65% of the loan portfolio is attributable to the group's domestic market (FY 2023). The domestic portfolio is primarily comprised of loans to medium-sized businesses and SMEs (34%), large corporates (34%) and private individuals (19%). The foreign loan portfolio can be broken down into the regions EMEA (27%), North and South America (40%) and Asia (33%). As part of its Green Finance Framework, SMBC has been issuing green bonds since 2015 to support its sustainability strategy. As at the end of the first quarter of 2023, the total volume of outstanding green bonds came to the equivalent of EUR 2.3bn. The proceeds serve, among other aspects, to finance projects in the areas of wind and solar energy. The financial year ends on 31 March.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Y
Net Loans to Customers	650,744	667,298	676,129
Total Securities	477,665	482,889	448,722
Total Deposits	1,190,937	1,198,363	1,189,469
Tier 1 Common Capital	81,370	77,529	75,046
Total Assets	1,868,750	1,910,385	1,872,376
Total Risk-weighted Assets	508,493	536,337	535,101

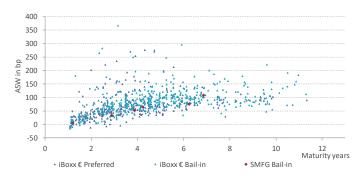
Income Statement

(EURm)	2021Y	2022Y	2023Y
Net Interest Income	10,803	11,708	12,200
Net Fee & Commission Inc.	8,891	9,237	8,705
Net Trading Income	1,615	775	857
Operating Expense	14,135	13,954	13,843
Credit Commit. Impairment	2,917	2,102	1,493
Pre-tax Profit	5,439	7,123	7,801

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Y		2021Y	2022Y	2023Y
Net Interest Margin	0.93	0.98	1.00	Liquidity Coverage Ratio	140.14	141.77	130.50
ROAE	4.57	5.87	6.51	IFRS Tier 1 Leverage Ratio	4.43	4.12	4.09
Cost-to-Income	61.98	58.07	58.71	NPL/Loans at Amortised Cost	1.14	1.29	0.95
Core Tier 1 Ratio	16.00	14.46	14.02	Reserves/Loans at Amort. Cost	0.77	0.90	0.76

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 31.07.2023$

Strengths / Opportunities

- Capitalisation
- Market position in Japan
- Probability of state support

- Wholesale funding in foreign currency
- Competition in the domestic market
- Profitability

NORD/LB

SMBC - Mortgage

Japan



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

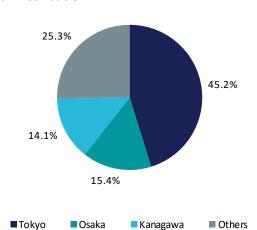
Cover Pool Data

Cover pool volume (EURm)	8,480	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,676	Rating (S&P)	-
-thereof ≥ EUR 500m	64.2%	Rating (Fitch)	-
Current OC (nominal)	81.4%	Rating (DBRS)	-
Committed OC	25.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Japan	Collateral score	0.0%
Main region	45% Tokyo	RRL	-
Number of loans	61,830	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	29.6y	PCU	-
WAL (covered bonds)	2.5y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	No
LTV (indexed)	75.3%	LCR level (Bmk)	Not eligible
LTV (unindexed)	85.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

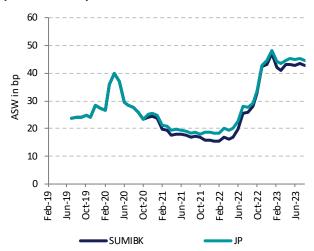
Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family ■ Others

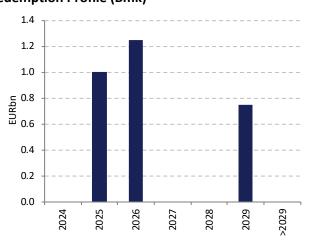
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Sumitomo Mitsui Trust Holding

Japan



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sumitomo Mitsui Trust **Bank Ltd**

	Rating	Outlool
Fitch	A-	Stable
Moody's*	A1	Stable
S&P	Α	Stable

Homepage

www.smth.jp

*Senior Unsecured/LT Bank Deposits

Sumitomo Mitsui Trust Bank (SMTB), headquartered in Tokyo, is the largest trust bank in Japan as measured by assets. It is a wholly owned subsidiary of Sumitomo Mitsui Trust Holdings, Inc. (SMTH) and main operating entity of the group. The trust and banking business represent core activities at SMTB. The group is active in the areas of private banking, asset management and real estate, among others. The Financial Services Agency in Japan categorises SMTH as a domestic systemically important bank (D-SIB). As measured by assets, it is the seventh-largest banking group in Japan. In the lending business, its national market share stands at around 5%. The group reports across the following business segments: Retail Business (FY 2023: 13% of pre-tax profit and before valuation), Corporate Business (43%), Investor Services Business (18%), Real Estate Business (13%), Global Markets Business (17%) and Asset Management Business (7%), in addition to Others (-10%). SMTB accounted for 76% of the net operating result, with the remainder attributable to other group companies. Broken down by sector, the portfolio consisted of private mortgage loans (FY 2023: 33%), followed by real estate (11%) and manufacturing industries (9%). The Japanese domestic market accounted for approximately 84% of the loan portfolio at group level. Around 65% of the funding mix consisted of customer deposits (FY 2023). The bank has been issuing green bonds since 2018 under its Green Bond Framework. As a member of the Net-Zero Banking Alliance, SMTH has committed to achieving carbon neutrality by 2050 at the latest. The financial year ended on 31 March 2023 (FY 2023).

Balance Sheet (EURm) 2021Y 2022Y 2023Y 227,679 219,350 Net Loans to Customers 234,015 **Total Securities** 80,446 83,127 74,035 312,980 295,175 296,670 **Total Deposits** 18,913 18,386 17,377 Tier 1 Common Capital 479,131 477,895 Total Assets 488,160 Total Risk-weighted Assets 161,025

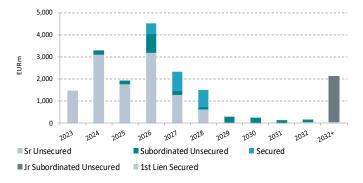
155,945

149,265

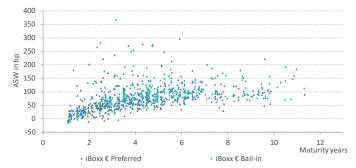
Income Statement

(EURm)	2021Y	2022Y	2023Y
Net Interest Income	1,831	2,052	773
Net Fee & Commission Inc.	3,040	3,234	3,034
Net Trading Income	-269	103	74
Operating Expense	3,394	3,335	3,239
Credit Commit. Impairment	63	319	74
Pre-tax Profit	1,618	1,747	1,927

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Y		2021Y	2022Y	2023Y
Net Interest Margin	0.41	0.46	0.18	Liquidity Coverage Ratio	153.70	160.90	138.36
ROAE	5.49	6.17	6.95	IFRS Tier 1 Leverage Ratio	3.93	3.90	3.72
Cost-to-Income	68.72	61.60	60.62	NPL/Loans at Amortised Cost	0.46	0.72	0.48
Core Tier 1 Ratio	12.13	12.32	10.79	Reserves/Loans at Amort. Cost	0.42	0.53	0.41

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position within the trust business
- Liquidity
- Asset quality

- **Profitability**
- Capitalisation
- FX funding profile



SMTB – Mortgage

Japan



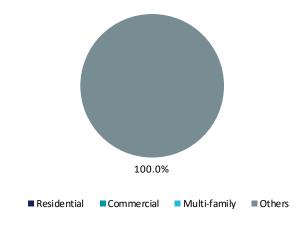
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

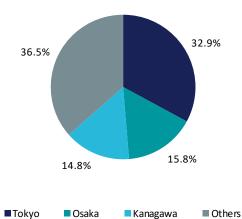
Cover Pool Data

Amount outstanding (EURm)2,063Rating (S&P)thereof ≥ EUR 500m100.0%Rating (Fitch)-Current OC (nominal)32.3%Rating (DBRS)-Committed OC25.0%TPIProbableCover typeMortgageTPI leeway2Main country100% JapanCollateral score0.0%Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%Loans in arrears0.0%Maturity structure (Bmk)SB	Cover pool volume (EURm)	2,729	Rating (Moody's)	Aaa
Current OC (nominal)32.3%Rating (DBRS)-Committed OC25.0%TPIProbableCover typeMortgageTPI leeway2Main country100% JapanCollateral score0.0%Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Amount outstanding (EURm)	2,063	Rating (S&P)	-
Committed OC25.0%TPIProbableCover typeMortgageTPI leeway2Main country100% JapanCollateral score0.0%Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Cover typeMortgage Main countryTPI leeway2Main country100% JapanCollateral score0.0%Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Current OC (nominal)	32.3%	Rating (DBRS)	-
Main country100% JapanCollateral score0.0%Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Committed OC	25.0%	TPI	Probable
Main region33% TokyoRRL-Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Cover type	Mortgage	TPI leeway	2
Number of loans15,737JRL-Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Main country	100% Japan	Collateral score	0.0%
Number of borrowersn/aUnused notches-Avg. exposure to borrowers (EUR)n/aAAA credit risk (%)-WAL (cover pool)28.9yPCU-WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Main region	33% Tokyo	RRL	-
Avg. exposure to borrowers (EUR) N/a N/a AAA credit risk (%) PCU WAL (covered bonds) 4.7y Recovery uplift Fixed interest (cover pool) 0.0% Outstanding ESG BMKs No Fixed interest (covered bonds) LCR eligible No LTV (indexed) 88.2% LCR level (Bmk) Not eligible LTV (unindexed) Risk weight 20%	Number of loans	15,737	JRL	-
WAL (cover pool) 28.9y PCU - WAL (covered bonds) 4.7y Recovery uplift - Fixed interest (cover pool) 0.0% Outstanding ESG BMKs No Fixed interest (covered bonds) 100.0% LCR eligible No LTV (indexed) 88.2% LCR level (Bmk) Not eligible LTV (unindexed) 79.4% Risk weight 20%	Number of borrowers	n/a	Unused notches	-
WAL (covered bonds)4.7yRecovery uplift-Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
Fixed interest (cover pool)0.0%Outstanding ESG BMKsNoFixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	WAL (cover pool)	28.9y	PCU	-
Fixed interest (covered bonds)100.0%LCR eligibleNoLTV (indexed)88.2%LCR level (Bmk)Not eligibleLTV (unindexed)79.4%Risk weight20%	WAL (covered bonds)	4.7y	Recovery uplift	-
LTV (indexed) 88.2% LCR level (Bmk) Not eligible LTV (unindexed) 79.4% Risk weight 20%	Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	No
LTV (unindexed) 79.4% Risk weight 20%	Fixed interest (covered bonds)	100.0%	LCR eligible	No
(1 1 1 1)	LTV (indexed)	88.2%	LCR level (Bmk)	Not eligible
Loans in arrears 0.0% Maturity structure (Bmk) SB	LTV (unindexed)	79.4%	Risk weight	20%
• • • • • • • • • • • • • • • • • • • •	Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

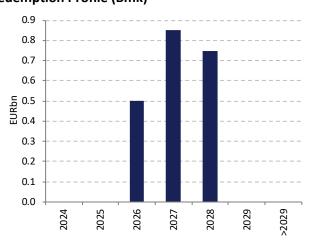




Spread Development

Asw in bp Oct-19 Lun-19 Oct-19 Lun-20 Feb-19 Oct-20 Feb-21 Jun-22 Oct-22 Geb-23 Jun-23 Jun-23

Redemption Profile (Bmk)





Market Overview Covered Bonds

Luxembourg



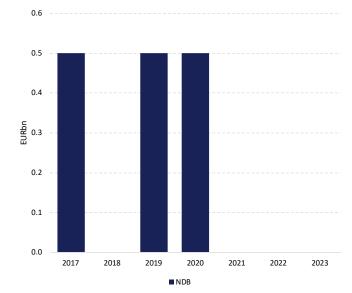
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 3.63bn	Outstanding volume (Bmk)	EUR 1.00bn
Amount outstanding	EUR 2.91bn	Number of benchmarks	2
Number of issuer	1	Outstanding ESG volume (Bmk)	-
No of cover pools	2	Number of ESG benchmarks	-
there of M / PS / others	0/1/1	Outstanding volume (SBmk)	EUR 0.30bn
Ratings (low / high)	AA / AA	Number of subbenchmarks	1
Best possible LCR level	Level 1	Maturity types	НВ

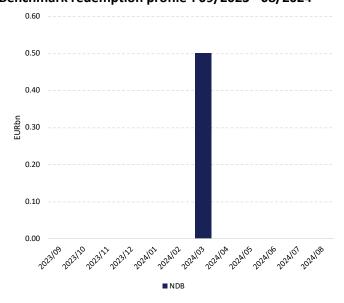
Outstanding benchmark volume¹ (EURbn)

1.000 ■ NDB

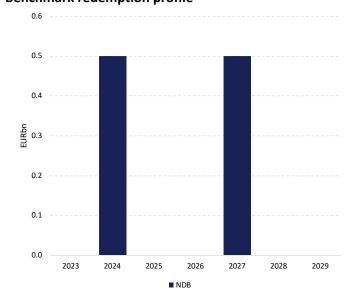
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





NORD/LB Luxembourg SA. Covered Bond Bank Luxembourg



7

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

NORD/LB Luxembourg SA Covered Bond Bank

	Rating	Outlool
Fitch	-	-
Moody's*	A3	Positive
S&P	-	-

Homepage

www.nordlb.lu

*LT Bank Deposits

NORD/LB Luxembourg S.A. Covered Bond Bank (NORD/LB CBB) is a covered bond bank that operates in accordance with Luxembourg law. The institute is a wholly owned subsidiary of Norddeutsche Landesbank Girozentrale (NORD/LB), which has issued a letter of comfort to NORD/LB CBB. The main shareholder of NORD/LB is the Bundesland of Lower Saxony (57.50%), followed by the trustee companies of the German Savings Banks Association (DSGV; FIDES Gamma and FIDES Delta) with 12.06% each. As under public law NORD/LB is part of the Savings Bank Finance Group (Sparkassen-Finanzgruppe). In 2022, NORD/LB CBB employed around 130 staff. Until 01 January 2022, the primary mission of NORD/LB CBB was focused on refinancing the core business of the NORD/LB Group through the issuance of covered bonds (Lettres de Gage). As part of the Group-wide transformation programme "NORD/LB 2024", the Pfandbrief business, which was actively operated by NORD/LB CBB, was discontinued from 2022 onwards. This applies to both new issuances of Lettre de Gage products as well as the transfer of new lending business from the parent company to NORD/LB CBB. Only the segments focused on factoring and Fixed Income Relationship Management & Sales Europe will remain in operation until 2024. The future focus of NORD/LB CBB will be on the administration of existing portfolios, cover pools and ensuring operational stability. NORD/LB CBB is also set to remain an integral part of the NORD/LB Group after the transformation. The institute reports in the segments Financial Markets, Loans and Group Services/B2B.

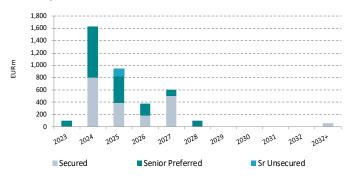
Balance Sheet				Income Statemen
(EURm)	2021Y	2021Y	2022Y	(EURm)
Net Loans to Customers	7,033	7,033	5,944	Net Interest Income
Total Securities	3,178	3,178	2,561	Net Fee & Commission
Total Deposits	2,822	2,822	2,371	Net Trading Income
Tier 1 Common Capital	630	630	584	Operating Expense
Total Assets	10,580	10,580	9,155	Credit Commit. Impa
Total Risk-weighted Assets	2,122	2,122	1,848	Pre-tax Profit

nt 2021Y 2021Y 2022Y 98 98 75 -50 -50 -39 ion Inc. -16 -16 6 31 31 31 -6 -6 1 airment

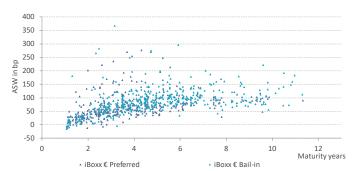
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-4

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2021Y	2022Y		2021Y	2021Y	2022Y
Net Interest Margin	0.85	0.85	0.77	Liquidity Coverage Ratio	-	-	-
ROAE	-0.61	-0.61	2.13	IFRS Tier 1 Leverage Ratio	6.26	6.26	6.69
Cost-to-Income	202.12	202.12	80.51	NPL/Loans at Amortised Cost	0.66	0.66	0.77
Core Tier 1 Ratio	29.69	29.69	31.60	Reserves/Loans at Amort. Cost	0.04	0.04	0.06

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Information: A SWOT analysis cannot be offered due to the obvious conflict of interest here.



NORD/LB Luxembourg CBB – Public Sector

Luxembourg

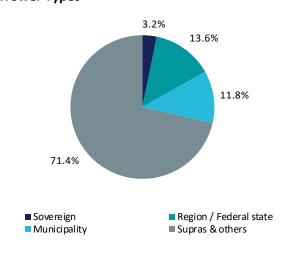


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

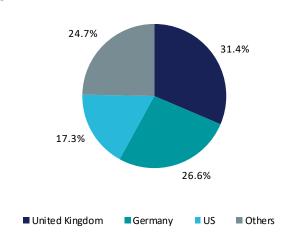
Cover Pool Data

Cover pool volume (EURm)	3,300	Rating (Moody's)	Aa2
Amount outstanding (EURm)	2,605	Rating (S&P)	-
-thereof ≥ EUR 500m	19.2%	Rating (Fitch)	-
Current OC (nominal)	26.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable
Cover type	Public Sector	TPI leeway	3
Main country	31% United Kingdom	Collateral score	17.2%
Main region	n/a	RRL	-
Number of loans	282	JRL	-
Number of borrowers	158	Unused notches	-
Avg. exposure to borrowers (EUR)	20,010,073	AAA credit risk (%)	-
WAL (cover pool)	7.0y	PCU	-
WAL (covered bonds)	6.6y	Recovery uplift	-
Fixed interest (cover pool)	49.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	95.7%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

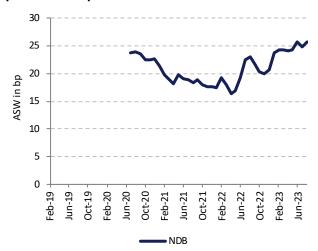
Borrower Types



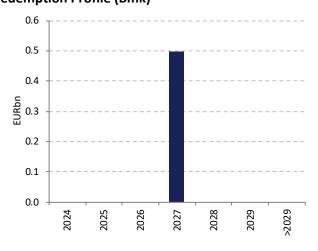
Regional Distribution



Spread Development



Redemption Profile (Bmk)





NORD/LB Luxembourg CBB – Renewable

Luxembourg

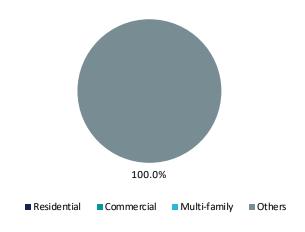


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

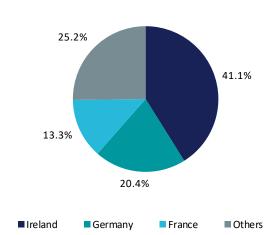
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LUI	/ei	ruu	ט וו	ala

Cover pool volume (EURm)	332	Rating (Moody's)	Aa2
Amount outstanding (EURm)	300	Rating (S&P)	-
-thereof ≥ EUR 250m	100.0%	Rating (Fitch)	-
Current OC (nominal)	10.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Improbable
Cover type	Renewable Energy	TPI leeway	1
Main country	41% Ireland	Collateral score	27.9%
Main region	n/a	RRL	-
Number of loans	30	JRL	-
Number of borrowers	27	Unused notches	-
Avg. exposure to borrowers (EUR)	12,300,000	AAA credit risk (%)	-
WAL (cover pool)	5.0y	PCU	-
WAL (covered bonds)	1.6y	Recovery uplift	-
Fixed interest (cover pool)	18.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	-	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (SBmk)	НВ

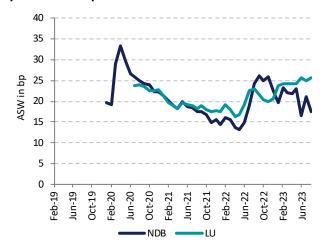
Borrower Types



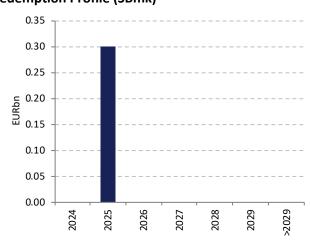
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Market Overview Covered Bonds

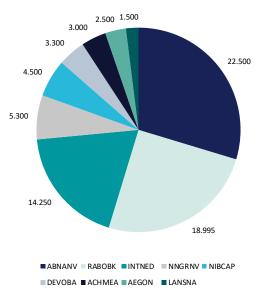
Netherlands =



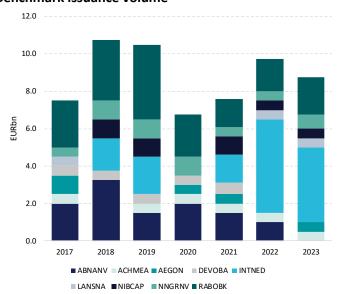
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 113.37bn	Outstanding volume (Bmk)	EUR 75.85bn
Amount outstanding	EUR 89.79bn	Number of benchmarks	76
Number of issuer	9	Outstanding ESG volume (Bmk)	EUR 1.25bn
No of cover pools	12	Number of ESG benchmarks	2
there of M / PS / others	12/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	SB, CPT

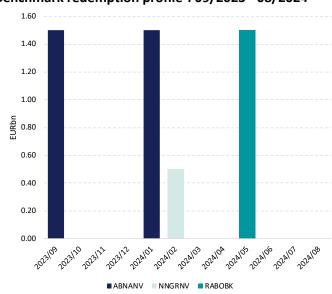
Outstanding benchmark volume¹ (EURbn)



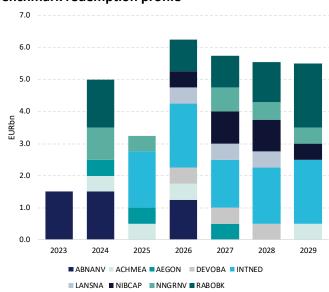
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile¹²



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



ABN AMRO

Netherlands =



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ABN AMRO Bank NV

	Rating	Outlook
Fitch	Α	Stable
Moody's	A1	Stable
S&P	Α	Stable

Homepage

www.abnamro.com

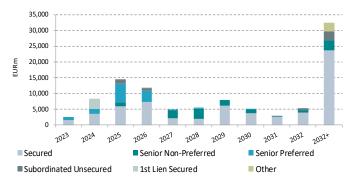
ABN AMRO Bank N.V. is a universal bank that serves retail, business and corporate customers. The ABN AMRO Group, which is a domestic systemically important bank (D-SIB), has a geographical focus on the Netherlands and north-west Europe. Outside of the Netherlands, the bank is active in 12 other countries, where it has established subsidiaries. According to its own information, ABN AMRO is one of the market leaders in the Netherlands in the Retail Banking segment (mortgages and SMEs; market shares of 17% and 16% respectively as at FY 2022). The Dutch state currently holds a stake of around 49.9% in ABN AMRO via the NL financial investments, NLFI. At the start of 2022, the business structure was streamlined and simplified, with the result that ABN AMRO now reports in four segments. In FY 2022, 25% of the pre-tax profit was attributable to the Personal & Business Banking segment, with Corporate Banking and Wealth Management accounting for shares of 66% and 19% respectively. The bank also operates the supporting segment Group Functions (10% loss). The majority of the loan portfolio consists of mortgage and corporate loans (FY 2022: 63% and 33% respectively). The lion's share of the funding mix comprises deposits (FY 2022: around 67%) and is supplemented by capital market instruments such as green bonds, among others (outstanding volume FY 2022: EUR 5.6bn). In 2022, ABN published a climate strategy in an attempt to achieve climate neutrality within the loan portfolio and business activities by 2050. On 15 July 2022, the joint venture ABN AMRO Verzekeringen (49% share) concluded the sale of its subsidiary Levensverzekering N.V. to the NN Group. In addition, ABN AMRO Pensioeninstelling N.V. (EUR 3.5bn in AuM) was sold to Achmea on 2 September 2022.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	258,253	243,928	249,434
Total Securities	64,241	65,184	77,233
Total Deposits	251,218	255,015	261,944
Tier 1 Common Capital	19,206	19,507	19,727
Total Assets	399,113	379,581	403,764
Total Risk-weighted Assets	117,693	128,593	131,748

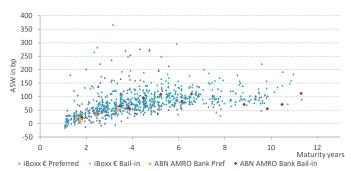
Income Statement

moonic otatoment			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	5,210	5,422	1,620
Net Fee & Commission Inc.	1,664	1,778	444
Net Trading Income	37	283	51
Operating Expense	5,327	5,428	1,406
Credit Commit. Impairment	-46	39	14
Pre-tax Profit	1.838	2.376	722

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.31	1.34	1.69	Liquidity Coverage Ratio	167.44	144.34	142.79
ROAE	5.73	8.30	9.19	IFRS Tier 1 Leverage Ratio	4.87	5.20	-
Cost-to-Income	72.00	67.98	65.64	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	16.32	15.17	14.97	Reserves/Loans at Amort. Cost	0.93	0.82	0.73

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Domestic market position
- Capitalisation
- Risk profile (focus on retail banking)

- Profitability
- Competitive market environment in NL
- Inflation risks (higher costs)



ABN AMRO Bank - Mortgage

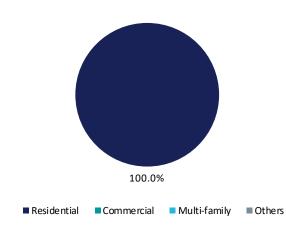
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Netherlands =

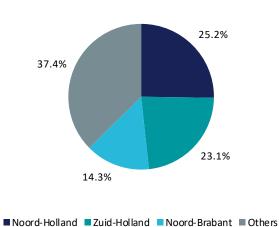
Cover Pool Data

Cover pool volume (EURm)	37,948	Rating (Moody's)	Aaa
Amount outstanding (EURm)	28,567	Rating (S&P)	-
-thereof ≥ EUR 500m	73.5%	Rating (Fitch)	AAA
Current OC (nominal)	32.8%	Rating (DBRS)	-
Committed OC	13.6%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Netherlands	Collateral score	5.0%
Main region	25% Noord-Holland	RRL	-
Number of loans	158,087	JRL	-
Number of borrowers	157,006	Unused notches	-
Avg. exposure to borrowers (EUR)	241,696	AAA credit risk (%)	-
WAL (cover pool)	16.5y	PCU	6
WAL (covered bonds)	9.6y	Recovery uplift	2
Fixed interest (cover pool)	98.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	99.7%	LCR eligible	Yes
LTV (indexed)	59.4%	LCR level (Bmk)	1
LTV (unindexed)	68.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



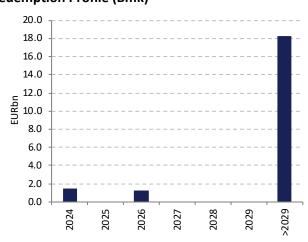
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Achmea Bank

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Achmea Bank NV

	Rating	Outlook
Fitch	Α	Stable
Moody's	-	-
S&P	A-	Stable

Homepage

www.achmeabank.com

Achmea Bank NV (AB) is a wholly owned subsidiary of Achmea BV, which in turn is the parent company of the Achmea Group (the largest insurance group in the Netherlands according to its own information). Achmea Society owns roughly 67% of Achmea BV, with Rabobank holding a stake of 31%. Achmea Bank is of strategic significance within the Group structure and is the competence and service centre for mortgage loans and savings products. These are offered via the brands "Woonfonds" and "Central Beheer", which serve approximately 70,000 customers in the mortgage business and 400,000 customers in the area of deposits. Furthermore, the bank manages the former loan portfolio of Staalbankiers, better known as "Acier Financieringen". AB, which is headquartered in Tilburg, has around 200 employees. In 2022, three mortgage portfolios (with a total value of EUR 0.9bn) were acquired from the Dutch insurance group a.s.r., which will remain responsible for administering the portfolios. Both parties also announced that further transactions are planned as part of the strategic partnership over the next three years. Customer deposits and wholesale funding account for the bulk of the funding mix, at 61% and 30% respectively (FY 2022). In January 2023, AB published a "Climate Transition Plan", which has been anchored in the climate targets of the parent company. AB intends to achieve carbon neutrality for its own activities by 2030, for all investments by 2040 and for its insurance and real estate portfolio by 2050. Among other aspects, the average energy label of the mortgage portfolio should be "A" by 2030.

Balance Sheet		
(EURm)	2020Y	2021Y
Net Loans to Customers	12,093	11,364
Total Securities	82	62

(LOMII)	20201	20211	20221
Net Loans to Customers	12,093	11,364	11,871
Total Securities	82	62	538
Total Deposits	7,447	7,515	8,086
Tier 1 Common Capital	807	779	776
Total Assets	13,834	12,848	13,933
Total Risk-weighted Assets	3.954	3.726	4.264

Income Statement

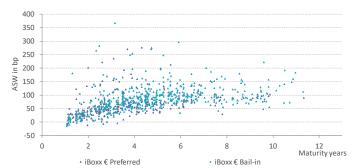
2022V

moonic otatement			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	141	138	118
Net Fee & Commission Inc.	9	1	1
Net Trading Income	-5	5	7
Operating Expense	105	101	105
Credit Commit. Impairment	3	-9	4
Pre-tax Profit	37	52	18

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.03	1.03	0.88	Liquidity Coverage Ratio	332.30	296.83	210.65
ROAE	3.35	4.75	1.67	IFRS Tier 1 Leverage Ratio	6.03	6.23	5.74
Cost-to-Income	71.64	70.24	82.66	NPL/Loans at Amortised Cost	0.91	-	-
Core Tier 1 Ratio	20.42	20.90	18.20	Reserves/Loans at Amort. Cost	0.23	0.12	0.18

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Strategic unit of the Achmea Group
- Operational interdependencies with the Achmea Group

- Credit concentration risks (Netherlands)
- **Profitability**
- Economies of scale (as a small bank)



Achmea Bank - Mortgage (SB)

Netherlands =

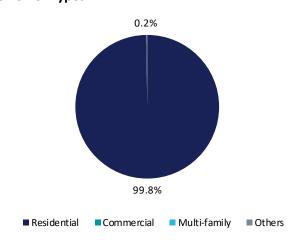


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

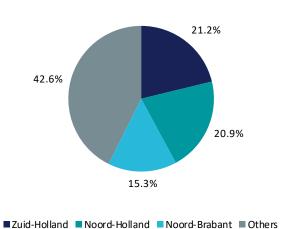
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LUI	/ei	ruu	ט וו	ala

Cover pool volume (EURm)	4,826	Rating (Moody's)	-
Amount outstanding (EURm)	3,000	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	60.9%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	21% Zuid-Holland	RRL	a+
Number of loans	50,006	JRL	aa+
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	8.0%
WAL (cover pool)	16.6y	PCU	-
WAL (covered bonds)	5.3y	Recovery uplift	-
Fixed interest (cover pool)	97.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	65.7%	LCR level (Bmk)	1
LTV (unindexed)	71.6%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

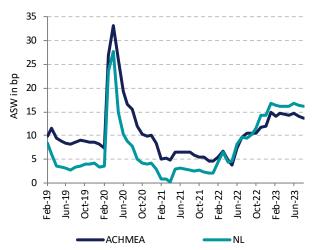
Borrower Types



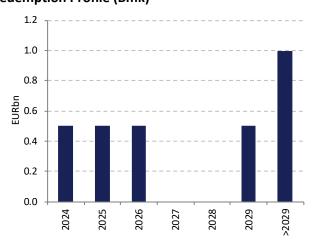
Regional Distribution



Spread Development



Redemption Profile (Bmk)





AEGON Bank

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Aegon Bank NV

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	A-	Stable

Homepage

www.aegon.com

Die AEGON Bank N.V. (AEB) is part of the Dutch AEGON Group, which is listed on the Amsterdam and New York stock exchanges. The geographical focus of the Group is on the USA, where it operates under the name Transamerica, the Netherlands and the UK. AEB has more than 19,000 employees, who serve approximately 29.5 million customers in the following segments: insurance, pension products, banking and services products, as well as asset management. As a wholly owned subsidiary of AEGON Nederland N.V, AEB is integrated within the Group's holding company AEGON N.V. Since the merger of AEB and Knab (purely online bank) in 2019, AEB has primarily been operating under the Knab brand. Knab serves around 108,000 retail and 238,000 corporate customers (FY 2022), while AEB continues to serve more than 104,000 customers. In 2023, the last customers who still have active products with AEGON Bank will be moved over to the Knab brand. Knab is aiming to become the leading bank for self-employed people and entrepreneurs. In the future, Knab also has plans to grant mortgages to entrepreneurs. Deposits account for the majority of the refinancing activities, with a share of around 75% (FY 2022). On 27 October 2022, the AEGON Group announced that it had agreed terms on a merger with a.s.r. to combine their Dutch pension, life and non-life insurance, banking and mortgage activities (including Knab). Through this transaction, a leading Dutch insurance group will be formed. Moreover, as per the terms of the agreement, the AEGON Group would have a stake of 29.99% in this new insurance group, in addition to receiving a payment of EUR 2.5bn.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	13,726	13,042	11,977
Total Securities	1,645	1,984	2,705
Total Deposits	12,540	11,586	12,009
Tier 1 Common Capital	696	724	695
Total Assets	17,137	16,150	17,567

3,331

3,496

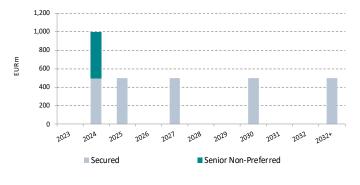
3,159

Income Statement

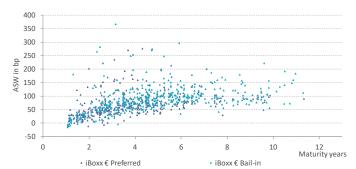
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	232	218	217
Net Fee & Commission Inc.	21	24	31
Net Trading Income	40	18	-42
Operating Expense	236	172	165
Credit Commit. Impairment	93	-26	-4
Pre-tay Profit	-36	112	43

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.41	1.32	1.30	Liquidity Coverage Ratio	163.75	186.75	223.00
ROAE	-4.35	11.30	4.45	IFRS Tier 1 Leverage Ratio	4.26	4.62	4.15
Cost-to-Income	80.53	66.38	80.51	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	20.89	20.71	22.01	Reserves/Loans at Amort. Cost	1.16	0.67	0.40

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Strategic unit within the AEGON Group
- Risk profile (mortgage portfolio)
- · Expanding franchise under Knab

- Size of the SME and consumer exposure (peer group)
- Economies of scale (as a small bank)
- Credit risk concentration (Netherlands)



AEGON Bank - Mortgage (CPT)

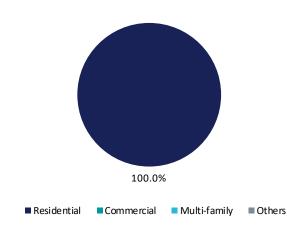
Netherlands =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

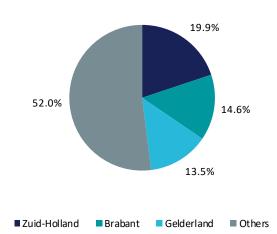
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	/Eı	T UU	I Data

1,812	Rating (Moody's)	-
1,500	Rating (S&P)	AAA
100.0%	Rating (Fitch)	-
20.8%	Rating (DBRS)	-
10.0%	TPI	-
Mortgage	TPI leeway	-
100% Netherlands	Collateral score	-
20% Zuid-Holland	RRL	a+
11,640	JRL	aa+
n/a	Unused notches	N/A
n/a	AAA credit risk (%)	2.5%
17.8y	PCU	-
2.5y	Recovery uplift	-
98.0%	Outstanding ESG BMKs	No
100.0%	LCR eligible	Yes
47.5%	LCR level (Bmk)	1
66.2%	Risk weight	10%
0.0%	Maturity structure (Bmk)	CPT
	1,500 100.0% 20.8% 10.0% Mortgage 100% Netherlands 20% Zuid-Holland 11,640 n/a n/a 17.8y 2.5y 98.0% 100.0% 47.5% 66.2%	1,500 Rating (S&P) 100.0% Rating (Fitch) 20.8% Rating (DBRS) 10.0% TPI Mortgage TPI leeway 100% Netherlands Collateral score 20% Zuid-Holland RRL 11,640 JRL n/a Unused notches n/a AAA credit risk (%) 17.8y PCU 2.5y Recovery uplift 98.0% Outstanding ESG BMKs 100.0% LCR eligible 47.5% LCR level (Bmk) 66.2% Risk weight

Borrower Types



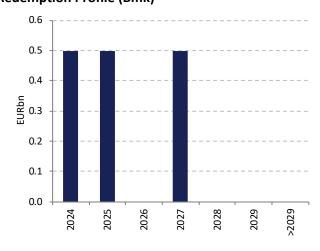
Regional Distribution



Spread Development



Redemption Profile (Bmk)





AEGON Bank - Mortgage (SB)

Netherlands =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

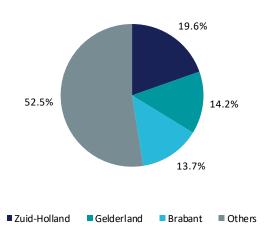
Cover Pool Data

Cover pool volume (EURm)	1,177	Rating (Moody's)	-
Amount outstanding (EURm)	1,000	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	17.7%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	20% Zuid-Holland	RRL	a+
Number of loans	7,520	JRL	aa+
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	2.5%
WAL (cover pool)	18.2y	PCU	-
WAL (covered bonds)	9.9y	Recovery uplift	-
Fixed interest (cover pool)	97.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	49.6%	LCR level (Bmk)	1
LTV (unindexed)	66.6%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family ■ Others

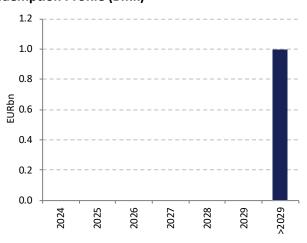
Regional Distribution



Spread Development



Redemption Profile (Bmk)





de Volksbank

Netherlands =



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

de Volksbank NV

	Rating	Outlook
Fitch	A-	Stable
Moody's	A2	Stable
S&P	Α	Stable

Homepage

www.devolksbank.nl

*Senior Unsecured/LT Bank Deposits Headquartered in Utrecht, de Volksbank N.V. is a wholly owned subsidiary of NL financial investments (NLFI) and is therefore 100% owned by the Dutch state. The bank was nationalised in 2013 following significant losses incurred by the former SNS Group (SNS REAAL) in the commercial mortgage segment. Although a re-privatisation is planned, NFLI reported in July 2022 that it is still too early for this to occur. With around 3.3 million customers and over 3,000 employees, de Volksbank is the fourth-largest retail bank in the Netherlands. De Volksbank is a domestic systemically important bank (D-SIB) in the Netherlands, offering its customers simple mortgage loans, savings and payment transaction products as well as insurance policies and capital investment products. Retail customers and SMEs are the bank's most important customer groups. The individual brands of the bank – ASN Bank, BLG Wonen, RegioBank and SNS – each have a particular focus on one of the business areas of the bank. As at FY 2022, the bank has a market share in the Netherlands of 5.9% for mortgage loans and around 10.4% for savings deposits. As at FY 2022, the funding mix mainly consists of deposits (87%). Covered bonds (54%) dominate wholesale funding (13% of total funding), followed by senior preferred bonds (23%) and senior non-preferred bonds (15%). Since 2019, a total volume of EUR 3.3bn has been issued in the form of green bonds. In this context, two further green bonds totalling EUR 800m overall were placed on the market in 2022. In addition, de Volksbank is planning to achieve a 75% climate-neutral balance sheet by 2025. According to information from the bank itself, its balance sheet is already 62% climate-neutral as at year-end 2022.

Balance Sheet 2020Y (EURm) 2021Y 2022Y Net Loans to Customers 50,542 50,570 48,966 8,893 **Total Securities** 5.977 6,229 57,150 **Total Deposits** 53,652 58,128 Tier 1 Common Capital 3,223 3,182 3,101

67,484

10,331

72,081

13,993

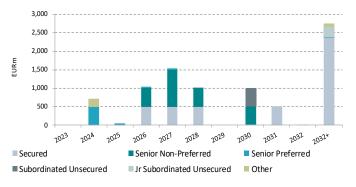
73,155 15,306

Income Statement			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	850	775	851
Net Fee & Commission Inc.	46	39	51
Net Trading Income	24	13	61
Operating Expense	617	692	677
Credit Commit. Impairment	38	-59	44
Pre-tax Profit	233	218	258

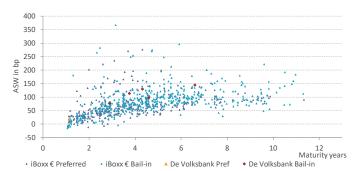
Redemption Profile

Total Risk-weighted Assets

Total Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.31	1.12	1.18	Liquidity Coverage Ratio	532.34	493.33	520.04
ROAE	5.05	4.67	5.31	IFRS Tier 1 Leverage Ratio	4.93	4.48	4.29
Cost-to-Income	66.85	83.68	70.16	NPL/Loans at Amortised Cost	1.34	1.20	1.12
Core Tier 1 Ratio	31.20	22.74	20.26	Reserves/Loans at Amort. Cost	0.33	0.21	0.31

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Liquidity profile
- Asset profile (focus on NL mortgages)
- Capitalisation

- Low diversification
- Competitive mortgage market in NL
- Profitability



de Volksbank – Mortgage

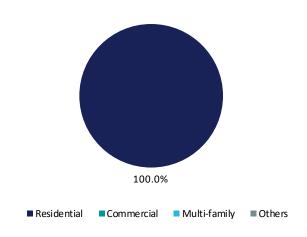
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Netherlands =

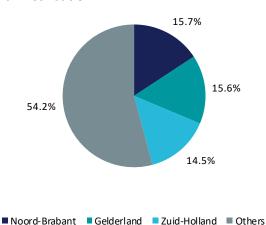
Cover Pool Data

Cover pool volume (EURm)	5,389	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,570	Rating (S&P)	-
-thereof ≥ EUR 500m	72.2%	Rating (Fitch)	AAA
Current OC (nominal)	17.9%	Rating (DBRS)	-
Committed OC	9.9%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Netherlands	Collateral score	5.0%
Main region	16% Noord-Brabant	RRL	-
Number of loans	29,153	JRL	-
Number of borrowers	29,156	Unused notches	-
Avg. exposure to borrowers (EUR)	184,824	AAA credit risk (%)	-
WAL (cover pool)	15.5y	PCU	6
WAL (covered bonds)	11.1y	Recovery uplift	2
Fixed interest (cover pool)	96.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	49.0%	LCR level (Bmk)	1
LTV (unindexed)	65.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

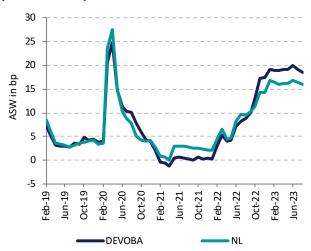
Borrower Types



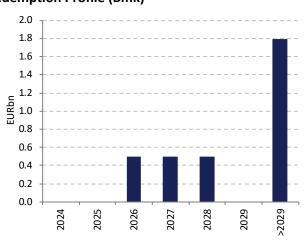
Regional Distribution



Spread Development



Redemption Profile (Bmk)





ING Groep

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ING Bank NV

	Rating	Outlook
Fitch	AA-	Stable
Moody's	A1	Stable
S&P	A+	Stable

Homepage

www.ing.com

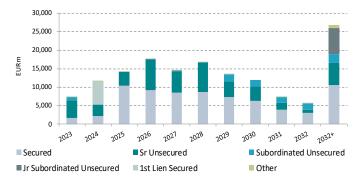
The ING Group N.V. (ING), which wholly owns ING Bank N.V., is the largest financial group in the Netherlands as measured by assets and is headquartered in Amsterdam. Its shares are listed on the stock exchanges in Amsterdam and Brussels, as well as in the form of ADRs in New York. The Financial Stability Board has classified ING as the only global systemically important bank (G-SIB; additional capitalisation requirement of 1.0%) in the Netherlands. Due to the extremely high relevance of the bank for the Group, we are mainly using financial data from the ING Group. More than 60,000 employees serve approximately 37 million retail and corporate customers across more than 40 countries. ING breaks down its markets into the following segments: Market Leaders (the Netherlands, Belgium, Luxembourg), Challengers (Germany, Spain, Italy and Australia) and Growth Markets (Poland, Romania, Turkey and Asia) in addition to Wholesale Banking. After the retail business in Austria and the Czech Republic was closed in fourth quarter of 2021, retail activities were discontinued in both France and the Philippines in 2022. Reporting is conducted across the segments Retail Netherlands (36.6% of the pre-tax profit), Retail Belgium (4.1%), Retail Germany (16.4%), Retail Other (15.4%) and Wholesale Banking (36.2%), in addition to Corporate Line (8.6%). With a share of 66%, the loan portfolio of ING as at FY 2022 was primarily retail based, while the focus of retail banking is directed towards residential mortgage loans (63%). In the long term, ING is pursuing the goal of climate neutrality for its loan portfolio by 2050. In this context, a new Green Bond Framework was published in 2022, which is intended to refinance the renewable energies and sustainable buildings segments.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	679,299	692,794	634,297
Total Securities	129,119	136,263	221,444
Total Deposits	660,322	691,026	-
Tier 1 Common Capital	49,760	47,961	48,588
Total Assets	951,290	967,817	1,022,188
Total Risk-weighted Assets	313,064	331,520	327,377

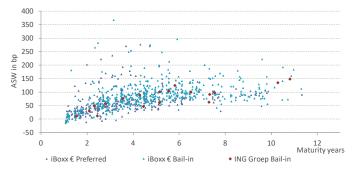
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	13,615	13,756	4,012
Net Fee & Commission Inc.	3,517	3,586	896
Net Trading Income	892	1,528	-
Operating Expense	10,549	10,794	3,067
Credit Commit. Impairment	516	1,861	152
Pre-tax Profit	6.782	5.502	2.344

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.42	1.38	1.64	Liquidity Coverage Ratio	138.92	134.22	133.95
ROAE	8.73	7.18	12.69	IFRS Tier 1 Leverage Ratio	5.35	5.14	-
Cost-to-Income	57.28	56.23	54.41	NPL/Loans at Amortised Cost	1.83	1.78	1.77
Core Tier 1 Ratio	15.89	14.47	14.84	Reserves/Loans at Amort. Cost	0.83	0.93	0.90

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Profitability
- Diversified loan portfolio
- Market position (retail) in Benelux countries

- Exposure in cyclical sectors (wholesale)
- Economic outlook
- Framework for non-financial risks



ING Bank – Mortgage (Hard and Soft Bullet)

Netherlands =

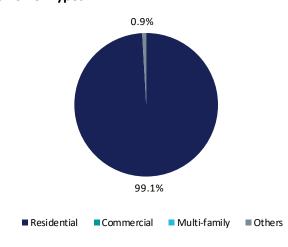


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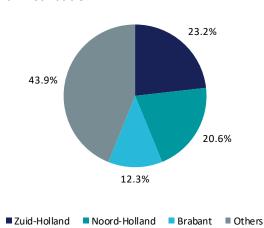
Cover Pool Data

Cover pool volume (EURm)	25,311	Rating (Moody's)	Aaa
Amount outstanding (EURm)	20,316	Rating (S&P)	AAA
-thereof ≥ EUR 500m	70.1%	Rating (Fitch)	AAA
Current OC (nominal)	24.6%	Rating (DBRS)	-
Committed OC	2.5%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Netherlands	Collateral score	5.0%
Main region	23% Zuid-Holland	RRL	aa
Number of loans	129,252	JRL	aaa
Number of borrowers	130,514	Unused notches	4
Avg. exposure to borrowers (EUR)	192,190	AAA credit risk (%)	2.5%
WAL (cover pool)	14.3y	PCU	6
WAL (covered bonds)	5.5y	Recovery uplift	2
Fixed interest (cover pool)	93.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	92.6%	LCR eligible	Yes
LTV (indexed)	50.9%	LCR level (Bmk)	1
LTV (unindexed)	50.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

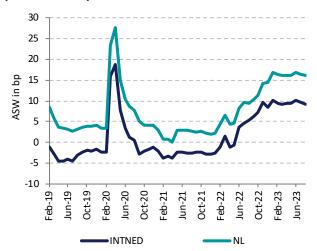
Borrower Types



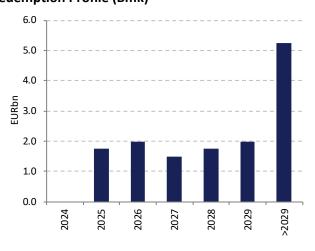
Regional Distribution



Spread Development



Redemption Profile (Bmk)





NIBC Bank

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

NIBC Bank NV

	Rating	Outlook
Fitch	BBB	Positive
Moody's*	A3	Stable
S&P	BBB	Stable

Homepage

www.nibc.com

* LT Bank Deposits

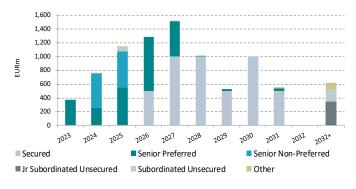
NIBC Bank is a medium-sized bank headquartered in The Hague, with subsidiaries located in the UK, Germany and Belgium. With nearly 600 employees, NIBC serves around 450,000 retail customers and 450 corporate customers. It is also a 100% subsidiary of NIBC Holding, which was taken over by Blackstone Inc. at the end of 2020. NIBC divides its products into three main categories, which are Mortgages (private housing, originate-to-manage and buyto-let), Asset-Backed Finance (financing of commercial real estate, shipping and infrastructure) and Platforms (for the automotive business). In financial year 2022, NIBC adjusted its reporting on the back of efforts to strengthen the business strategy in 2021, which included a focus on the three aforementioned main product groups. For example, NIBC now divides its business into five segments: Mortgages, Asset-Backed Finance, Platforms, Non-Core Activities and Treasury & Group functions. Geographically, the focus of the bank's activities is reflected in the Dutch share of 93% in pre-tax profit in FY 2022, followed by Germany (4%), UK (2%) and Belgium (1%). Around 45% of the funding mix at NIBC comprises retail funding. In terms of wholesale funding, the focus is primarily on secured and unsecured instruments, which account for shares of 20% and 23% respectively of the overall funding mix (FY 2022). Over the long term, NIBC's activities are geared towards the Paris climate agreement. In 2021, for example, NIBC published its Green Bond Framework, which is intended to exclusively finance renewable energies and sustainable buildings. A green bond with a total volume of EUR 750m was then issued towards the end of 2022.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	16,700	18,477	18,287
Total Securities	1,683	1,479	1,201
Total Deposits	11,137	11,333	11,227
Tier 1 Common Capital	1,631	1,630	1,621
Total Assets	21,055	22,658	22,692
Total Risk-weighted Assets	7,640	8,572	9,187

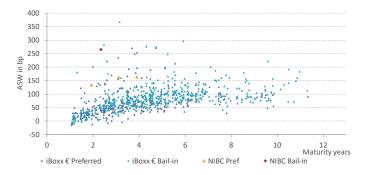
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	386	361	386
Net Fee & Commission Inc.	43	46	47
Net Trading Income	-20	89	-4
Operating Expense	205	229	229
Credit Commit. Impairment	132	36	19
Pre-tax Profit	62	226	178

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.79	1.66	1.72	Liquidity Coverage Ratio	216.00	184.00	206.00
ROAE	3.00	9.43	7.27	IFRS Tier 1 Leverage Ratio	7.78	7.24	7.22
Cost-to-Income	50.37	46.14	48.70	NPL/Loans at Amortised Cost	2.15	2.72	2.22
Core Tier 1 Ratio	21.35	19.02	17.64	Reserves/Loans at Amort. Cost	1.09	1.08	1.07

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Diversification of funding mix
- Profitability

- Franchise
- Risk profile (corporate loan book)
- Economic development



NIBC Bank - Mortgage (Soft Bullet)

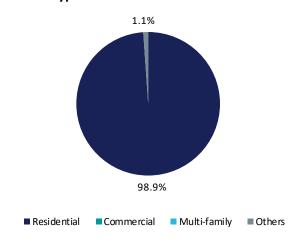
Netherlands =

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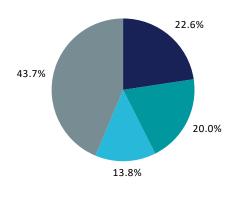
Cover Pool Data

Cover pool volume (EURm)	1,469	Rating (Moody's)	-
Amount outstanding (EURm)	1,000	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	46.9%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	23% Noord-Holland	RRL	a-
Number of loans	5,398	JRL	aa-
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	20.2%
WAL (cover pool)	19.7y	PCU	-
WAL (covered bonds)	5.3y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	60.8%	LCR level (Bmk)	1
LTV (unindexed)	68.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB
Fixed interest (cover pool) Fixed interest (covered bonds) LTV (indexed) LTV (unindexed)	100.0% 100.0% 60.8% 68.0%	Outstanding ESG BMKs LCR eligible LCR level (Bmk) Risk weight	Ye 109

Borrower Types



Regional Distribution

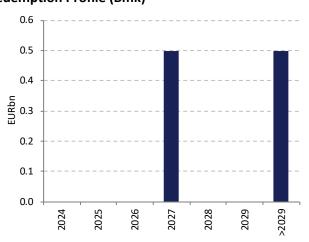


■ Noord-Holland ■ Zuid-Holland ■ Noord-Brabant ■ Others

Spread Development



Redemption Profile (Bmk)





NIBC Bank - Mortgage (CPT)

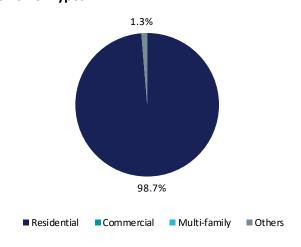
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Netherlands =

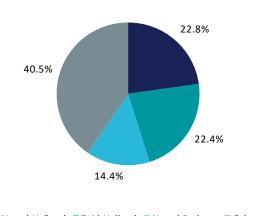
Cover Pool Data

Cover pool volume (EURm)	4,267	Rating (Moody's)	-
Amount outstanding (EURm)	3,500	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	21.9%	Rating (DBRS)	-
Committed OC	15.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	23% Noord-Holland	RRL	a-
Number of loans	18,444	JRL	aa-
Number of borrowers	n/a	Unused notches	N/A
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	2.5%
WAL (cover pool)	17.4y	PCU	8
WAL (covered bonds)	5.5y	Recovery uplift	2
Fixed interest (cover pool)	98.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	54.3%	LCR level (Bmk)	1
LTV (unindexed)	71.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	CPT

Borrower Types



Regional Distribution

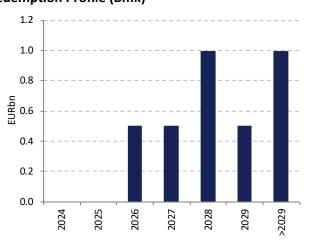


■ Noord-Holland ■ Zuid-Holland ■ Noord-Brabant ■ Others

Spread Development



Redemption Profile (Bmk)





NN Bank

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Nationale-Nederlanden Bank NV/The Netherlands

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	A-	Positive

Homepage

www.nn-group.com

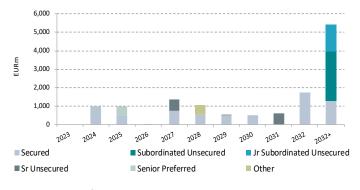
Nationale-Nederlanden Bank N.V. (NN Bank) is the banking arm of NN Group N.V. and is the fifth-largest retail bank in the Netherlands as measured by the size of the mortgage portfolio (data as at FY 2022). The NN Group is a financial services provider that is listed on the stock exchange, employing around 16,000 staff and serving 20 million customers in 11 countries (data as at Feb. 2022). The NN Group reports across the following segments: Netherlands Life (FY 2022: 9% of net income), Netherlands Non-Life (10%), Insurance Europe (9%), Japan Life (9%) and Banking (5%). The Other segment (58%) is also operated in order to incorporate smaller business segments, among other aspects. In April 2022, the NN Group completed the sale of the asset management business (NN Investment Partners) to Goldman Sachs for a price of EUR 1.7bn, which had first been announced in August 2021. In addition, the acquisitions of the MetLife businesses in Poland and Greece were finalised in January and April 2022 respectively. Strategically, the NN Group focuses on pensions, insurance and classic banking products in the core markets of Europe and Japan. In geographical terms, the banking business is focused solely on the Netherlands. This is operated either online or via partners. NN Bank offers mortgage loans as well as savings and investment products to more than 1 million customers. In the fourth quarter of 2022, the NN Group published a Climate Action Plan. In this context, the emissions linked to the corporate investment portfolio are to be reduced by 40% by 2030, while investments in the area of climate solutions should be more than doubled (to EUR 11bn in 2030).

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	21,255	21,228	20,335
Total Securities	959	1,280	1,069
Total Deposits	15,743	15,904	16,228
Tier 1 Common Capital	1,047	1,063	981
Total Assets	25,465	24,363	24,160
Total Risk-weighted Assets	6,001	6,120	6,408

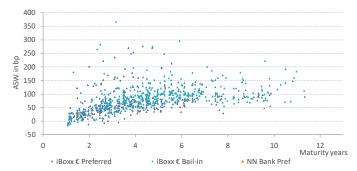
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	275	244	257
Net Fee & Commission Inc.	102	130	98
Net Trading Income	26	6	13
Operating Expense	230	253	257
Credit Commit. Impairment	-	-	-
Pre-tax Profit	169	136	110

Redemption Profile (NN Group)



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.11	0.99	1.07	Liquidity Coverage Ratio	157.91	173.16	172.55
ROAE	11.69	9.13	7.64	IFRS Tier 1 Leverage Ratio	4.14	4.37	4.07
Cost-to-Income	57.13	66.69	70.23	NPL/Loans at Amortised Cost	1.24	0.49	0.47
Core Tier 1 Ratio	17.44	17.37	15.31	Reserves/Loans at Amort. Cost	0.12	0.05	0.05

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 31.07.2023$

Strengths / Opportunities

- Strategic unit of the Group (complementary products)
- Risk profile (mortgage portfolio)
- Profitability

- Concentration risks (Netherlands)
- Relative size of the bank
- Deposit stability of online accounts



NN Bank - Mortgage (Soft Bullet)

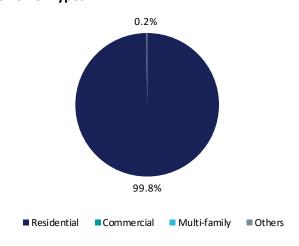
Netherlands =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

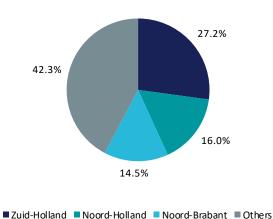
Cover Pool Data

Cover pool volume (EURm)	7,742	Rating (Moody's)	-
Amount outstanding (EURm)	5,595	Rating (S&P)	AAA
-thereof ≥ EUR 500m	94.7%	Rating (Fitch)	-
Current OC (nominal)	38.4%	Rating (DBRS)	-
Committed OC	0.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	27% Zuid-Holland	RRL	a+
Number of loans	33,688	JRL	aa+
Number of borrowers	n/a	Unused notches	3
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	2.5%
WAL (cover pool)	21.7y	PCU	-
WAL (covered bonds)	7.1y	Recovery uplift	-
Fixed interest (cover pool)	99.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	53.9%	LCR level (Bmk)	1
LTV (unindexed)	74.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

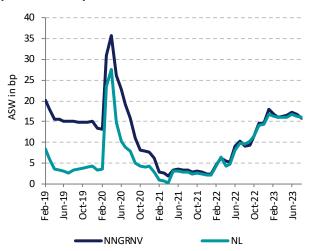
Borrower Types



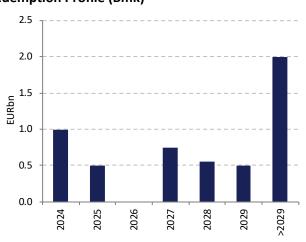
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Rabobank

Netherlands =



2022Y

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Cooperatieve Rabobank UA

	Rating	Outlook
Fitch	A+	Stable
Moody's	Aa2	Stable
S&P	A+	Stable

Homepage

www.rabobank.com

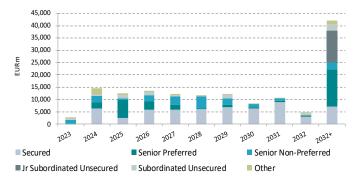
The cooperative Rabobank Group (headquarters: Amsterdam) is one of the leading retail banks in the Netherlands. The Group serves approximately 9.1 million customers in the Netherlands and a further 0.2 million international customers in 36 countries. The Group comprises 2.2 million members at 78 local banks in addition to the umbrella organisation Rabobank. The geographical breakdown of the loan portfolio to retail customers (EUR 433bn as at H1 2022) is as follows: 68% is attributable to the Netherlands, 11% to North America, 8% to the rest of Europe and 7% to Australia and New Zealand, while South America and Asia account for shares of 4% and 2% respectively. According to information from the bank itself, the Group has a market share in its domestic market of around 17% for mortgage loans and 35% for savings products (FY 2022). Reporting takes place in the following segments: Domestic Retail Banking (FY 2022: 63% of net income), Wholesale & Rural (37%), Leasing (12%), Property Development (4%) and Other Segments (16% loss). In strategic terms, Rabobank pursues a bancassurance approach in the Netherlands, while internationally the focus is on the agricultural and food sectors. Deposits totalling EUR 397bn account for the majority of the funding mix (70%). At the end of 2022, Rabobank announced that it was being investigated by the Dutch Public Prosecution Service for potential violations of the country's anti-money laundering/countering the financing of terrorism (AML/CFT) law and by the European Commission for alleged breaches of antitrust law. In the long term, Rabobank's activities are geared towards the Paris climate agreement. As at FY 2022, three green bonds with a total volume in excess of EUR 2.5bn are outstanding.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	438,074	438,915	429,767
Total Securities	47,853	39,618	42,498
Total Deposits	361,821	373,128	397,033
Tier 1 Common Capital	34,647	36,846	38,372
Total Assets	632,258	639,231	628,513
Total Risk-weighted Assets	205,773	211,855	240,376

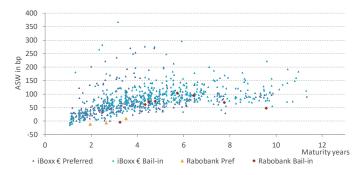
Income Statement 2020Y 2021Y Net Interest Income 7,997 8,351

•			
Net Interest Income	7,997	8,351	9,149
Net Fee & Commission Inc.	1,780	2,008	2,106
Net Trading Income	117	809	-68
Operating Expense	7,090	7,766	7,716
Credit Commit. Impairment	1,913	-475	344
Pre-tax Profit	1,496	4,877	3,919

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.34	1.35	1.48	Liquidity Coverage Ratio	192.77	186.64	173.32
ROAE	2.67	8.79	6.21	IFRS Tier 1 Leverage Ratio	5.74	5.94	6.32
Cost-to-Income	65.76	63.82	63.85	NPL/Loans at Amortised Cost	3.18	2.11	2.01
Core Tier 1 Ratio	16.84	17.39	15.96	Reserves/Loans at Amort. Cost	1.07	0.79	0.66

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in the Netherlands
- Capitalisation
- Risk profile

- Market and inflationary environment
- Dependency on wholesale funding (positive trend)
- Cost efficiency



Rabobank - Mortgage

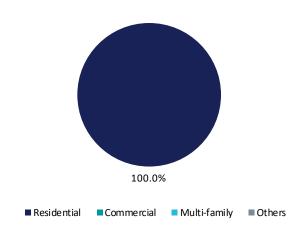
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Netherlands =

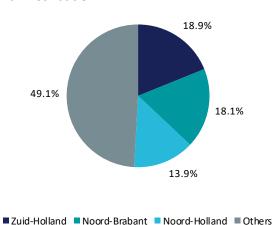
Cover Pool Data

Cover pool volume (EURm)	21,332	Rating (Moody's)	Aaa
Amount outstanding (EURm)	19,243	Rating (S&P)	-
-thereof ≥ EUR 500m	98.7%	Rating (Fitch)	-
Current OC (nominal)	10.9%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Netherlands	Collateral score	5.0%
Main region	19% Zuid-Holland	RRL	-
Number of loans	92,097	JRL	-
Number of borrowers	88,615	Unused notches	-
Avg. exposure to borrowers (EUR)	240,727	AAA credit risk (%)	-
WAL (cover pool)	18.9y	PCU	-
WAL (covered bonds)	9.0y	Recovery uplift	-
Fixed interest (cover pool)	98.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	54.0%	LCR level (Bmk)	1
LTV (unindexed)	67.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

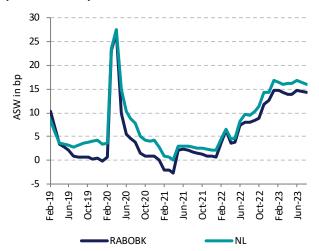
Borrower Types



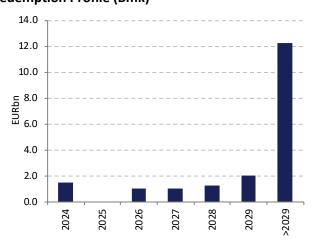
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Van Lanschot Kempen

Netherlands



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Van Lanschot Kempen NV

	Rating	Outlook
Fitch	BBB+	Positive
Moody's	-	-
S&P	BBB+	Stable

Homepage

www.vanlanschotkempen.com

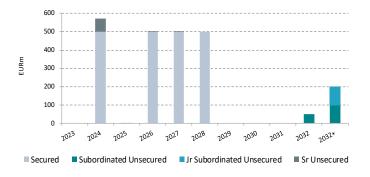
Van Lanschot Kempen (VLK) is an independent asset management firm which specialises in preserving and generating assets for its customers (AuM FY 2022: EUR 107.8bn). VLK is active on the market with its three brands Van Lanschot, Kempen and Evi (online asset management). As at FY 2022, VLK employed 1,780 staff. Its shares are listed on the Amsterdam stock exchange. As at 09 April 2023, the main shareholders are Romij BV and LDDM Holding with stakes of 10.1% and 9.8% respectively. VLK conducts its business activities across the following four segments: Private Clients, Wholesale & Institutional Clients, Investment Banking Clients and Other. In this context, the geographical focus of the bank is on the Benelux countries. For example, as at FY 2022 approximately 82% of total operating earnings was attributable to the Netherlands, 13% to Belgium and 4% to other jurisdictions. Mortgage loans account for around 71% of the lending portfolio (FY 2022). The majority of the funding mix is made up of deposits (75%, FY 2022), followed by bonds (12%). As announced on 22 December 2022, the remaining 30% in Mercier Vanderlinden was acquired in April 2023. From 2024 onwards, Van Lanschot Belgium and Mercier Vanderlinden will jointly operate under the name Mercier Vanderlinden. In addition, the acquisition of the online investment platform Robeco was announced on 2 February 2023, as well as a partnership with Robeco, which is set to be merged with Evi. By 2050, VLK intends to develop into a Net-Zero Wealth Manager and, to this end, has launched an investment fund to promote sustainable and regenerative agriculture.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	8,448	8,876	9,364
Total Securities	3,754	2,971	3,722
Total Deposits	10,141	11,730	12,726
Tier 1 Common Capital	1,021	931	879
Total Assets	15,149	16,307	17,018
Total Risk-weighted Assets	4,195	3,921	4,272

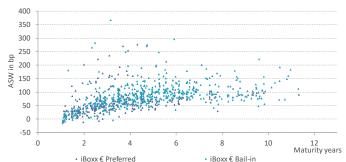
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	152	148	152
Net Fee & Commission Inc.	296	386	408
Net Trading Income	-32	-16	4
Operating Expense	387	438	466
Credit Commit. Impairment	-	-	-
Pro-tay Profit	54	178	119

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.07	0.98	0.95	Liquidity Coverage Ratio	177.40	172.00	178.30
ROAE	3.73	10.40	6.04	IFRS Tier 1 Leverage Ratio	7.04	5.89	5.33
Cost-to-Income	87.33	73.16	80.55	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	24.34	23.74	20.56	Reserves/Loans at Amort. Cost	0.75	0.55	0.43

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Wealth Management strategy
- Capitalisation
- · Funding and liquidity profile

- Market penetration
- Fixed-cost basis
- Dependency on market performance



Van Lanschot – Mortgage (SB)

Netherlands =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cov	/er	Poo	Data

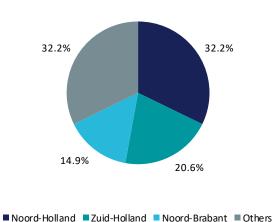
Cover pool volume (EURm)	1,393	Rating (Moody's)	-
Amount outstanding (EURm)	1,000	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	39.3%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	32% Noord-Holland	RRL	a
Number of loans	2,519	JRL	aa
Number of borrowers	n/a	Unused notches	2
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	27.3%
WAL (cover pool)	15.9y	PCU	-
WAL (covered bonds)	3.8y	Recovery uplift	-
Fixed interest (cover pool)	97.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	51.9%	LCR level (Bmk)	1
LTV (unindexed)	66.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

100.0%



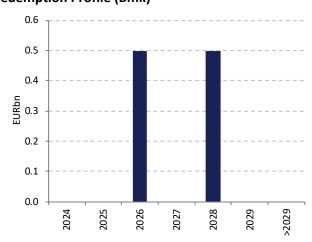
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Van Lanschot – Mortgage (CPT)

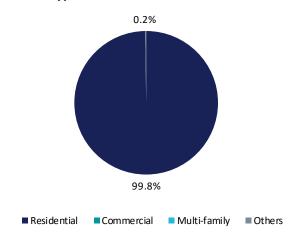
Netherlands =

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

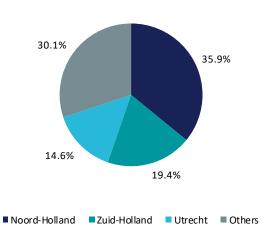
Cover Pool Data

Cover pool volume (EURm)	702	Rating (Moody's)	-
Amount outstanding (EURm)	500	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	40.4%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Netherlands	Collateral score	-
Main region	36% Noord-Holland	RRL	a
Number of loans	1,609	JRL	aa
Number of borrowers	n/a	Unused notches	N/A
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	2.5%
WAL (cover pool)	16.6y	PCU	8
WAL (covered bonds)	3.7y	Recovery uplift	2
Fixed interest (cover pool)	99.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	45.2%	LCR level (Bmk)	1
LTV (unindexed)	59.0%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	СРТ

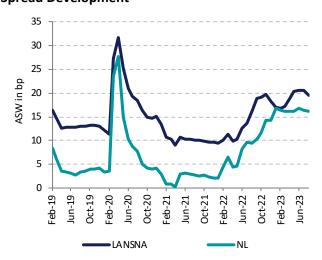
Borrower Types



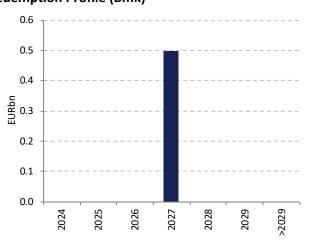
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

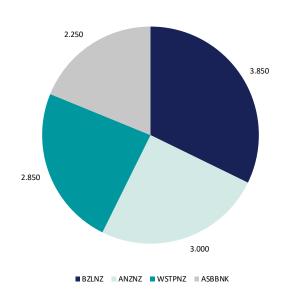
New Zealand



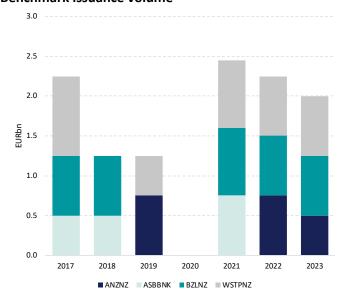
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 16.21bn	Outstanding volume (Bmk)	EUR 11.95bn
Amount outstanding	EUR 10.59bn	Number of benchmarks	17
Number of issuer	4	Outstanding ESG volume (Bmk)	-
No of cover pools	4	Number of ESG benchmarks	-
there of M / PS / others	4/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 2A	Maturity types	SB

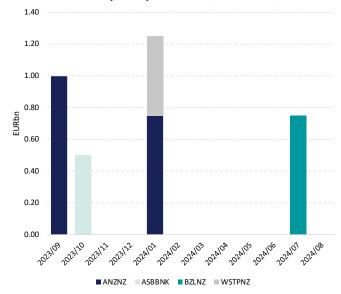
Outstanding benchmark volume¹ (EURbn)



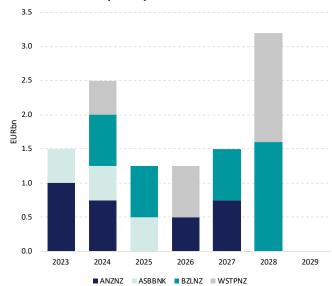
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12





ANZ Bank New Zealand

New Zea-



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ANZ Bank New Zealand Ltd

	Rating	Outlook
Fitch	A+	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.anz.co.nz

Headquartered in Auckland, ANZ Bank New Zealand Ltd. (ANZ NZ) is the largest financial group in New Zealand as measured by assets (FY 2022: NZD 201bn). The bank is a wholly owned subsidiary of the Australia and New Zealand Banking Group (ANZ), which, following a restructuring programme at the start of 2023, is now managed as an operational entity of the ANZ Group Holding Limited (ANZGHL). ANZ NZ accounts for a share of 16% of its parent company's assets and 28% of net income in the consolidated earnings (FY 2022). ANZ NZ divides its business into four segments: Personal (retail business and asset management; FY 2022: 43.7% of pre-tax profit), Business (corporate client business; 32.5%), Institutional (financial market solutions for global stakeholders and institutions; 11.8%) and Other (treasury and back office services; 12.0%). With a market share of over 31% (FY 2022), the market leading position for deposits is particularly noteworthy. The loan portfolio is divided into Housing Loans (69%), Business Loans (18%), Agriculture (10%) as well as Consumer and Other Loans (each 1%). At 31%, ANZ NZ as a high market share in New Zealand for mortgage loans as well as 25% for corporate and agricultural loans (FY 2022). In total, deposits account for 81.1% of the funding mix at ANZ NZ, with 18.9% attributable to wholesale funding (FY 2022). The share of covered bonds in wholesale funding amounted to 19.4%. The parent company ANZ signed up to the Net-Zero Banking Alliance in 2021, which is pursuing the goal of becoming carbon neutral by 2050. As is the case for ANZ, ANZ NZ is also focused on restructuring its loan portfolio to become carbon neutral by 2050. Its financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	83,992	84,979	84,836
Total Securities	18,388	19,684	13,388
Total Deposits	74,667	75,308	75,118
Tier 1 Common Capital	7,758	7,707	7,763
Total Assets	110,256	116,220	108,958
Total Risk-weighted Assets	57,988	62,218	63,655

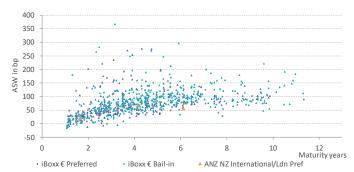
Income Statement

(EURm)	2021Y	2022Y	2022Y
Net Interest Income	2,020	2,294	2,294
Net Fee & Commission Inc.	327	327	327
Net Trading Income	106	319	319
Operating Expense	956	1,004	1,004
Credit Commit. Impairment	-67	24	24
Pre-tax Profit	1.582	1.927	1.927

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.03	2.01	2.26	Liquidity Coverage Ratio	-	-	-
ROAE	11.84	13.20	11.73	IFRS Tier 1 Leverage Ratio	7.47	7.24	7.50
Cost-to-Income	38.83	33.99	33.99	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	13.38	12.39	12.20	Reserves/Loans at Amort. Cost	0.41	0.44	0.51

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- National market position (largest bank in NZ)
- Integration in ANZ Group
- Available capital buffer for potential losses

- NZ real estate market harbours risks of a correction
- Interest and inflation environment
- Dependency on wholesale funding



ANZ Bank New Zealand – Mortgage

New Zealand



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

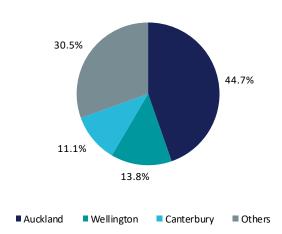
Cover Pool Data

Cover pool volume (EURm)	6,282	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,760	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	127.6%	Rating (DBRS)	-
Committed OC	11.1%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% New Zealand	Collateral score	5.0%
Main region	45% Auckland	RRL	-
Number of loans	54,539	JRL	-
Number of borrowers	31,748	Unused notches	-
Avg. exposure to borrowers (EUR)	197,837	AAA credit risk (%)	-
WAL (cover pool)	19.2y	PCU	6
WAL (covered bonds)	1.6y	Recovery uplift	1
Fixed interest (cover pool)	96.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	41.6%	LCR level (Bmk)	2A
LTV (unindexed)	48.9%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

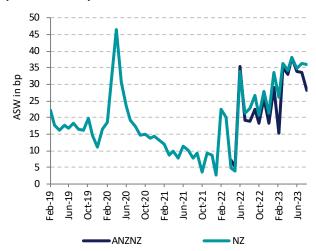
Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family ■ Others

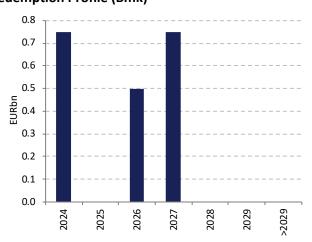
Regional Distribution



Spread Development



Redemption Profile (Bmk)





ASB Bank

New 7ealand



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ASB Bank Ltd

	Rating	Outlook
Fitch	A+	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.asb.co.nz

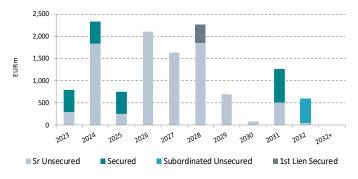
Auckland Savings Bank (ASB Bank, ASB), headquartered in Auckland, is a wholly owned subsidiary of ASB Holdings Limited, which in turn forms part of the Commonwealth Bank of Australia (CBA). As measured by its balance sheet total of NZD 124bn, ASB is the thirdlargest bank in New Zealand as at the end of September 2022. The institute had a market share of 19.6% for loans and 19.9% for deposits in the New Zealand banking system as at the end of June 2022. ASB has a workforce of around 5,900 employees that serves more than 1.3 million retail and business customers. The focus of the bank is on retail customers and SMEs, while institutional customers and larger corporations are served by the New Zealand arm of CBA. The credit institute is classified as a domestic systemically important bank (D-SIB) by the Reserve Bank of New Zealand, which is the country's financial supervisory authority. ASB is divided into the following segments: Retail Banking, Business Banking, Corporate Banking, Private Banking, Wealth & Insurance and Other. The strongest segments as measured by net interest income are Retail Banking (FY 2022: 48.2%) and Business Banking (39.7%). In contrast, Corporate Banking and Private Banking, Wealth & Insurance are less important, accounting for shares of 6.5% and 3.7% of the net interest income respectively, but nonetheless do serve to diversify the bank's income sources. The loan portfolio of ASB is heavily focused on housing loans (69%, FY 2022), followed by corporate loans (19%) and agricultural loans (10%). Consumer loans and "other" account for a share of 1% in each case. In terms of the debt instruments issued by the bank, the share of covered bonds amounted to 15.4% (FY 2022). The financial year ends on 30 June.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	58,522	62,363	63,253
Total Securities	5,185	5,044	4,430
Total Deposits	45,490	47,900	48,997
Tier 1 Common Capital	4,594	4,988	5,794
Total Assets	66,326	72,347	73,834
Total Risk-weighted Assets	36,065	40,663	41,216

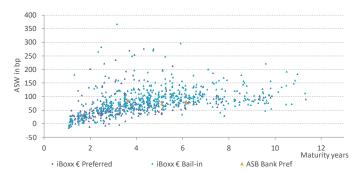
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	1,391	1,570	929
Net Fee & Commission Inc.	279	286	124
Net Trading Income	61	88	40
Operating Expense	665	710	365
Credit Commit. Impair-	-3	25	29
Pre-tay Profit	1 070	1 229	701

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.18	2.24	2.54	Liquidity Coverage Ratio	-	-	-
ROAE	15.49	15.39	16.54	IFRS Tier 1 Leverage Ratio	6.96	6.97	7.96
Cost-to-Income	38.39	36.14	33.35	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	12.74	12.27	14.06	Reserves/Loans at Amort. Cost	0.55	0.52	0.55

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- National market position
- Capitalisation
- Member of the CBA Group

- Dependency on wholesale funding
- Downside risks for the NZ real estate market
- Slowdown in credit growth



ASB Bank - Mortgage

New Zealand

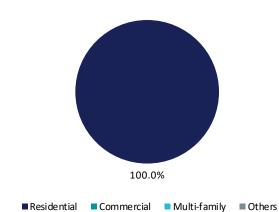


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

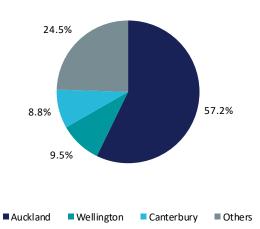
Cover Pool Data

Cover pool volume (EURm)	2,879	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,091	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	37.7%	Rating (DBRS)	-
Committed OC	11.7%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% New Zealand	Collateral score	5.0%
Main region	57% Auckland	RRL	-
Number of loans	19,572	JRL	-
Number of borrowers	26,981	Unused notches	-
Avg. exposure to borrowers (EUR)	106,715	AAA credit risk (%)	-
WAL (cover pool)	21.2y	PCU	6
WAL (covered bonds)	3.5y	Recovery uplift	1
Fixed interest (cover pool)	96.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	35.0%	LCR level (Bmk)	2A
LTV (unindexed)	41.5%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

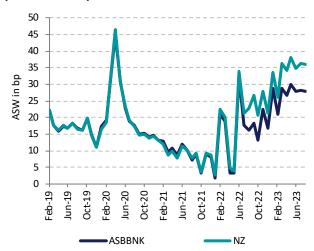
Borrower Types



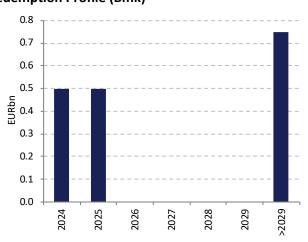
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Bank of New Zealand

New Zealand



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bank of New Zealand

	Rating	Outlook
Fitch	A+	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.bnz.co.nz

The Bank of New Zealand (BNZ), headquartered in Auckland, is the second-largest bank in New Zealand as measured by total assets (FY 2022: NZD 131.4bn). BNZ is a wholly owned subsidiary of the National Australia Bank (NAB). The Reserve Bank of New Zealand (RBNZ), the country's financial supervisory authority, has classified BNZ as a domestic systemically important bank (D-SIB). BNZ mainly focuses on the New Zealand market and covers the following customer groups: retail, business, agriculture, corporate and institutional. The two main business segments are Partnership Banking (retail as well as SME customers in addition to agricultural enterprises; FY 2022: 62.9% of operating income before taxes) and Corporate and Institutional Banking (financial solutions for corporates and institutional customers; 32.9%), alongside the third segment Other (4.2%). In March 2022, BNZ had a domestic market share of 17.4% for deposits and 18.6% for assets. The loan portfolio primarily consists of mortgage loans (FY 2022: 55%), followed by loans in the agricultural sector (15%). Shares of 12% and 8% are respectively attributable to the other commercial properties and corporate loans. Geographically speaking, the loan portfolio is concentrated on the Auckland region (48%), with the regions of Wellington and Canterbury each accounting for a share of 11%. A total of 67.6% of the Group's funding mix consists of deposits, while 32.4% is made up of wholesale funding (FY 2022). In the ESG segment, BNZ is pursuing a net zero emissions target in its deposit and loan portfolio by 2050, which is to be achieved by way of sustainable loans and bonds. The financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	56,504	57,404	58,206
Total Securities	7,332	11,422	7,710
Total Deposits	42,445	42,877	42,991
Tier 1 Common Capital	5,582	5,839	5,989
Total Assets	71,083	75,938	72,906
Total Risk-weighted Assets	40,555	45,603	45,167

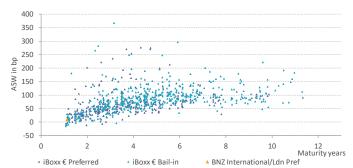
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	1,287	1,521	862
Net Fee & Commission Inc.	-	-	-
Net Trading Income	163	152	70
Operating Expense	623	651	340
Credit Commit. Impair-	-22	54	47
Pro-tay Profit	1 083	1 10/	659

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.92	2.04	2.31	Liquidity Coverage Ratio	-	-	-
ROAE	14.26	13.50	14.37	IFRS Tier 1 Leverage Ratio	8.09	8.23	8.52
Cost-to-Income	36.99	34.28	32.51	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	13.76	12.80	13.26	Reserves/Loans at Amort. Cost	0.81	0.81	0.84

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- National market position
- Asset quality
- Integration in NAB Group

- Dependency on wholesale funding
- Rising financing costs
- Downside risks for the NZ real estate market



Bank of New Zealand – Mortgage

New Zealand

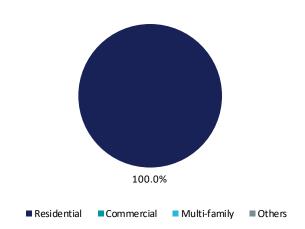


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

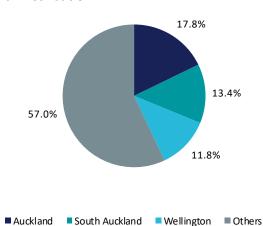
Cover Pool Data

Cover pool volume (EURm)	3,476	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,872	Rating (S&P)	-
-thereof ≥ EUR 500m	92.4%	Rating (Fitch)	AAA
Current OC (nominal)	21.0%	Rating (DBRS)	-
Committed OC	9.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% New Zealand	Collateral score	5.1%
Main region	18% Auckland	RRL	-
Number of loans	33,189	JRL	-
Number of borrowers	33,189	Unused notches	-
Avg. exposure to borrowers (EUR)	104,729	AAA credit risk (%)	-
WAL (cover pool)	29.8y	PCU	6
WAL (covered bonds)	3.5y	Recovery uplift	1
Fixed interest (cover pool)	88.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	40.9%	LCR level (Bmk)	2A
LTV (unindexed)	43.7%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

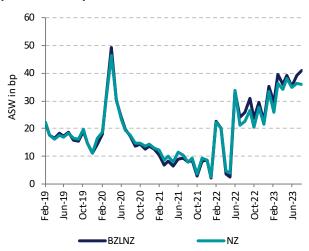
Borrower Types



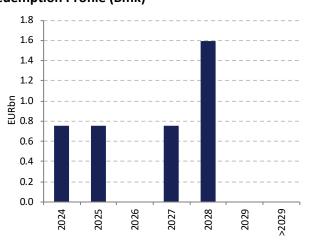
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Westpac New Zealand

New Zealand



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Westpac New Zealand Ltd

	Rating	Outlook
Fitch	A+	Stable
Moody's	A1	Stable
S&P	AA-	Stable

Homepage

www.westpac.co.nz

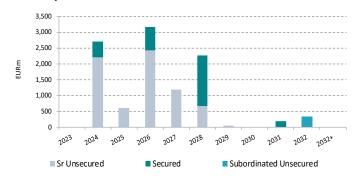
Westpac New Zealand Ltd. (WNZ) is a wholly owned subsidiary of the Westpac Banking Corporation (WBC, headquarters: Australia) via a series of intermediate holding companies. WNZ is responsible for 10.3% of total assets and 16.9% of the parent company's earnings (data as at FY 2022). Westpac New Zealand has been offering its customers a broad palette of banking products and services for retail and corporate customers since 1861. WNZ has more than 5,000 employees, who serve around 1.3 million customers in New Zealand. The New Zealand financial supervisory authority, the Reserve Bank of New Zealand (RBNZ), has classified WNZ as a domestic systemically important bank (D-SIB). In New Zealand, the bank boasts a market share of 16.9% and 18.7% for total assets and total deposits respectively (FY 2022). Its operating segments are divided into Consumer Banking and Wealth (FY 2022: 43.7% pre-tax profit), Institutional and Business Banking (55.4%), Investments & Insurance (1.0%) and the non-operating segment Reconciling Items (-0.1%), which constitutes a collective item for all business transactions not grouped under one of the operating segments. The loan portfolio mainly consists of residential mortgages (June 2022: 66%) as well as corporate and agricultural loans (19% and 10%). Deposits represent the main source of funding for the bank at 74.2% (FY 2022). Over the long term, WNZ, like its parent company, is striving to achieve a carbon neutral loan portfolio by 2050. The financial year ends on 30 September each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	55,276	55,981	56,619
Total Securities	4,285	4,571	5,304
Total Deposits	47,360	46,716	47,600
Tier 1 Common Capital	4,425	4,336	4,335
Total Assets	67,060	69,234	70,361
Total Risk-weighted Assets	32,056	39,244	39,170

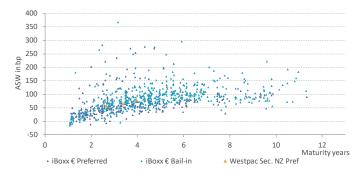
Income Statement

meonic statement			
(EURm)	2021Y	2022Y	2023H1
Net Interest Income	1,219	1,392	771
Net Fee & Commission Inc.	139	153	65
Net Trading Income	-	-	-
Operating Expense	648	687	365
Credit Commit. Impair-	-50	-16	91
Pre-tax Profit	762	884	383

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.98	2.04	2.23	Liquidity Coverage Ratio	-	-	-
ROAE	11.60	12.21	10.57	IFRS Tier 1 Leverage Ratio	6.65	6.31	6.21
Cost-to-Income	47.66	44.20	43.50	NPL/Loans at Amortised Cost	0.66	0.56	0.70
Core Tier 1 Ratio	13.80	11.05	11.07	Reserves/Loans at Amort. Cost	0.51	0.41	0.54

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in NZ
- Integration in WBC Group
- Capital buffer for potential losses

- Interest and inflation environment
- Dependency on wholesale funding
- Downside risks for the NZ real estate market



Westpac New Zealand – Mortgage

New Zealand

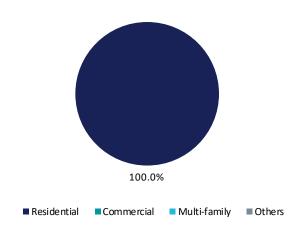


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

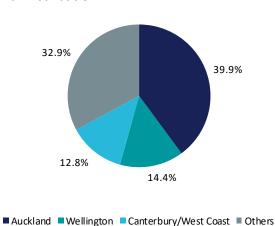
Cover Pool Data

Cover pool volume (EURm)	3,578	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,872	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	24.6%	Rating (DBRS)	-
Committed OC	11.1%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% New Zealand	Collateral score	5.0%
Main region	40% Auckland	RRL	-
Number of loans	35,008	JRL	-
Number of borrowers	35,008	Unused notches	-
Avg. exposure to borrowers (EUR)	102,196	AAA credit risk (%)	-
WAL (cover pool)	23.1y	PCU	6
WAL (covered bonds)	3.8y	Recovery uplift	1
Fixed interest (cover pool)	94.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	41.0%	LCR level (Bmk)	2A
LTV (unindexed)	47.4%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

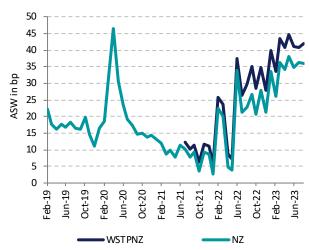
Borrower Types



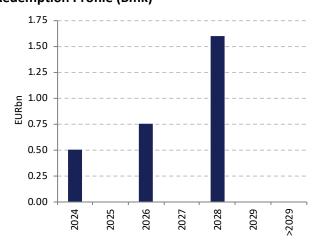
Regional Distribution



Spread Development



Redemption Profile (Bmk)





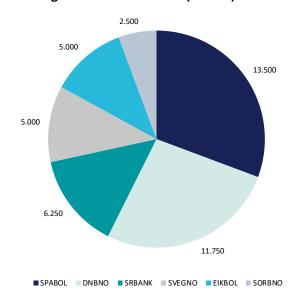
Market Overview Covered Bonds

Norway

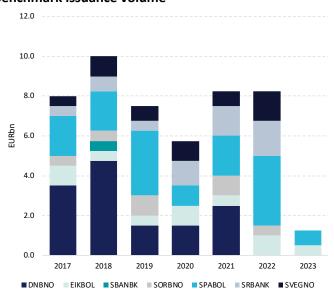
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 120.14bn	Outstanding volume (Bmk)	EUR 44.00bn
Amount outstanding	EUR 84.01bn	Number of benchmarks	53
Number of issuer	7	Outstanding ESG volume (Bmk)	EUR 9.50bn
No of cover pools	7	Number of ESG benchmarks	12
there of M / PS / others	7/0/0	Outstanding volume (SBmk)	EUR 0.75bn
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	3
Best possible LCR level	Level 1	Maturity types	SB

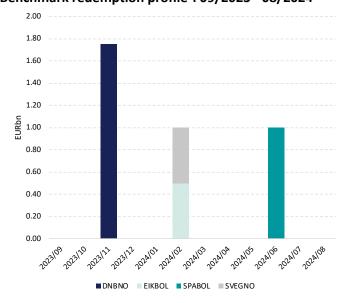
Outstanding benchmark volume¹ (EURbn)



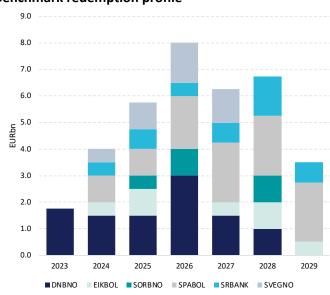
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



DNB Bank

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

DNB Bank ASA

	Rating	Outlook
Fitch	-	-
Moody's*	Aa2	Stable
S&P	AA-	Stable

Homepage

www.ir.dnb.no

*Senior Unsecured

DNB Bank ASA (DNB) is the leading financial group in Norway with market capitalisation of NOK 303bn (FY 2022). The group is listed on the Oslo stock exchange, with the largest shareholder being the Norwegian government with a stake of 34%. DNB serves around 2 million retail and 229,000 corporate customers. The focus is on digital distribution channels with the network consisting of just 56 branches (FY 2022). Business activities of DNB are split across the following four segments: Personal Customers (33% of operating income as at FY 2022), Corporate Customers (63%), Other Operations (5%) and Eliminations (-0.3%). The segment Other Operations includes risk management and pension products, among other things. DNB is the market leader in Norway with high market shares, especially for deposits from retail customers (FY 2022: 32%) and corporate customers (37%), SME loans (37%) as well as investment funds for private investors (38%). In 2022, the acquisition of the Norwegian SBanken was completed, with the merger taking place in May 2023. A total of 53% of the loan portfolio is focussed on retail customers (of which 47% is attributable to mortgages), and commercial and residential property accounting for 10% and 6% respectively. DNB has set itself sustainability targets: For example, it plans to increase sustainability-related funding and investments to NOK 1,500bn by 2030 (as at FY 2022: NOK 391bn). Meanwhile, it aims to increase capital invested in sustainable investment funds to NOK 200bn by 2025 (FY 2022: NOK 27bn). DNB is an active issuer of green bonds with an outstanding volume of EUR 9bn (8 March 2023).

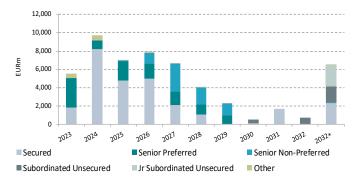
Balance Sheet

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	174,156	186,291	173,084
Total Securities	59,482	66,908	56,196
Total Deposits	124,531	132,645	125,861
Tier 1 Common Capital	18,894	18,434	17,675
Total Assets	291,362	307,094	304,128
Total Risk-weighted Assets	97,155	100,863	93,577

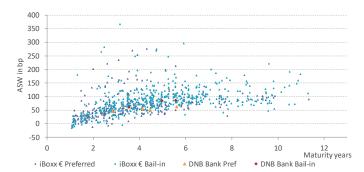
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	3,808	4,783	2,637
Net Fee & Commission Inc.	1,084	1,023	482
Net Trading Income	352	397	331
Operating Expense	2,342	2,536	1,218
Credit Commit. Impairment	-85	-27	70
Pre-tax Profit	3,215	4,019	2,290

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.38	1.61	1.86	Liquidity Coverage Ratio	141.53	136.69	153.00
ROAE	10.30	14.04	15.46	IFRS Tier 1 Leverage Ratio	6.76	6.40	6.20
Cost-to-Income	42.62	38.73	33.80	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	19.45	18.28	18.89	Reserves/Loans at Amort. Cost	0.58	0.40	0.39

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market leader in the Norwegian financial sector
- Efficiency through digital infrastructure
- Capitalisation

- Dependency on capital market funding
- Exposure to cyclical sectors
- Concentration risks for property loans



DNB Boligkreditt – Mortgage

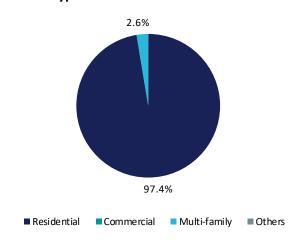
Norway **#**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

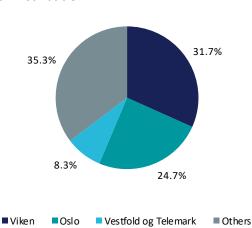
Cover Pool Data

Cover pool volume (EURm)	58,124	Rating (Moody's)	Aaa
Amount outstanding (EURm)	29,093	Rating (S&P)	AAA
-thereof ≥ EUR 500m	34.4%	Rating (Fitch)	-
Current OC (nominal)	99.8%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Norway	Collateral score	5.0%
Main region	32% Viken	RRL	aa+
Number of loans	352,908	JRL	aaa
Number of borrowers	306,413	Unused notches	5
Avg. exposure to borrowers (EUR)	189,692	AAA credit risk (%)	3.4%
WAL (cover pool)	14.3y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	5.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	62.1%	LCR eligible	Yes
LTV (indexed)	51.0%	LCR level (Bmk)	1
LTV (unindexed)	60.6%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

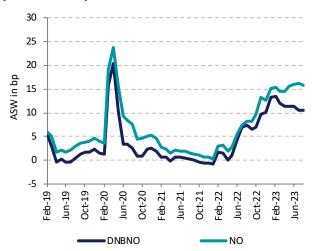
Borrower Types



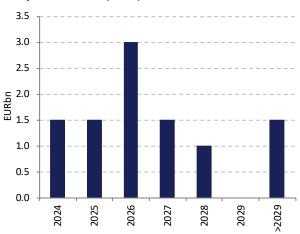
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Eika Boligkreditt

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Eika Boligkreditt AS

	Rating	Outlook
Fitch	-	-
Moody's	Baa1	Positive
S&P	-	-

Homepage

www.eikbol.no

Eika Boligkreditt AS (EikBol) provides banks in the Eika Alliance with funding in the form of covered bonds. The Eika Alliance, in addition to the EikBol and Eika Gruppen AS, also consists of 50 independent local banks. With 1,800 staff in total, it serves around 750,000 customers (FY 2022) across 177 branches. EikBol is owned by 59 local banks, which includes 50 banks in the Eika Alliance and OBOS (Norwegian Cooperative Housing Association). The Eika Alliance is the third largest banking group in Norway with its nationwide market share of Norwegian retail customer loans standing at 9.4% (FY 2022). Except for larger cities, its market penetration is as high as 80%. Eika Gruppen AS acts as a financial services group offering its member banks a complete infrastructure platform. The EikBol owners guarantee that the bank is sufficiently capitalised at all times and that liquidity requirements for the next twelve months are always met. In 2022, Hemne Sparebank and Afjord Sparebank announced that they would be merging (as at April 2023) along with Andebu Sparebank, Larvikbanken and Skagerrak Sparebank (to merge as at February 2024). The banks will remain members of the Eika Alliance. Geographically, the loan portfolio (FY 2022) is focussed on the provinces Viken (28.3%), Tröndelag (17.8%) and Vestfold and Telemark (10.8%). A total of 9.7% of the loan portfolio is attributable to the province Oslo. Funding via covered bonds by EikBol accounts for around 21% of the complete Eika Alliance funding mix, while the share of customer deposits stands at around 58% (Q2 2022).

Balance Sheet						
(EURm)	2021Y	2022Y	2023Q1			
Net Loans to Customers	9,115	9,115	8,395			
Total Securities	2,232	2,816	2,218			
Total Deposits	-	-	-			
Tier 1 Common Capital	510	569	528			
Total Assets	11.464	12.021	10.849			

3,722

3,681

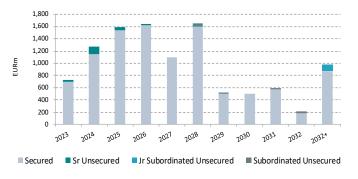
3,407

Income Statement

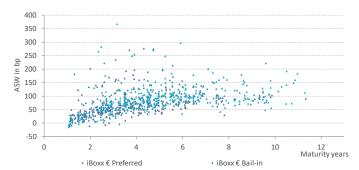
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	82	52	15
Net Fee & Commission Inc.	-76	-38	-10
Net Trading Income	3	-14	6
Operating Expense	7	9	2
Credit Commit. Impairment	-	-	-
Pro-tay Profit	6	-6	9

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	-	-	-	Liquidity Coverage Ratio	103.01	101.45	101.71
ROAE	0.89	-0.60	4.82	IFRS Tier 1 Leverage Ratio	4.48	4.87	4.92
Cost-to-Income	67.76	-	18.02	NPL/Loans at Amortised Cost	0.05	0.03	-
Core Tier 1 Ratio	13 70	15.46	15 49	Reserves/Loans at Amort Cost	_	_	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Probability of support from Eika Alliance

- No explicit guarantee of support from Alliance
- Concentrated credit risk on domestic market



Eika Boligkreditt – Mortgage

Norway **•**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

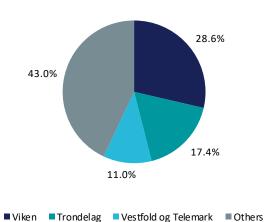
Cover Pool Data

Cover pool volume (EURm)	9,874	Rating (Moody's)	Aaa
Amount outstanding (EURm)	9,056	Rating (S&P)	-
-thereof ≥ EUR 500m	55.2%	Rating (Fitch)	-
Current OC (nominal)	9.0%	Rating (DBRS)	-
Committed OC	5.0%	TPI	High
Cover type	Mortgage	TPI leeway	2
Main country	100% Norway	Collateral score	5.0%
Main region	29% Viken	RRL	-
Number of loans	52,555	JRL	-
Number of borrowers	51,550	Unused notches	-
Avg. exposure to borrowers (EUR)	157,260	AAA credit risk (%)	-
WAL (cover pool)	11.7y	PCU	-
WAL (covered bonds)	4.0y	Recovery uplift	-
Fixed interest (cover pool)	8.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	56.3%	LCR eligible	Yes
LTV (indexed)	50.6%	LCR level (Bmk)	1
LTV (unindexed)	53.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

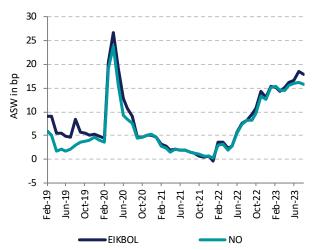
Borrower Types

3.7% Residential Commercial Multi-family ©

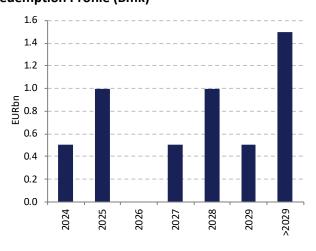
Regional Distribution



Spread Development



Redemption Profile (Bmk)





SpareBank 1 Boligkreditt

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

SpareBank 1 Boligkreditt

	Rating	Outlook
Fitch	-	-
Moody's	A2	Positive
S&P	-	-

Homepage

www.sparebank1.no

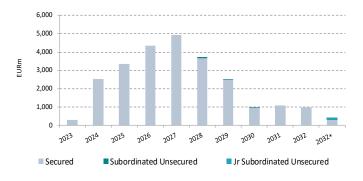
SpareBank 1 Boligkreditt (SpaBol) is the funding vehicle for members of the SpareBank 1 Alliance. The Alliance consists of 13 independent savings banks, all of which are independent from one another and which are all shareholders of SpaBol, with the exception of SpareBank 1 SR-Bank. The SpareBank 1 Alliance is the second largest financial group in Norway as measured by assets (FY 2022) and it is the market leader in Norway for private property loans (24%). Serving approximately 1.1 million retail customers and 100,000 SMEs, the aim of the alliance is to use synergy effects to strengthen the individual savings banks, without limiting their individual business operations or hampering regional customer relationships. For example, this is achieved by way of joint companies offering non-core banking products. The aim of SpareBank 1 Group Holding Co., is to combine under one roof, insurance, asset management and debt collection/sales of receivables. While SpareBank 1 Development Holding Co. offers members of the Alliance services in the areas of marketing, procurement, distribution and IT systems. The majority of the loan portfolio of the Sparebank 1 Alliance consists mainly of retail (FY 2022: 67%) and commercial property loans (14%). Geographically, the mortgage portfolio of SpaBol is principally split between the provinces Viken (FY 2022: 27%), Tröndelag (16%), Oslo (13%) and Inland (10%). In addition to deposits (FY 2022: 42%), a significant portion of funding for the individual savings banks is generated by way of covered bond issuances (23%), which are for the most part placed via SpaBol. In return for the refinancing, the savings banks have committed to provide SpaBol with equity capital and liquidity.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	22,238	24,020	23,190
Total Securities	3,372	3,174	3,114
Total Deposits	-	-	-
Tier 1 Common Capital	1,094	1,085	996
Total Assets	25,774	27,342	26,595
Total Risk-weighted Assets	5,594	5,889	5,908

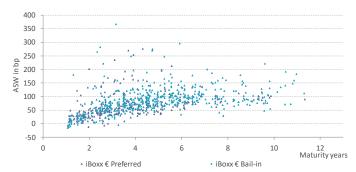
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	231	163	39
Net Fee & Commission Inc.	-206	-124	-26
Net Trading Income	-9	-29	7
Operating Expense	4	4	1
Credit Commit. Impairment	-1	2	-0
Pro-tay Profit	13	5	19

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	-	-	-	Liquidity Coverage Ratio	102.52	100.26	104.51
ROAE	0.88	0.35	5.03	IFRS Tier 1 Leverage Ratio	4.29	4.14	3.81
Cost-to-Income	25.02	41.55	5.86	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	19.56	18.42	16.86	Reserves/Loans at Amort. Cost	0.01	0.01	0.01

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Incorporation in the SpareBank 1 Alliance with a support obligation

- Credit risk concentration
- Dependency on wholesale funding



SpareBank 1 Boligkreditt - Mortgage

Norway **#**

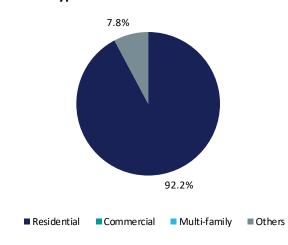


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

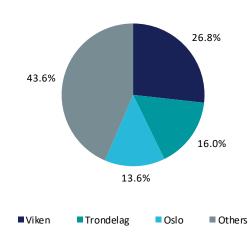
Cover Pool Data

Cover pool volume (EURm)	24,379	Rating (Moody's)	Aaa
Amount outstanding (EURm)	23,073	Rating (S&P)	-
-thereof ≥ EUR 500m	58.5%	Rating (Fitch)	-
Current OC (nominal)	5.7%	Rating (DBRS)	-
Committed OC	5.0%	TPI	High
Cover type	Mortgage	TPI leeway	3
Main country	100% Norway	Collateral score	5.0%
Main region	27% Viken	RRL	-
Number of loans	151,075	JRL	-
Number of borrowers	147,511	Unused notches	-
Avg. exposure to borrowers (EUR)	152,387	AAA credit risk (%)	-
WAL (cover pool)	22.5y	PCU	-
WAL (covered bonds)	4.9y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	62.7%	LCR eligible	Yes
LTV (indexed)	51.9%	LCR level (Bmk)	1
LTV (unindexed)	60.1%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

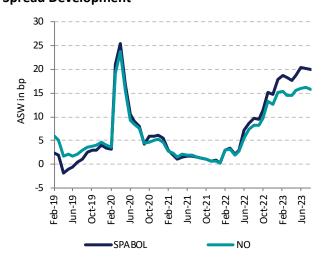
Borrower Types



Regional Distribution



Spread Development



Redemption Profile (Bmk)





SpareBank 1 SR-Bank

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

SpareBank 1 SR-Bank ASA

	Rating	Outlook
Fitch	Α	Stable
Moody's	A1	Positive
S&P	-	-

Homepage

www.sparebank1.no

SpareBank 1 SR-Bank ASA (SR-Bank) is a founding member of the SpareBank 1 Alliance, Norway's second largest financial group. It consists of 13 independent savings banks who have joined forces to leverage synergy effects in, for example, IT infrastructure and joint branding. SR-Bank concentrates its business in south and west Norway, and is a market leader in its home region of Rogaland. Its commercial activities are divided into the Retail Market, Large Corporates, SME & Agriculture and Capital Market segments. The institution also holds several subsidiaries and equity participations, enabling SR-Bank to offer a wider range of financial services. In June 2022 the bank announced that it would place greater focus on the capital markets by increasing its participation in Sparebank 1 Markets AS to 33.3%. Its own capital markets business was transferred to Sparebank 1 Markets AS in Q1 2023. SR-Bank has also entered into an additional cooperation with Swedbank. As part of this cooperation, the bank will take on Swedish corporate customers' portfolios in Norway from Swedbank and vice versa, and the banks will jointly manage them across borders. The loan portfolio consists of 61% retail and 39% corporate customers. Refinancing via covered bonds is implemented through the wholly owned subsidiary SR-Boligkreditt. As a Group, SR-Bank has set itself the target of recording net zero carbon emissions in the financing and investments segments by 2050 at the latest. Furthermore, a total of NOK 50bn is to be put towards financing sustainable activities by 2030 (as at FY 2022: NOK 15.5bn).

Balance Sheet
(EURm)
Netternete Costemen

(
Net Loans to Customers	22,814	23,865	22,579
Total Securities	6,220	6,976	7,367
Total Deposits	13,740	14,066	13,388
Tier 1 Common Capital	2,222	2,223	2,095
Total Assets	30,382	32,836	32,086
Total Risk-weighted Assets	12,773	12,757	12,027

2021Y

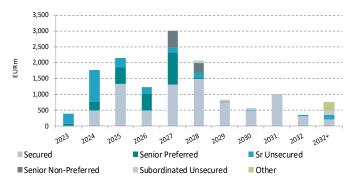
2022Y

202301

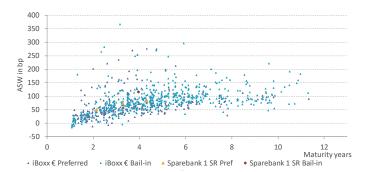
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	394	447	128
Net Fee & Commission Inc.	168	173	41
Net Trading Income	22	13	-5
Operating Expense	267	280	69
Credit Commit. Impairment	19	0	3
Pre-tax Profit	378	417	103

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.39	1.43	1.62	Liquidity Coverage Ratio	168.00	175.40	244.24
ROAE	12.00	12.17	12.03	IFRS Tier 1 Leverage Ratio	7.40	7.10	6.86
Cost-to-Income	40.80	40.73	39.49	NPL/Loans at Amortised Cost	1.32	1.28	1.15
Core Tier 1 Ratio	17.39	17.42	17.42	Reserves/Loans at Amort, Cost	0.78	0.69	0.64

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position

- Exposure to oil sector and CRE business
- Dependency on wholesale funding



SR-Boligkreditt – Mortgage

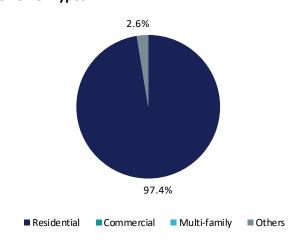
Norway **#**

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

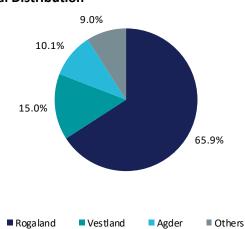
Cover Pool Data

Cover pool volume (EURm)	8,798	Rating (Moody's)	Aaa
Amount outstanding (EURm)	7,406	Rating (S&P)	-
-thereof ≥ EUR 500m	84.4%	Rating (Fitch)	-
Current OC (nominal)	18.8%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	3
Main country	100% Norway	Collateral score	5.0%
Main region	66% Rogaland	RRL	-
Number of loans	51,599	JRL	-
Number of borrowers	50,851	Unused notches	-
Avg. exposure to borrowers (EUR)	168,574	AAA credit risk (%)	-
WAL (cover pool)	15.4y	PCU	-
WAL (covered bonds)	4.9y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	79.4%	LCR eligible	Yes
LTV (indexed)	56.4%	LCR level (Bmk)	1
LTV (unindexed)	61.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



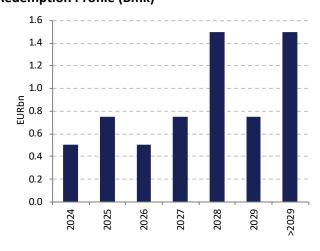
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Sparebanken More

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparebanken More

	Rating	Outlook
Fitch	-	-
Moody's	A1	Stable
S&P	-	-

Homepage

www.sbm.no

The roots of Sparebanken More (SBM) extend back to the year 1843. Its shares have been listed on the Oslo stock exchange since 1989. The independent institution (SBM has not joined any alliances) employs 374 members of staff (FY 2022) and operates 26 business centres in its home region of More og Romsdal. Among others, the bank offers private individuals, businesses and the public sector services deposits, loans, asset management and insurance. The focus of the institution is on retail customers at 66.5% of the loan portfolio (FY 2022), while property loans account for 11.9%. SBM also has four wholly owned subsidiaries: More Boligkreditt AS (MBOL), More Eiendomsmegling AS (MES), Sparebankeiendom AS (SBE) and Storgata 41-45 Molde AS (SGM). The purpose of MBOL is to purchase mortgages from SBM and to refinance them by issuing covered bonds. Moreover, SBM secures payment obligations of MBOL to bondholders for the next 12 months via revolving credit facilities. MES acts as a property market broker for retail and corporate customers. SBE and SGM are real estate companies of SBM that own and manage the bank's commercial properties. SBM reports across the following segments: Retail (FY 2022: 53.5% of operating income), Corporate (42.9%) and Real Estate Brokerage (1.9%) as well as the non-operating segment Other (5.1%) and Elimination (-3.4%). Most of the bank's funding comes from deposits (FY 2022: 55.5%) and covered bonds (27.4%). SBM plans to become carbon neutral by 2050.

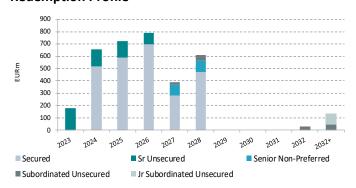
Ba	lance	Sheet
/	ın\	

2021Y	2022Y	2023Q1
6,979	7,226	6,852
1,118	1,163	1,181
4,177	4,168	3,892
608	611	561
8,264	8,500	8,197
3,524	3,412	3,213
	6,979 1,118 4,177 608 8,264	6,979 7,226 1,118 1,163 4,177 4,168 608 611 8,264 8,500

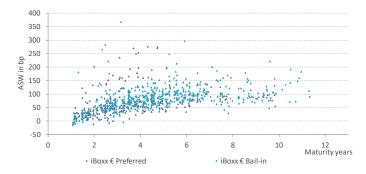
Income Statement

moonie statement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	125	150	41
Net Fee & Commission Inc.	19	21	4
Net Trading Income	4	-2	-
Operating Expense	63	74	18
Credit Commit. Impairment	5	-0	3
Pre-tax Profit	82	100	24

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.55	1.78	1.96	Liquidity Coverage Ratio	122.39	184.68	177.36
ROAE	8.66	10.10	10.35	IFRS Tier 1 Leverage Ratio	7.39	7.25	6.89
Cost-to-Income	42.24	42.54	39.60	NPL/Loans at Amortised Cost	0.07	0.06	0.11
Core Tier 1 Ratio	17.24	17.89	17.47	Reserves/Loans at Amort. Cost	0.50	0.43	0.47

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Deposit basis

- Dependence on capital market funding
- Geographical credit concentration



More Boligkreditt – Mortgage

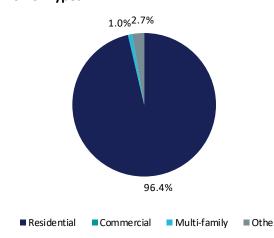
Norway ##

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

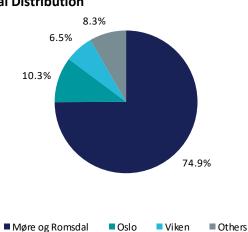
Cover Pool Data

Cover pool volume (EURm)	2,835	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,271	Rating (S&P)	-
-thereof ≥ EUR 250m	33.0%	Rating (Fitch)	-
Current OC (nominal)	24.8%	Rating (DBRS)	-
Committed OC	5.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Norway	Collateral score	5.0%
Main region	75% Møre og Romsdal	RRL	-
Number of loans	19,240	JRL	-
Number of borrowers	17,232	Unused notches	-
Avg. exposure to borrowers (EUR)	160,099	AAA credit risk (%)	-
WAL (cover pool)	19.0y	PCU	-
WAL (covered bonds)	2.8y	Recovery uplift	-
Fixed interest (cover pool)	6.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	46.1%	LCR eligible	Yes
LTV (indexed)	53.5%	LCR level (SBmk)	2A
LTV (unindexed)	57.6%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB

Borrower Types



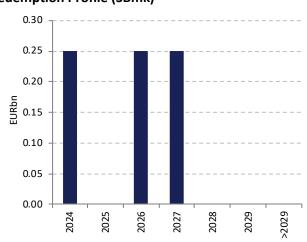
Regional Distribution



Spread Development



Redemption Profile (SBmk)





Sparebanken Sor

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparebanken Sor

	Rating	Outlook
Fitch	-	-
Moody's	A1	Positive
S&P	-	-

Homepage

www.sor.no

Sparebanken Sor (Sor) is an independent Norwegian universal bank headquartered in Kristiansand, which offers a wide-ranging product portfolio in private and corporate banking to private individuals, companies and public institutions. Sparebankstiftelsen Sparebanken Sor is the majority shareholder with a stake of 81.6%. Sor equity certificates are traded on the Oslo stock exchange. The bank operates on an exclusively regional basis, with a geographic focus on the south of Norway, particularly the Agder region, where it has a leading market share of 29.8% in the retail segment (FY 2022). Sparebanken Sor is active as a property and insurance broker as well as a provider of leasing products through its subsidiaries and equity participations in companies. The bank divides its business activities into the three operating segments Retail Market (FY 2022: 45.6% of operating income), Corporate Market (38.9%) and Sormegleren (5.7%). The non-operating segment Undistributed and Elimination (9.9%) includes the HR and capital market departments, among others. Sor funding mainly comprises customer deposits (FY 2022: 51%) and covered bonds (36%). Its wholly owned subsidiary Sparebanken Sor Boligkreditt serves as the funding vehicle through covered bonds. The share of covered bonds in capital market funding stands at 77%. In November 2022, the bank issued a sustainable covered bond in EUR benchmark format. Sor plans to operate on a carbon neutral basis by 2050 and also intends to reduce the CO₂ emissions from its loan and investment portfolios by 40% by as early as 2030.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	11,643	11,763	10,960
Total Securities	2,331	2,329	2,188
Total Deposits	6,302	6,230	5,883
Tier 1 Common Capital	1,298	1,297	1,222
Total Assets	14,390	14,952	13,587

7,914

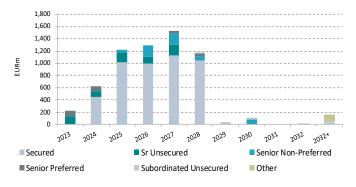
7,585

7,139

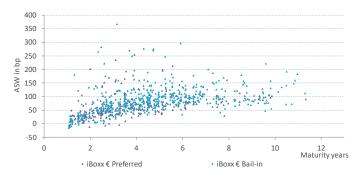
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	191	235	65
Net Fee & Commission Inc.	41	41	8
Net Trading Income	-1	-9	-0
Operating Expense	100	113	28
Credit Commit. Impairment	-2	7	-0
Pre-tax Profit	152	160	48

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.38	1.60	1.85	Liquidity Coverage Ratio	135.27	156.05	145.00
ROAE	8.63	8.39	11.68	IFRS Tier 1 Leverage Ratio	9.08	8.82	9.08
Cost-to-Income	39.82	40.40	36.71	NPL/Loans at Amortised Cost	0.70	0.56	0.59
Core Tier 1 Ratio	16.40	17.10	17.12	Reserves/Loans at Amort. Cost	0.36	0.32	0.32

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Capitalisation
- Deposit basis

- Credit risk concentration
- Dependency on capital market funding
- Profitability



Sparebanken Sor Boligkreditt – Mortgage

Norway **#**



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

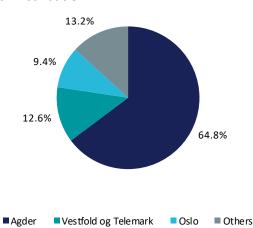
Cover Pool Data

Cover pool volume (EURm)	4,859	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,195	Rating (S&P)	-
-thereof ≥ EUR 500m	59.6%	Rating (Fitch)	-
Current OC (nominal)	15.8%	Rating (DBRS)	-
Committed OC	5.0%	TPI	High
Cover type	Mortgage	TPI leeway	4
Main country	100% Norway	Collateral score	5.0%
Main region	65% Agder	RRL	-
Number of loans	39,660	JRL	-
Number of borrowers	31,434	Unused notches	-
Avg. exposure to borrowers (EUR)	145,434	AAA credit risk (%)	-
WAL (cover pool)	8.5y	PCU	-
WAL (covered bonds)	3.6y	Recovery uplift	-
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	52.6%	LCR eligible	Yes
LTV (indexed)	51.8%	LCR level (Bmk)	1
LTV (unindexed)	60.9%	Risk weight	10%
Loans in arrears	0.4%	Maturity structure (Bmk)	SB

Borrower Types

5.9% 94.1% ■ Residential ■Commercial ■ Multi-family

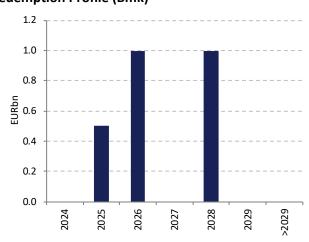
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Sparebanken Vest

Norway



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Sparebanken Vest

	Rating	Outlook
Fitch	-	-
Moody's*	Aa3	Stable
S&P	-	-

Homepage

www.spv.no

The Bergen-based Sparebanken Vest (SV) is one of Norway's largest independent savings banks. The main shareholder of the bank, which is listed on the Oslo stock exchange, is Sparebankstiftinga Hardanger (FY 2022: 10.9%). Around 750 employees work in more than 35 branches, offering the complete product range of a universal bank to its retail and corporate customers. Furthermore, subsidiaries and shareholdings operate insurance services as well as bond trading and leasing. SV focuses its activities on the west of Norway. However, with its digital concepts, it is also seeking to build a nationwide presence. SV holds its highest market share in the retail customer business in the Vestland region (Q1 2022: 28.3%), followed by Rogaland (7.6%), while under the brand name Bulder Bank (Bulder), the bank offers its customers an exclusively digital banking concept. The loan portfolio comprises the following segments: Retail (FY 2022: 75%) and Corporate (25%). The majority of borrowers are based in Vestland (FY 2022: 64.2%), followed by Rogaland (17.9%), More og Romsdal (3.9%) and other provinces (14.0%). In the remaining provinces, loans from the digital bank Bulder make up the largest share of the portfolio at 55%. Approximately 83% of the capital market funding of SV (FY 2022) is comprised of covered bonds, which are issued via its wholly owned subsidiary Sparebanken Vest Boligkreditt AS. The institution aims to reach a target of net zero CO₂ emissions by as early as 2040, along with the interim goal of gradually reducing its carbon footprint by 2025 (-50% CO2 emissions in comparison with 2018). This had already been achieved by 2020.

Balance Sheet 2022Y (EURm) 2021Y 2023Q1 20,258 21,321 20,350 Net Loans to Customers 3,261 **Total Securities** 2.582 3.194 10,174 **Total Deposits** 9.064 10,663 Tier 1 Common Capital 1,615 1,677 1,592 **Total Assets** 23,412 25,056 24,151

9,258

9,272

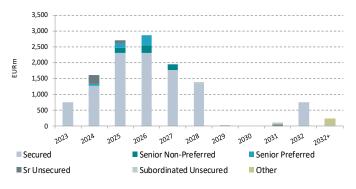
8,630

Income Statement

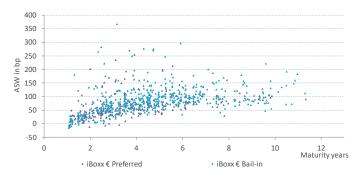
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	325	396	107
Net Fee & Commission Inc.	78	90	18
Net Trading Income	5	-1	-0
Operating Expense	151	167	41
Credit Commit. Impairment	-3	5	3
Pro-tay Profit	301	347	86

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.50	1.61	1.78	Liquidity Coverage Ratio	140.99	152.49	155.00
ROAE	13.19	13.99	16.20	IFRS Tier 1 Leverage Ratio	6.95	6.75	6.63
Cost-to-Income	34.35	32.49	31.53	NPL/Loans at Amortised Cost	0.27	0.23	0.22
Core Tier 1 Ratio	17.44	18.09	18.45	Reserves/Loans at Amort. Cost	0.49	0.43	0.41

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Domestic market position (retail banking in particular) Geographical diversification

- Dependency on capital market funding

^{*}Senior Unsecured/LT Bank Deposits



Sparebanken Vest Boligkreditt – Mortgage

Norway ##



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

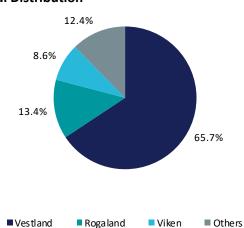
Cover Pool Data

Cover pool volume (EURm)	11,276	Rating (Moody's)	Aaa
Amount outstanding (EURm)	8,915	Rating (S&P)	-
-thereof ≥ EUR 500m	56.1%	Rating (Fitch)	-
Current OC (nominal)	26.5%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Norway	Collateral score	5.0%
Main region	66% Vestland	RRL	-
Number of loans	77,059	JRL	-
Number of borrowers	65,997	Unused notches	-
Avg. exposure to borrowers (EUR)	167,620	AAA credit risk (%)	-
WAL (cover pool)	12.8y	PCU	-
WAL (covered bonds)	3.3y	Recovery uplift	-
Fixed interest (cover pool)	13.6%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	51.9%	LCR eligible	Yes
LTV (indexed)	56.7%	LCR level (Bmk)	1
LTV (unindexed)	59.6%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

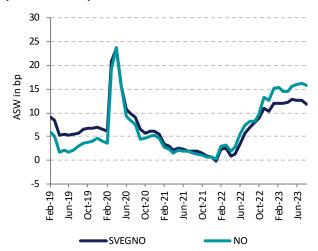
Borrower Types

1.9% 98.1% ■ Residential ■Commercial ■ Multi-family

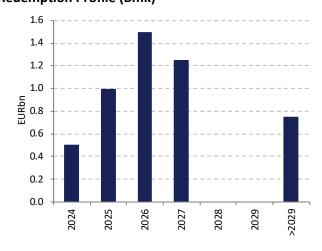
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

Poland

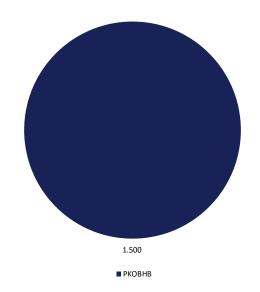


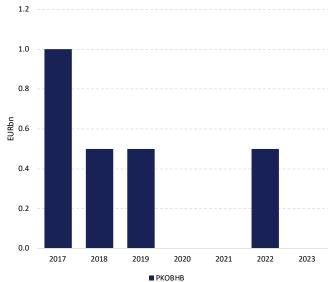
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 6.07bn	Outstanding volume (Bmk)	EUR 1.50bn
Amount outstanding	EUR 3.67bn	Number of benchmarks	3
Number of issuer	2	Outstanding ESG volume (Bmk)	EUR 0.50bn
No of cover pools	2	Number of ESG benchmarks	1
there of M / PS / others	2/0/0	Outstanding volume (SBmk)	EUR 0.60bn
Ratings (low / high)	AA+ / AA+	Number of subbenchmarks	2
Best possible LCR level	Level 1	Maturity types	SB/CPT

Outstanding benchmark volume¹ (EURbn)

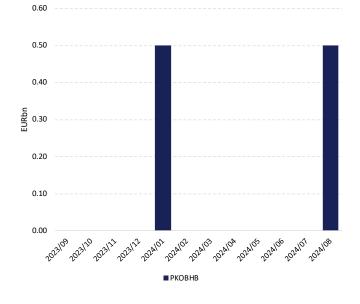
Benchmark issuance volume¹

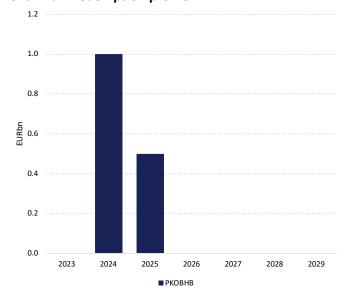




Benchmark redemption profile1: 09/2023 - 08/2024

Benchmark redemption profile12





Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



mBank Poland

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

mBank SA

	Rating	Outlook
Fitch	BBB-	Stable
Moody's*	Baa1	Negative
S&P	BBB	Stable

Homepage

www.mbank.pl

*LT Bank Deposits

Headquartered in Warsaw, mBank S.A. is Poland's fourth-largest bank as measured by total assets (FY 2022: PLN 210bn). Its shares are listed on the Warsaw stock exchange. The main shareholder in the institute (as at 31 December 2022) is Commerzbank at 69.2%. mBank is the parent company of the mBank S.A. Group. As a universal bank, mBank, including its subsidiaries, provides 5.6 million retail and 33,000 corporate customers with a broad range of financial products and services. It has been classified as an other systemically important institution (O-SII). Since 2007, the bank has also been active in the Czech Republic and Slovakia. However, the domestic market with 4.6 million retail customers remains the most important market. The bank divides its business activities into the following segments: Retail Banking (FY 2022: 51% of operating income), Corporate and Investment Banking (44%), Treasury and Other (4%) and FX Mortgage Loans (0.2%). In Poland, the bank has market shares worth 8.8% in each case for deposits and mortgage loans for retail customers (FY 2022). The lending portfolio mainly consists of corporate loans (Q1 2023: 44%), mortgage loans in the national currency (32%), loans to private persons (17%) and mortgage loans in foreign currency (6%). Refinancing activities at mBank are mainly centred around deposits from retail and corporate customers (Q1 2023: 89%). The subsidiary mBank Hipoteczny S.A. is a mortgage bank with a Pfandbrief licence and is wholly owned by mBank S.A. It diversifies the funding profile of the parent company through the issuance of securities with long-term maturities.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	25,657	25,683	25,973
Total Securities	12,017	12,146	12,608
Total Deposits	34,247	37,212	38,664
Tier 1 Common Capital	2,955	2,597	2,584
Total Assets	43,252	44,854	46,489

20,874

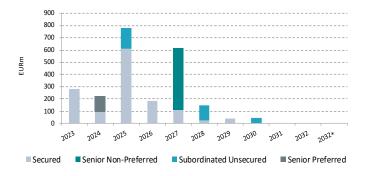
18.813

19,372

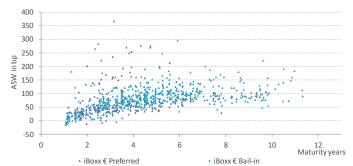
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	904	1,262	444
Net Fee & Commission Inc.	409	453	106
Net Trading Income	43	-10	-6
Operating Expense	1,353	1,620	417
Credit Commit. Impairment	189	170	36
Pre-tay Profit	-129	-23	100

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	2.14	3.00	4.05	Liquidity Coverage Ratio	239.29	193.39	197.35
ROAE	-7.23	-5.44	4.40	IFRS Tier 1 Leverage Ratio	6.91	5.84	5.60
Cost-to-Income	96.20	92.31	74.16	NPL/Loans at Amortised Cost	4.08	4.11	4.10
Core Tier 1 Ratio	14.16	13.81	13.34	Reserves/Loans at Amort. Cost	2.65	2.65	2.63

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Earnings capacity
- Funding profile
- Digitisation status

- Asset quality
- Risks from CHF mortgages
- Increased risk of litigation (contingent risk)



mBank Hipoteczny – Mortgage

Poland

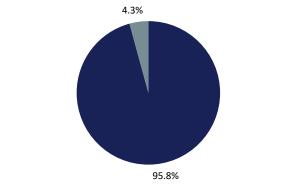


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cov	/er	Pool	Data

Cover pool volume (EU	Rm) 1,979	Rating (Moody's)	Aa1
Amount outstanding (E	EURm) 1,433	Rating (S&P)	-
-thereof ≥ EUR 250m	41.9%	Rating (Fitch)	-
Current OC (nominal)	38.2%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Poland	Collateral score	8.8%
Main region	34% Województwo mazowieckie	RRL	-
Number of loans	33,699	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borro	wers (EUR) n/a	AAA credit risk (%)	-
WAL (cover pool)	20.3y	PCU	-
WAL (covered bonds)	2.4y	Recovery uplift	-
Fixed interest (cover pe	ool) 6.0%	Outstanding ESG BMKs	No
Fixed interest (covered	bonds) 53.5%	LCR eligible	Yes
LTV (indexed)	-	LCR level (SBmk)	2A
LTV (unindexed)	73.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (SBmk)	SB/CPT

Borrower Types

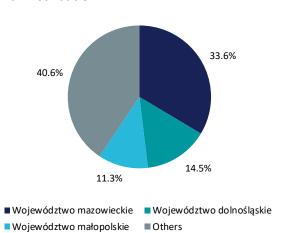


Commercial

Multi-family

■ Others

Regional Distribution

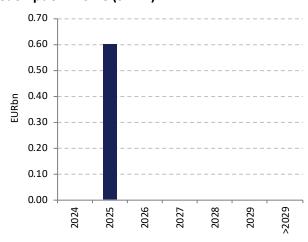


Spread Development

■ Residential



Redemption Profile (SBmk)





PKO Bank Polski

Poland



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Powszechna Kasa Oszczednosci Bank Polski SA

	Rating	Outlook
Fitch	-	-
Moody's*	А3	Stable
S&P	-	-

Homepage

www.pkobp.pl

PKO Bank Polski S.A. (PKO BP), headquartered in Warsaw, is the largest bank in Poland as measured by total assets (FY 2022: PLN 431bn). Its shares have been listed on the Warsaw stock exchange since 2004. With a stake of around 29.4%, the Polish state is the main shareholder of the bank (as at 31 December 2022), followed by NN-OPF with 8.7% and Allianz with 8.5%. PKO BP is a universal bank and is the parent company of the PKO Bank Polski S.A. Group, which, among other services, offers mortgages, leasing, factoring, investment funds and insurance products via its subsidiaries. Alongside the domestic market of Poland, the bank is active via subsidiaries in Ukraine, Sweden and the Republic of Ireland, in addition to branches in Germany, Czech Republic and Slovakia. Overall, around 25,000 employees serve approximately 11.7 million retail and corporate customers via roughly 970 branches (data as at FY 2022). The bank has a market share of 17% for loans and 18% for customer deposits. PKO BP reports across the Retail Segment (FY 2022: 71% of operating income), Corporate and Investment Segment (33%) and Transfer Center and Other (-3%). PKO Bank Hipoteczny S.A. (PKO BH) is a subsidiary of PKO BP, which specialises in the issuance of mortgage loans to retail customers. It is a strategically and operationally important part of PKO BP. In order to refinance its own mortgage portfolio, which is also supplemented by mortgages from its parent company, PKO BH issues covered bonds. In 2022, PKO BH placed its debut green mortgage covered bond in EUR benchmark format.

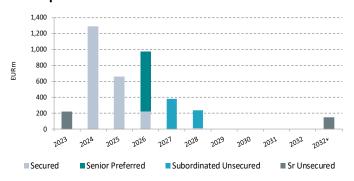
Income Statement

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	51,085	49,783	50,755
Total Securities	32,111	32,021	34,692
Total Deposits	70,271	72,416	74,730
Tier 1 Common Capital	8,593	8,175	7,977
Total Assets	91,156	92,200	94,885
Total Risk-weighted Assets	49,030	49,045	45,784

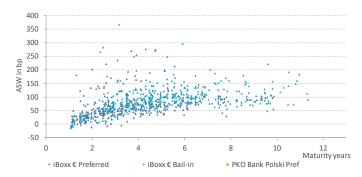
(EURm) 2021Y 2022Y 2023Q1

Net Interest Income	2,165	2,440	889
Net Fee & Commission Inc.	959	961	234
Net Trading Income	153	55	12
Operating Expense	1,585	2,072	486
Credit Commit. Impairment	272	321	69
Pre-tax Profit	1,427	1,018	-

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	2.60	2.86	3.97	Liquidity Coverage Ratio	193.25	159.76	164.08
ROAE	12.03	9.74	15.51	IFRS Tier 1 Leverage Ratio	9.88	9.39	8.80
Cost-to-Income	47.75	56.14	40.99	NPL/Loans at Amortised Cost	3.96	3.80	3.77
Core Tier 1 Ratio	17.53	16.67	17.42	Reserves/Loans at Amort. Cost	3.64	4.08	4.13

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- **Profitability**
- Funding profile

- NPL ratio
- Risks from CHF mortgages
- Risk of interest rate change for sovereign bond portfolio

^{*} Senior Unsecured



PKO Bank Hipoteczny – Mortgage

Poland

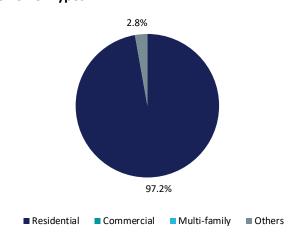


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

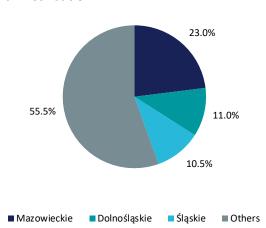
Cover Pool Data

Cover pool volume (EURm)	4,093	Rating (Moody's)	Aa1
Amount outstanding (EURm)	2,233	Rating (S&P)	-
-thereof ≥ EUR 500m	67.2%	Rating (Fitch)	-
Current OC (nominal)	83.3%	Rating (DBRS)	-
Committed OC	7.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% Poland	Collateral score	5.8%
Main region	23% Mazowieckie	RRL	-
Number of loans	103,213	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	20.0y	PCU	-
WAL (covered bonds)	1.4y	Recovery uplift	-
Fixed interest (cover pool)	10.9%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	70.4%	LCR eligible	Yes
LTV (indexed)	35.9%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB/CPT

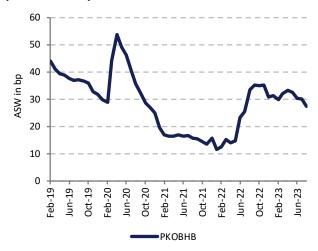
Borrower Types



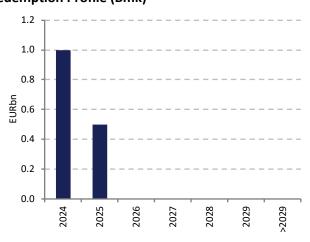
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

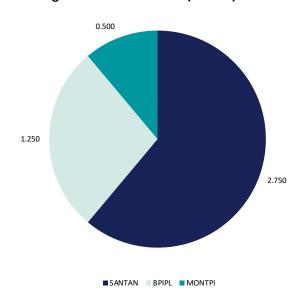
Portugal



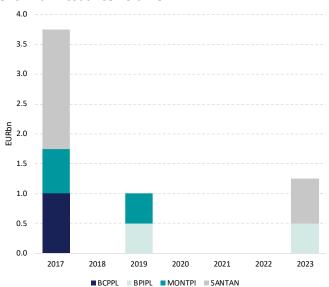
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 21.76bn	Outstanding volume (Bmk)	EUR 4.50bn
Amount outstanding	EUR 17.90bn	Number of benchmarks	6
Number of issuer	3	Outstanding ESG volume (Bmk)	-
No of cover pools	3	Number of ESG benchmarks	-
there of M / PS / others	3/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	A+ / AA+	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	SB, CPT

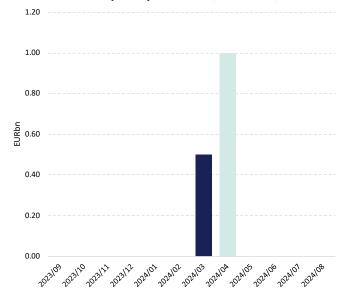
Outstanding benchmark volume¹ (EURbn)



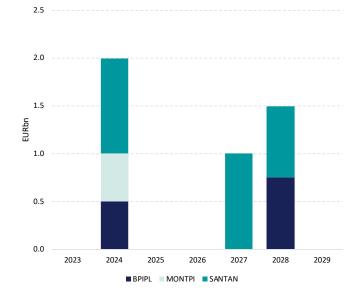
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12





Banco BPI

Portugal



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco BPI SA

	Rating	Outlook
Fitch	BBB+	Stable
Moody's	Baa1	Stable
S&P	BBB+	Stable

Homepage

www.bancobpi.pt

Headquartered in the Portuguese capital city of Lisbon, Banco BPI S.A. (BPI) is today one of the five largest banks in Portugal. Since the end of 2018, BPI has been a wholly owned subsidiary of the Spanish CaixaBank, S.A. Around 4,400 employees at BPI serve 1.9 million retail and corporate customers across a network of 325 branches and service centres. The bank boasts market shares of 11.5% for lending (February 2023) and 10.6% for customer deposits. In Portugal, BPI offers all the products and services of a commercial bank and supplements this portfolio via subsidiaries in Portugal and companies associated with the CaixaBank Group. BPI has a 35% stake (FY 2022) in Allianz Portugal and is a minority shareholder (48.1%) in the Angolan institute Banco de Fomento Angola (BFA) and Banco Comercial e de Investimentos (BCI, 35.7%) in Mozambique. The bank reports across the segments of Commercial Banking (FY 2022: 82% of operating earnings), Corporate Center (3%), BFA (10%) and BCI (4%). The Commercial Banking segment is divided into the subsegments of "Retail Banking, Businesses, Premier and InTouch", "Private Banking", "Corporate and Institutional Banking" and "Other". The funding mix at Group level primarily comprises customer deposits (Q1 2023: 76% of total assets). Within the framework of the sustainability plan 2022-2024, the bank has set itself the target of concluding sustainable business in the areas of customer loans and investments to the tune of EUR 2.0bn in each case. As at year-end 2022, progress in these areas amounted to EUR 608m (loans) and EUR 1.4bn (investments). Moreover, BPI signed up to the Principles for Sustainable Banking in March 2023.

Balance Sheet								
(EURm)	2021Y	2022Y	2023Q1					
Net Loans to Customers	24,290	25,467	25,480					
Total Securities	8,787	9,004	9,161					
Total Deposits	28,872	30,326	29,228					
Tier 1 Common Capital	2,600	2,553	2,588					

41,378

18,281

Income Statemen	t
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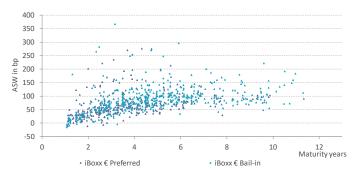
moonic otatement			
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	460	559	208
Net Fee & Commission Inc.	288	296	73
Net Trading Income	27	38	5
Operating Expense	432	461	126
Credit Commit. Impairment	43	60	22
Pre-tax Profit	378	461	126

Total Risk-weighted Assets Redemption Profile

Total Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.20	1.36	2.20	Liquidity Coverage Ratio	272.09	237.49	210.71
ROAE	8.65	9.44	8.92	IFRS Tier 1 Leverage Ratio	6.32	-	-
Cost-to-Income	48.63	45.97	45.94	NPL/Loans at Amortised Cost	2.61	2.24	2.27
Core Tier 1 Ratio	14.22	14.78	14.30	Reserves/Loans at Amort. Cost	2.06	2.00	2.13

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 31.07.2023

38.905

17,280

39,219

18,100

Strengths / Opportunities

- Probability of support from CaixaBank
- Loan quality in a national comparison
- Capitalisation

- Economic environment
- Exposure risks in Angola
- Profitability



Banco BPI - Mortgage

Portugal

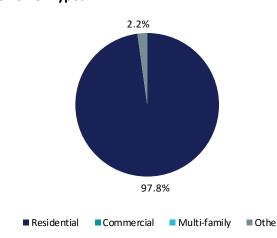


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

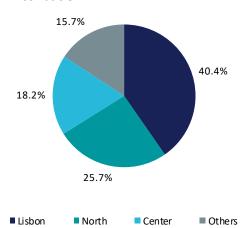
Cover Pool Data

Cover pool volume (EURm)	8,734	Rating (Moody's)	Aa2
Amount outstanding (EURm)	7,000	Rating (S&P)	-
-thereof ≥ EUR 500m	17.9%	Rating (Fitch)	-
Current OC (nominal)	24.8%	Rating (DBRS)	AA
Committed OC	16.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Portugal	Collateral score	5.0%
Main region	40% Lisbon	RRL	-
Number of loans	165,027	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	13.8y	PCU	-
WAL (covered bonds)	2.9y	Recovery uplift	-
Fixed interest (cover pool)	10.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	7.1%	LCR eligible	Yes
LTV (indexed)	36.0%	LCR level (Bmk)	1
LTV (unindexed)	53.4%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



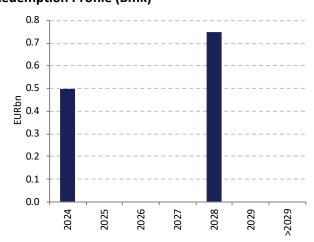
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco Santander Totta

Portugal



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco Santander Totta SA

	Rating	Outlook
Fitch	A-	Stable
Moody's*	A3	Positive
S&P	BBB+	Stable

Homepage

www.santandertotta.pt

* LT Bank Deposits

Banco Santander Totta S.A. (BST) headquartered in Lisbon is one of the three largest banking groups in Portugal as measured by group assets (FY 2022: EUR 55.8bn). BST is the main operating unit of the holding company Santander Totta, SGPS, S.A. (STGPS) and a subsidiary of the Spanish institute Banco Santander S.A. In Portugal, BST employs around 4,650 staff and has 381 branches throughout the country (FY 2022). BST offers its customers financial services in the areas of retail and corporate banking, asset management and insurance. The group reports across the following segments: Corporate Investment Banking (FY 2022: 8% of operating profit), Retail Banking (73%), Corporate Banking (8%), Insurance Management (2%) and Corporate Activities (9%). Broken down by customer group, the loan portfolio of the bank is primarily made up of retail customers (FY 2022: 58%) and corporate customers (36%). At 53%, mortgage financing represents the largest component within the loan portfolio. The market shares for loans and deposits come in at 18% and 13% respectively (Q2 2022), while the bank claims a share of 23% for mortgage lending (FY 2022). The refinancing structure primarily comprises customer deposits (79%), followed by equity and subordinated debt securities (8%), repo transactions (4%) and covered bonds (4%). As part of the Green, Social & Sustainability Funding Global Framework of the Santander Group, sustainable loans are granted and customers are supported in the issuance of green bonds. BST finances projects in the fields of wind energy and green mobility, among other initiatives.

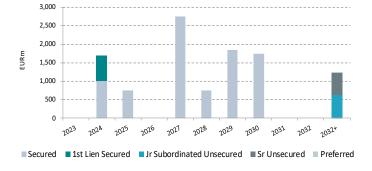
Balance Sheet

(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	38,975	39,864	39,625
Total Securities	9,602	6,514	6,757
Total Deposits	36,270	38,959	39,062
Tier 1 Common Capital	3,759	3,918	2,604
Total Assets	54,403	56,167	55,778
Total Risk-weighted Assets	17,982	14,428	15,877

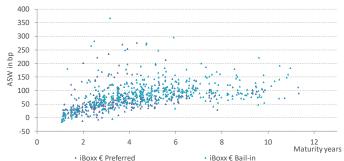
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	785	729	779
Net Fee & Commission Inc.	378	432	476
Net Trading Income	96	141	33
Operating Expense	673	803	517
Credit Commit. Impairment	188	73	-12
Pre-tax Profit	368	403	854

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.51	1.35	1.42	Liquidity Coverage Ratio	122.00	131.60	126.40
ROAE	6.65	6.47	14.93	IFRS Tier 1 Leverage Ratio	7.11	7.09	-
Cost-to-Income	54.04	61.94	38.39	NPL/Loans at Amortised Cost	3.88	3.41	2.91
Core Tier 1 Ratio	20.90	27.16	16.40	Reserves/Loans at Amort. Cost	2.70	2.67	2.46

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Profitability
- Funding profile

- Geographical concentration
- Economic environment
- Asset quality



Banco Santander Totta – Mortgage

Portugal

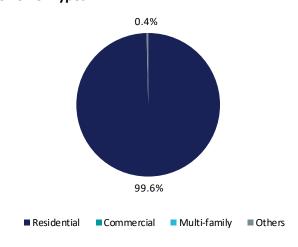


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

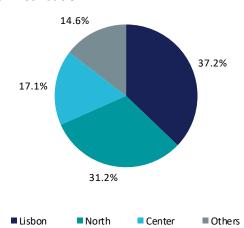
Cover Pool Data

Cover pool volume (EURm)	10,262	Rating (Moody's)	Aa2
Amount outstanding (EURm)	8,600	Rating (S&P)	-
-thereof ≥ EUR 500m	32.0%	Rating (Fitch)	AA-
Current OC (nominal)	19.3%	Rating (DBRS)	AA
Committed OC	15.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Portugal	Collateral score	5.0%
Main region	37% Lisbon	RRL	-
Number of loans	163,800	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	26.9y	PCU	0
WAL (covered bonds)	3.7y	Recovery uplift	2
Fixed interest (cover pool)	1.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	54.7%	LCR level (Bmk)	1
LTV (unindexed)	53.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

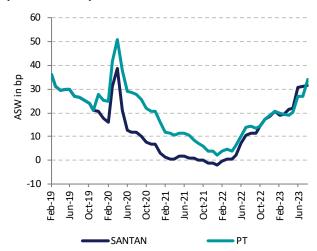
Borrower Types



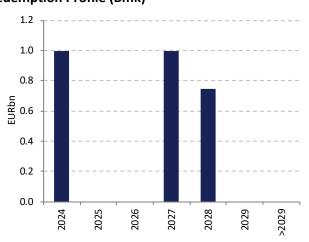
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Caixa Economica Montepio Geral

Portugal



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Caixa Economica Montepio Geral

	Rating	Outlook
Fitch	B+	Positive
Moody's*	Ba2	Positive
S&P	-	-

Homepage

www.bancomontepio.pt

* LT Bank Deposits

Caixa Economica Montepio Geral, caixa economica bancaria, S.A. (CEMG) is a savings bank headquartered in Lisbon that has operated under the Banco Montepio brand since 2019. The main shareholder (99.99%) in CEMG is Montepio Geral Associacao Mutualista (MGAM). The bank owns Montepio Holding SGPS, S.A. in addition to its subsidiaries, which together with other equity participations, form the Banco Montepio Group. Around 3,400 employees serve 1.3 million customers across 246 branches in Portugal, with the bank boasting market shares of 5% in each case for deposits and loans. As a universal bank, CEMG offers its customers deposits and credit products, services for businesses in addition to investment and insurance products. In terms of the business focus, CEMG above all prioritises retail customers and SMEs. The group reports in the Commercial Banking segment (FY 2022: 79% of operating earnings), which can be broken down into Retail Banking, Social Economy and Specialized Credit. Other reporting segments at CEMG include Investment Banking (16%), Markets (2%) Non-Core Segments (9%) and Other Segments (-6%). The bank's refinancing activities are above all concentrated on customer deposits (69% of total assets) and central bank funding (15%). In total, 52% of the loan portfolio comprises mortgage loans (FY 2022). As part of the strategic realignment and the associated goal of focusing more strongly on the domestic market, CEMG decided to wind up Banco Montepio Geral Cabo Verde, a process which was finalised in September 2022. In October 2022, CEMG also announced the sale of its stake in Finibanco Angola, S.A. to Access Bank Plc.

Balance Sheet

(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	11,677	11,722	11,645
Total Securities	3,334	4,378	4,429
Total Deposits	12,787	13,115	12,678
Tier 1 Common Capital	1,122	1,135	1,120
Total Assets	19,713	19,106	18,181
Total Risk-weighted Assets	8,800	8,276	8,234

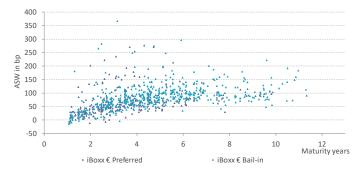
Income Statement (EUR BMK)

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	233	251	90
Net Fee & Commission Inc.	115	120	33
Net Trading Income	11	12	2
Operating Expense	236	240	64
Credit Commit. Impairment	51	13	-12
Pre-tax Profit	30	80	58

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.30	1.38	2.10	Liquidity Coverage Ratio	248.90	249.57	219.00
ROAE	0.57	2.10	9.22	IFRS Tier 1 Leverage Ratio	5.70	5.96	6.18
Cost-to-Income	64.13	64.71	52.36	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	12.74	13.72	13.60	Reserves/Loans at Amort. Cost	4.28	2.94	2.72

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income & Macro Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Focus on core activities (restructuring)
- Funding profile

- Asset quality
- Profitability
- Risk absorption capacity



Caixa Economica Montepio Geral- Mortgage

Portugal

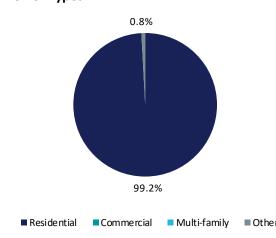


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

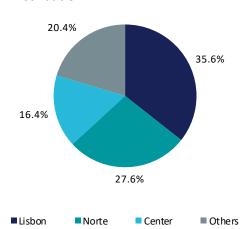
Cov	/er	Poo	Data

Cover pool volume (EURm)	2,768	Rating (Moody's)	Aa2
Amount outstanding (EURm)	2,300	Rating (S&P)	-
-thereof ≥ EUR 500m	21.7%	Rating (Fitch)	AA
Current OC (nominal)	20.3%	Rating (DBRS)	-
Committed OC	18.00%	TPI	Very High
Cover type	Mortgage	TPI leeway	0
Main country	100% Portugal	Collateral score	7.5%
Main region	36% Lisbon	RRL	-
Number of loans	54,632	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	13.6y	PCU	8
WAL (covered bonds)	2.6y	Recovery uplift	2
Fixed interest (cover pool)	7.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	21.7%	LCR eligible	Yes
LTV (indexed)	36.0%	LCR level (Bmk)	1
LTV (unindexed)	51.2%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	CPT

Borrower Types



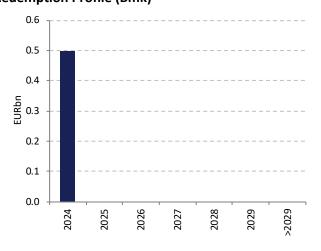
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

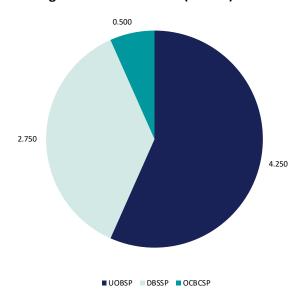
Singapore



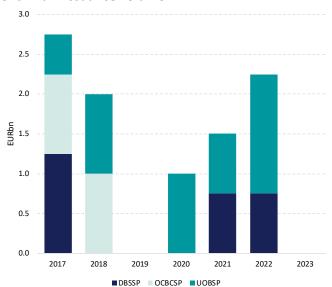
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 33.93bn	Outstanding volume (Bmk)	EUR 7.50bn
Amount outstanding	EUR 12.71bn	Number of benchmarks	10
Number of issuer	3	Outstanding ESG volume (Bmk)	-
No of cover pools	3	Number of ESG benchmarks	-
there of M / PS / others	3/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 2A	Maturity types	SB

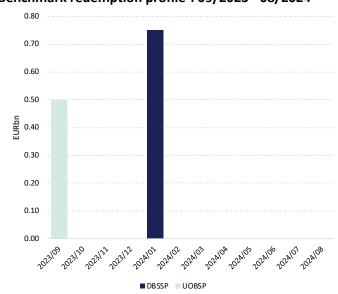
Outstanding benchmark volume¹ (EURbn)



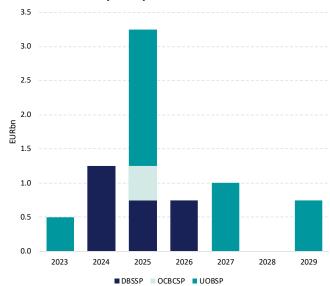
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



DBS Group Holdings

Singapore



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

DBS Group Holdings Ltd

	Rating	Outlook
Fitch	AA-	Stable
Moody's	Aa2	Stable
S&P	-	-

Homepage

www.dbs.com

DBS Group Holdings (DBS) is the largest of the three dominant financial groups in Singapore as measured by total assets. The Monetary Authority of Singapore (MAS) classifies DBS as a domestic systemically important bank (D-SIB). DBS is listed on the Singapore stock exchange, where its main shareholder is Temasek Holdings Ltd. at 29.5% (25 April 2023; holding of the Singapore government). DBS Bank Ltd. is a wholly owned subsidiary of DBS and the Group's main operating unit. DBS has more than 36,000 employees, who serve 280,000 institutional customers as well as 12 million retail/asset management customers worldwide. The Group reports across the three core business segments of Institutional Banking, Consumer Banking/Wealth Management and Treasury Markets, as well as the segment Other. In addition to its domestic market Singapore (FY 2022: 47% of outstanding loans), DBS also has a strong presence in the regions Hong Kong (17%), Greater China (excluding Hong Kong; 13%) as well as South and South-East Asia (7%). While DBS mainly issues capital instruments, covered bonds are placed via DBS Bank Ltd. The lion's share of the funding mix consists of deposits (FY 2021: 92%). At the end of FY 2022, covered bonds constituted 16% of wholesale funding. DBS became the first bank from Singapore to join the Net-Zero Banking Alliance in 2021, which is pursuing the goal of becoming carbon neutral by 2050. The acquisition of the consumer business of Citigroup Taiwan was announced on 28 January 2022 (Q3 2021: SGD 15.1bn in deposits, SGD 11.3bn in loans). Subject to regulatory conditions, the takeover is set to be concluded in Q3 2023.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	266,750	289,266	288,614
Total Securities	93,028	129,370	-
Total Deposits	327,384	367,759	366,307
Tier 1 Common Capital	32,120	35,232	35,132
Total Assets	447,465	518,749	515,637

223,507

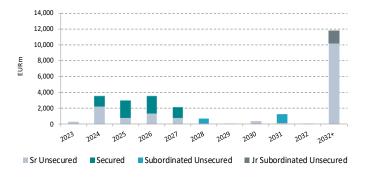
242,076

244,523

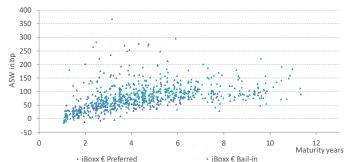
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	5,313	7,546	2,287
Net Fee & Commission Inc.	2,218	2,132	595
Net Trading Income	-	-	-
Operating Expense	4,077	4,888	1,316
Credit Commit. Impairment	15	155	-
Pre-tax Profit	4,897	6,470	2,067

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.45	1.75	-	Liquidity Coverage Ratio	134.73	146.04	146.74
ROAE	11.97	14.51	17.91	IFRS Tier 1 Leverage Ratio	7.46	7.29	-
Cost-to-Income	45.30	42.42	37.65	NPL/Loans at Amortised Cost	1.30	1.15	-
Core Tier 1 Ratio	14.37	14.55	14.37	Reserves/Loans at Amort. Cost	1.47	1.37	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Liquidity
- Profitability
- Capitalisation

- Increasing asset risk through rising interest rates
- Further takeovers will put pressure on capital
- Volatility of the economic landscape



DBS Bank - Mortgage

Singapore

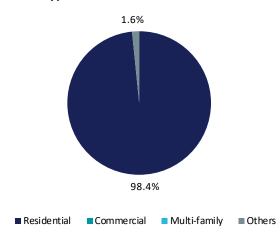


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

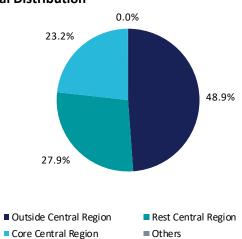
Cover Pool Data

Cover pool volume (EURm)	18,735	Rating (Moody's)	Aaa
Amount outstanding (EURm)	6,520	Rating (S&P)	-
-thereof ≥ EUR 500m	42.2%	Rating (Fitch)	AAA
Current OC (nominal)	187.3%	Rating (DBRS)	-
Committed OC	5.3%	TPI	Probable
Cover type	Mortgage	TPI leeway	5
Main country	100% Singapore	Collateral score	5.0%
Main region	49% Outside Central Region	RRL	-
Number of loans	36,226	JRL	-
Number of borrowers	23,199	Unused notches	-
Avg. exposure to borrowers (El	JR) 794,644	AAA credit risk (%)	-
WAL (cover pool)	20.0y	PCU	6
WAL (covered bonds)	2.6y	Recovery uplift	1
Fixed interest (cover pool)	54.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	68.4%	LCR eligible	Yes
LTV (indexed)	45.1%	LCR level (Bmk)	2A
LTV (unindexed)	54.3%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



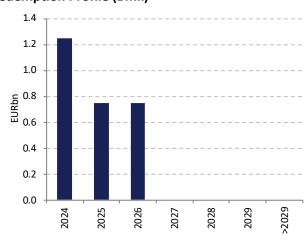
Regional Distribution



Spread Development



Redemption Profile (Bmk)





OCBC

Singapore



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Oversea-Chinese Banking Corp Ltd

	Rating	Outlool
Fitch	AA-	Stable
Moody's*	Aa1	Stable
S&P	AA-	Stable

Homepage

www.ocbc.com

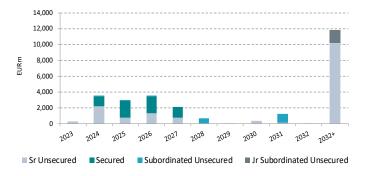
* Senior Unsecured/LT Bank Deposits Oversea-Chinese Banking Corporation Ltd. (OCBC) was founded in 1932 via the merger of three regional banks and is the oldest credit institute in Singapore. Its shares are listed on the Singapore stock exchange. The main shareholders are Selat PTE Ltd. with 14.5%, followed by Lee Foundation Singapore with 4.2% (FY 2022). OCBC is the second-largest banking group in Singapore as measured by total assets (FY 2022) and is classified as a domestic systemically important bank (D-SIB). Its core markets include Singapore (FY 2022: 40.7% of the loan portfolio), Malaysia (8.5%), Indonesia (6.4%) and Greater China (24.4%). In terms of the breakdown of the outstanding loans, 53% (FY 2022) is focused on large corporations, while loans to SMEs and private individuals amount to 10% and 37% respectively. Overall, the Group operates more than 420 branches and representative offices in 19 countries and regions. A total of 190 of these are located in Indonesia and operated via the subsidiary OCBC NISP. The Group reports in the segments Global Wholesale Banking (FY 2022: 43.3% of pre-tax earnings), Global Consumer/Private Banking (22.2%), Global Treasury and Markets (9.4%), Insurance (12.6%) and the non-operating segment Others (12.5%). Customer deposits (81%) account for the majority of OCBC funding, with a 12% share for capital and reserves. OCBC published its sustainability bond framework in March 2020, enabling it to issue green, social and sustainable bonds. Up to 31 December 2022, green bonds amounting to AUD 1bn had been issued. Sustainable funding amounted to SGD 30bn or 10% of the outstanding loans of the Group (FY 2022).

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	186,716	203,396	201,052
Total Securities	52,538	57,908	-
Total Deposits	223,314	244,299	253,919
Tier 1 Common Capital	22,726	24,549	25,559
Total Assets	353,621	390,757	391,630
Total Risk-weighted Assets	146,660	161,652	160,504

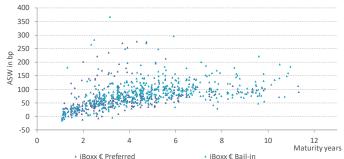
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	3,685	5,302	1,635
Net Fee & Commission Inc.	1,413	1,277	317
Net Trading Income	538	433	-
Operating Expense	3,002	3,456	887
Credit Commit. Impairment	546	348	77
Pre-tax Profit	3,575	4,786	1,560

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.54	1.91	-	Liquidity Coverage Ratio	158.76	158.81	152.06
ROAE	9.54	10.79	-	IFRS Tier 1 Leverage Ratio	6.60	6.52	-
Cost-to-Income	42.12	39.98	35.15	NPL/Loans at Amortised Cost	1.47	1.16	1.11
Core Tier 1 Ratio	15.50	15.19	15.92	Reserves/Loans at Amort. Cost	1.19	1.19	1.20

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Deposit basis
- Franchise in SG, MY, ID and CN
- Capitalisation

- Challenging economic development in China
- Credit demand curbed by interest rate hike
- Asset quality could deteriorate (rising interest rates, inflation)



OCBC - Mortgage

Singapore



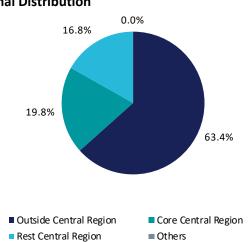
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

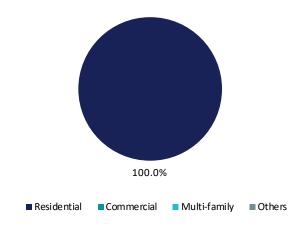
Cover Pool Data

Cover pool volume (EURm)	5,603	Rating (Moody's)	Aaa
Amount outstanding (EURm)	622	Rating (S&P)	-
-thereof ≥ EUR 500m	80.3%	Rating (Fitch)	AAA
Current OC (nominal)	800.3%	Rating (DBRS)	-
Committed OC	15.6%	TPI	Probable
Cover type	Mortgage	TPI leeway	5
Main country	100% Singapore	Collateral score	5.0%
Main region	63% Outside Central Region	RRL	-
Number of loans	13,294	JRL	-
Number of borrowers	13,462	Unused notches	-
Avg. exposure to borrowers (El	JR) 416,181	AAA credit risk (%)	-
WAL (cover pool)	18.6y	PCU	6
WAL (covered bonds)	1.9y	Recovery uplift	1
Fixed interest (cover pool)	36.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	39.3%	LCR level (Bmk)	2A
LTV (unindexed)	52.0%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

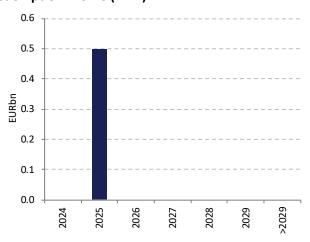




Spread Development

ASW in bp ASW in bp

Redemption Profile (Bmk)





United Overseas Bank

Singapore



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

United Overseas Bank Ltd

	Rating	Outlook
Fitch	AA-	Stable
Moody's	Aa1	Stable
S&P	AA-	Stable

Homepage

www.uobgroup.com

* Senior Unsecured/LT Bank Deposits

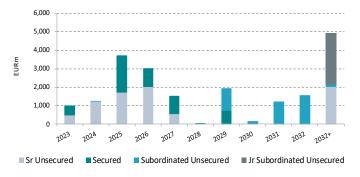
United Overseas Bank Ltd. (UOB), headquartered in Singapore, was founded in 1935 and is classified as a domestic systemically important bank (D-SIB). Today, it is one of the three largest banks in Singapore and maintains a global presence with a focus on Asia. UOB is listed on the Singapore stock exchange and reports across the following segments: Group Retail, Group Wholesale Banking, Global Markets and the non-operating segment Other. The UOB Group has an extensive network of over 500 branches spread across 19 countries around the world, with a focus on the Asia-Pacific region. Regarding the loan portfolio, the largest share is attributable to the domestic market Singapore (50%; as at FY 2022), followed by the Greater China region (15%) and Malaysia (10%). On 14 January 2022, UOB announced that it had agreed a deal to acquire the Citigroup retail banking business in Indonesia, Malaysia, Thailand and Vietnam for a sum of SGD 4.9bn. In so doing, UOB has doubled the number of its retail customers in ASEAN countries. The acquisitions of the Citigroup Malaysia and Thailand have already been concluded, while those for Indonesia and Vietnam are set to be finalised over the course of 2023. The bank offers its customers a broad range of financial services. These include private banking, commercial and corporate banking, investment banking, capital market activities, treasury services, asset management, insurance and securities trading services. In 2021, UOB issued its first sustainability bond in two tranches with the aim of financing sustainability projects. In addition, as at April 2023, UOB had placed the largest covered bond from Singapore to date, when it raised a total volume in excess of EUR 1.5bn as part of a deal in 2022.

Balance Sheet (EURm) 2021Y 2022Y 2023H1 Net Loans to Customers 200,042 220,066 212,968 40,791 59,643 61,537 **Total Securities** 229,992 257,189 255,009 **Total Deposits** 24,009 24,259 Tier 1 Common Capital 22,785 342,187 **Total Assets** 299,576 351,891 178,280 Total Risk-weighted Assets 168,967 180,808

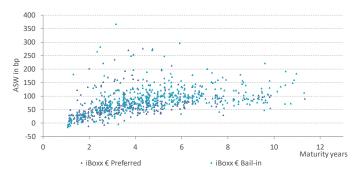
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	4,021	5,754	3,356
Net Fee & Commission Inc.	1,484	1,478	744
Net Trading Income	494	572	660
Operating Expense	2,715	3,644	2,145
Credit Commit. Impairment	376	433	377
Pre-tax Profit	3,108	3,990	2,413

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.56	1.86	2.11	Liquidity Coverage Ratio	132.91	146.31	166.68
ROAE	9.73	10.60	13.10	IFRS Tier 1 Leverage Ratio	7.76	7.12	7.39
Cost-to-Income	43.53	45.27	43.52	NPL/Loans at Amortised Cost	1.66	1.62	1.63
Core Tier 1 Ratio	13.48	13.28	13.61	Reserves/Loans at Amort. Cost	1.33	1.36	1.37

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Funding
- Market position (SMEs, retail customers) in Singapore
- Capitalisation

- Exposure risks in emerging nations
- Asset risk (economic outlook, inflation)
- Uncertainty in the economic landscape



United Overseas Bank - Mortgage

Singapore

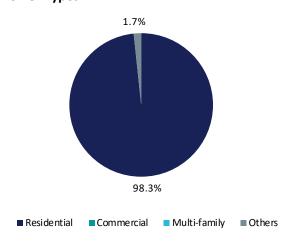


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

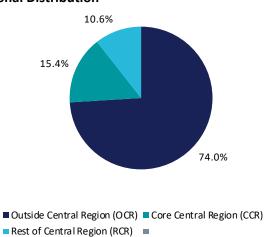
Cover Pool Data

Cover pool volume (EL	JRm) 9,588	Rating (Moody's)	Aaa
Amount outstanding (I	EURm) 5,567	Rating (S&P)	AAA
-thereof ≥ EUR 500m	67.4%	Rating (Fitch)	-
Current OC (nominal)	72.2%	Rating (DBRS)	-
Committed OC	15.9%	TPI	Probable
Cover type	Mortgage	TPI leeway	5
Main country	100% Singapore	Collateral score	5.0%
Main region	74% Outside Central Region (OCR)	RRL	aa-
Number of loans	21,838	JRL	aa+
Number of borrowers	21,879	Unused notches	1
Avg. exposure to borro	owers (EUR) 430,907	AAA credit risk (%)	-
WAL (cover pool)	20.4y	PCU	-
WAL (covered bonds)	1.1y	Recovery uplift	-
Fixed interest (cover p	ool) 53.8%	Outstanding ESG BMKs	No
Fixed interest (covered	d bonds) 80.7%	LCR eligible	Yes
LTV (indexed)	46.1%	LCR level (Bmk)	2A
LTV (unindexed)	54.4%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



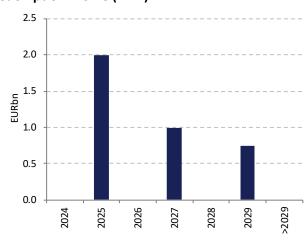
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

Slovakia



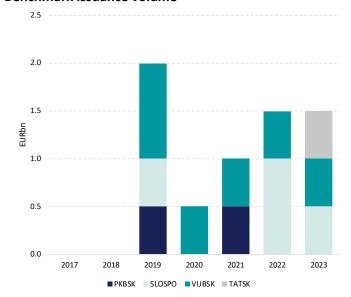
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 16.74bn	Outstanding volume (Bmk)	EUR 6.50bn
Amount outstanding	EUR 12.67bn	Number of benchmarks	13
Number of issuer	4	Outstanding ESG volume (Bmk)	EUR 0.50bn
No of cover pools	4	Number of ESG benchmarks	1
there of M / PS / others	4/0/0	Outstanding volume (SBmk)	EUR 0.50bn
Ratings (low / high)	AA+ / AAA	Number of subbenchmarks	2
Best possible LCR level	Level 1	Maturity types	SB

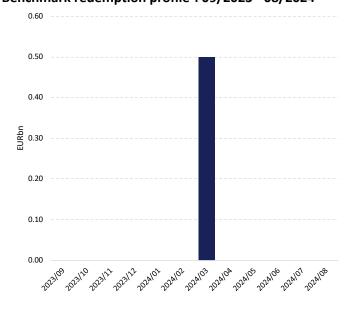
Outstanding benchmark volume¹ (EURbn)

2.000 PKBSK TATSK

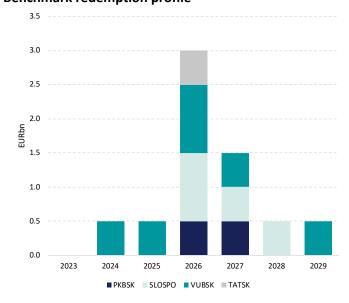
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Prima Banka

Slovakia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Prima Banka Slovensko AS

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.primabanka.sk

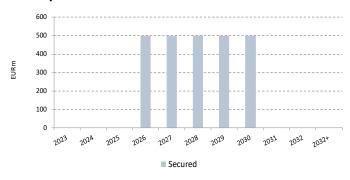
Prima banka Slovensko, a.s (Prima Banka), headquartered in Zilina, was founded by a total of 193 Slovakian cities and municipalities in 1992. Its remit at the time was to provide funding and services for Slovakian cities and municipalities. In 2011, Penta Investments (private equity investor) acquired a majority stake in the bank. Since then, its focus has increasingly been on the retail sector. As at year-end 2022, Penta Financial Services Ltd (private equity) held over 99% of shares. Today, Prima Banka mainly focuses on retail customers, freelancers, SMEs and municipalities. According to its own information, the bank continues to occupy a leading position in the provision of banking services for cities and municipalities. In FY 2022, growth of +23.2% was recorded in the loan portfolio in terms of book value. In this context, the mortgage portfolio of Prima Banka grew by +26% (20,000 new mortgage loans) to EUR 4.6bn in 2022. The market share in the area of housing loans as at FY 2022 amounts to more than 12%. With 120 branches and 308 ATMs, Prima Banka is represented in all 79 districts of Slovakia. According to information from the bank itself, this is the third-largest network of its kind in Slovakia. As at FY 2022, customer deposits accounted for the majority of the bank's refinancing activities. The share of covered bonds in the funding mix has increased to 16.7% of total assets (FY 2022) since placing an inaugural deal in 2019. All bonds issued by Prima Banka are covered bonds.

Balance Sheet							
(EURm)	2021Y	2022Y	2023Q1				
Net Loans to Customers	4,406	5,474	5,486				
Total Securities	170	161	150				
Total Deposits	3,890	3,883	3,929				
Tier 1 Common Capital	364	382	382				
Total Assets	5,331	5,988	5,999				
Total Risk-weighted Assets	2,271	2,604	2,610				

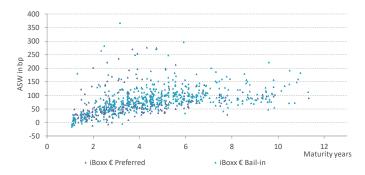
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	48	49	15
Net Fee & Commission Inc.	26	31	9
Net Trading Income	1	0	0
Operating Expense	53	55	15
Credit Commit. Impairment	7	5	0
Pre-tax Profit	18	20	8

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.98	0.87	0.98	Liquidity Coverage Ratio	305.27	-	-
ROAE	4.79	5.07	7.13	IFRS Tier 1 Leverage Ratio	6.83	6.38	6.37
Cost-to-Income	69.41	68.97	64.59	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	16.04	14.67	14.64	Reserves/Loans at Amort. Cost	3.16	2.38	2.38

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Customer deposit basis
- NPL ratio

- Credit growth
- Diversification



Prima Banka – Mortgage

Slovakia



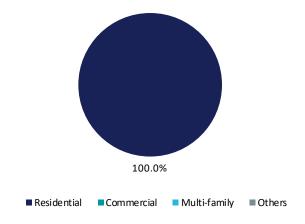
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

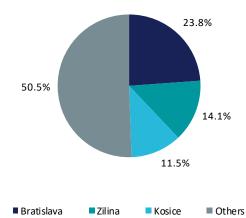
Cover Pool Data

Cover pool volume (EURm)	3,760	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,500	Rating (S&P)	-
-thereof ≥ EUR 500m	40.0%	Rating (Fitch)	-
Current OC (nominal)	50.4%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	Unpublished
Main country	100% Slovakia	Collateral score	8.7%
Main region	24% Bratislava	RRL	-
Number of loans	74,297	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	11.7y	PCU	-
WAL (covered bonds)	5.2y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	40.0%	LCR eligible	Yes
LTV (indexed)	54.0%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

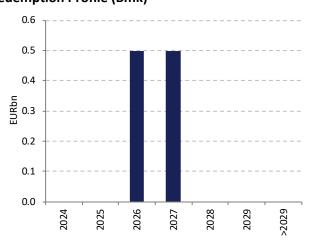




Spread Development

Asw in bp Asw in bp Oct-19 Oct-19 Lun-19 Lun-21 Lun-21 Oct-21 Oct-22 Jun-22 Jun-23 Lun-23 Lun-23 Lun-23

Redemption Profile (Bmk)





Slovenska Sporitelna

Slovakia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Slovenska Sporitelna AS

Rating	Outlook
-	-
A2	Stable
-	-
	-

Homepage

www.slsp.sk

In 1825, Slovenska sporitelna (SLSP) was established as the first savings bank in Slovakia. SLSP, headquartered in Bratislava, is a wholly owned subsidiary of the Austrian Erste Group and is classified as a domestic systemically important bank (D-SIB; additional capital buffer: 2%). The Erste Group is one of the leading financial service providers in Austria and the Central and Eastern Europe (CEE) region. As measured by its balance sheet total (FY 2022: EUR 23.7bn), SLSP is the largest commercial bank in Slovakia, with around 3,600 employees serving approximately 2.0 million customers across 190 branches throughout the country. In addition to its original banking services, SLSP also offers products from the asset management segment to its retail and corporate customers, SMEs and public institutions. The bank has market shares of 23.0% and 22.9% (as at FY 2022) respectively in the deposit and lending businesses, giving SLSP a market leading position in Slovakia for both of these business areas. SLSP reports across the following segments: Retail (FY 2022: 50% of pre-tax income), Corporates (26%), Group Markets (7%) as well as Asset Liability Management, Local Corporate Center and Free Capital (17%). In 2022, customer deposits rose by 6% to EUR 16.9bn, equating to 71% of total assets. In June 2021, the bank issued its first green bond (EUR 100m) as part of its sustainability activities. The bond was placed in compliance with the Sustainable Finance Framework of the Erste Group. Moreover, two covered bonds were placed on the market in EUR benchmark format in 2022, including an inaugural green covered bond from Slovakia.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	15,768	17,774	17,939
Total Securities	3,991	4,266	4,055
Total Deposits	15,973	16,913	17,159
Tier 1 Common Capital	1,400	1,492	1,618
Total Assets	23.154	23.746	24.589

8,971

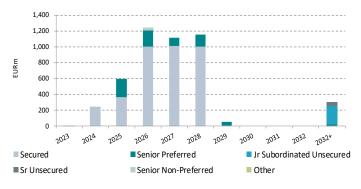
10,025

10,479

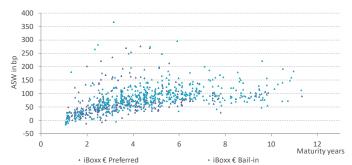
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	428	444	125
Net Fee & Commission Inc.	174	192	50
Net Trading Income	6	25	5
Operating Expense	292	307	82
Credit Commit. Impairment	1	32	2
Pre-tax Profit	302	312	88

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.93	1.90	2.11	Liquidity Coverage Ratio	189.60	161.70	174.80
ROAE	12.23	11.77	12.60	IFRS Tier 1 Leverage Ratio	6.07	6.33	-
Cost-to-Income	49.10	47.12	47.61	NPL/Loans at Amortised Cost	1.84	1.60	-
Core Tier 1 Ratio	15.61	14.88	15.44	Reserves/Loans at Amort. Cost	2.08	1.91	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Franchise position
- Liquidity

- Credit growth (mortgages)
- Income situation as a result of fierce competition



Slovenska Sporitelna – Mortgage

Slovakia 🖳

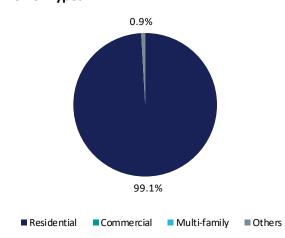


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

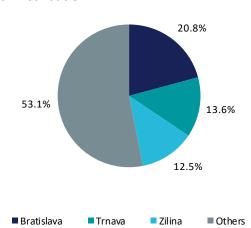
Cover Pool Data

Cover pool volume (EURm)	5,530	Rating (Moody's)	Aaa
Amount outstanding (EURm)	3,651	Rating (S&P)	-
-thereof ≥ EUR 500m	54.8%	Rating (Fitch)	-
Current OC (nominal)	51.5%	Rating (DBRS)	-
Committed OC	750.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% Slovakia	Collateral score	6.5%
Main region	21% Bratislava	RRL	-
Number of loans	115,760	JRL	-
Number of borrowers	105,513	Unused notches	-
Avg. exposure to borrowers (EUR)	51,942	AAA credit risk (%)	-
WAL (cover pool)	21.3y	PCU	-
WAL (covered bonds)	3.8y	Recovery uplift	-
Fixed interest (cover pool)	89.4%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	46.3%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



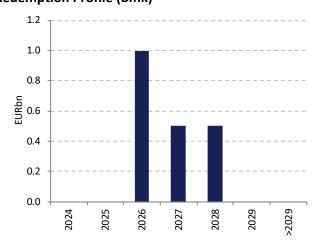
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Tatra Banka

Slovakia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Tatra Banka as

	Rating	Outlook
Fitch	-	-
Moody's	А3	Negative
S&P	-	-

Homepage

www.tatrabanka.sk

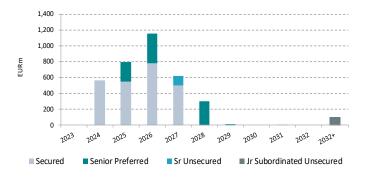
Tatra banka (Tatra), which is headquartered in Bratislava, was founded in 1990 and is the third-largest bank in Slovakia as measured by total assets (FY 2022: EUR 21.6bn). Tatra shares are listed on the Bratislava stock exchange, with Raiffeisen CEE Region Holding GmbH, Vienna (Raiffeisen Bank International) the majority shareholder with a stake of 78.8% (FY 2022). A series of subsidiaries are owned by the Tatra banka Group. These include, for example, Tatra Leasing and Tatra Asset Management. The Tatra banka Group employs more than 3,450 staff and operates 142 branches (FY 2022). Traditionally, its franchise in the corporate segment and for high net worth retail customers has been strong. In terms of reporting, Tatra splits its business activities into five operating segments: Corporate Customers (34% of pre-tax profit as at FY 2022), Financial Institutions and Public Sector (5%), Retail Customers (67%), Investment Banking and Treasury (-6%) and Equity Investments and Others (0%). Retail and corporate customers account for the lion's share of the loan portfolio at 49% and 35% respectively. A total of 47% of the funding mix at Tatra consists of retail customer deposits (FY 2022), while 27% is attributable to corporate deposits and 16% to deposits from banks and public institutions, with bond issuances accounting for a share of 6%. The remaining 4% can be categorised as "other". Covered bonds account for 37% of all bonds issued, with senior unsecured bonds making up the remaining 63%. Tatra is also active in the area of green bonds. For example, two green bonds with an overall volume of EUR 500m were placed on the market in October 2022 and February 2023. On 18 July 2022, Tatra sold its equity participation in Tatra Residence.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	11,328	12,486	13,756
Total Securities	2,217	2,431	2,861
Total Deposits	12,270	13,474	15,448
Tier 1 Common Capital	941	1,103	1,175
Total Assets	15,641	19,512	21,725
Total Risk-weighted Assets	6,295	7,103	7,722

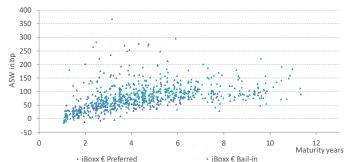
Income Statement

micomic otaliciment			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	292	300	322
Net Fee & Commission Inc.	133	155	158
Net Trading Income	29	27	40
Operating Expense	246	242	245
Credit Commit. Impairment	66	27	44
Pre-tax Profit	140	210	232

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.97	1.73	1.58	Liquidity Coverage Ratio	_	-	-
ROAE	8.17	11.67	12.80	IFRS Tier 1 Leverage Ratio	6.06	5.68	5.46
Cost-to-Income	53.96	50.41	46.65	NPL/Loans at Amortised Cost	2.06	1.92	1.68
Core Tier 1 Ratio	14.94	15.52	15.22	Reserves/Loans at Amort. Cost	1.94	1.88	1.75

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Funding profile

- Asset risk (commercial property exposure)
- Liquidity buffer



Tatra Banka – Mortgage

Slovakia

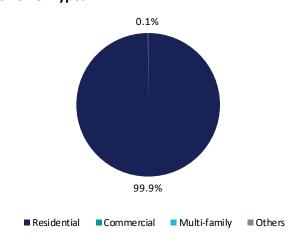


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

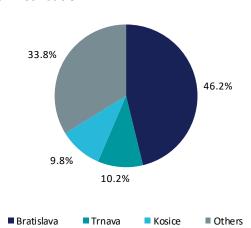
Cover Pool Data

Cover pool volume (EURm)	2,879	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,388	Rating (S&P)	-
-thereof ≥ EUR 500m	20.9%	Rating (Fitch)	-
Current OC (nominal)	20.5%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	2
Main country	100% Slovakia	Collateral score	9.0%
Main region	46% Bratislava	RRL	-
Number of loans	42,673	JRL	-
Number of borrowers	41,203	Unused notches	-
Avg. exposure to borrowers (EUR)	69,818	AAA credit risk (%)	-
WAL (cover pool)	20.2y	PCU	-
WAL (covered bonds)	2.3y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	53.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



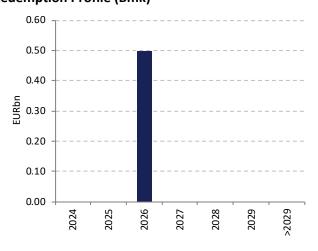
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Vseobecna Uverova Banka

Slovakia



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Vseobecna Uverova Banka AS

	Rating	Outlook
Fitch	-	-
Moody's*	A2	Negative
S&P	-	-

Homepage

www.vub.sk

*LT Bank Deposits

Vseobecna uverova banka (VUB) was founded in 1990 as a state-owned bank. In November 2001, the Italian banking group Intesa Sanpaolo acquired a stake in VUB and is today the sole owner of the bank today (as at December 2022). As measured by its balance sheet total (FY 2022: EUR 22.8bn), VUB is the second-largest credit institute in Slovakia. The bank has over 3,300 employees, who serve customers across 171 branches (FY 2022), offering them a wide range of banking services. VUB is classified as a domestic systemically important bank (D-SIB; additional capital buffer: 1.75%). In Slovakia, VUB has market shares of 22% for lending and 21% for deposits (data as at December 2022). VUB's business focus is on mortgages and consumer loans, deposits and payment transaction products (plus associated services), the corporate customer business, export financing, consumer financing and factoring. Via its subsidiaries, VUB offers leasing services (VUB Leasing) and pension plan products (VUB Generali). In addition, VUB is one of the biggest asset managers in Slovakia with a market share of 19% (FY 2022). The bank reports in the three operating business segments Retail Banking, Corporate Banking and Central Treasury, as well as the non-operating segment Other. As measured by pre-tax profit, the most profitable segments are Retail Banking and Corporate Banking. At 68%, the majority of the funding mix consists of deposits (as measured by liabilities; FY 2022), followed by covered bonds at 17%.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	15,240	16,660	17,498
Total Securities	1,809	1,768	1,718
Total Deposits	12,987	13,953	15,408
Tier 1 Common Capital	1,513	1,590	1,663
Total Assets	19.228	23.243	22.873

9,080

9,220

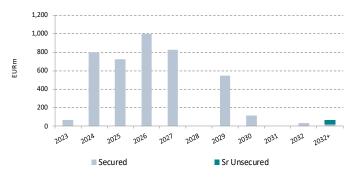
9,972

Income Statement

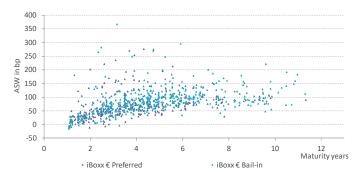
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	295	287	336
Net Fee & Commission Inc.	135	147	163
Net Trading Income	11	28	24
Operating Expense	231	231	237
Credit Commit. Impairment	64	80	67
Pre-tax Profit	109	144	213

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.63	1.38	1.48	Liquidity Coverage Ratio	131.62	134.77	135.77
ROAE	4.98	6.59	9.40	IFRS Tier 1 Leverage Ratio	8.00	6.91	7.46
Cost-to-Income	57.37	50.80	47.81	NPL/Loans at Amortised Cost	2.69	2.18	1.85
Core Tier 1 Ratio	16.66	17.24	16.68	Reserves/Loans at Amort. Cost	2.13	2.04	2.06

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position (mortgages and SMEs)
- Capitalisation
- · Funding and liquidity

- Asset risk (mortgages and sector concentrations)
- Profitability
- Competition on the domestic market



Vseobecna Uverova Banka – Mortgage

Slovakia



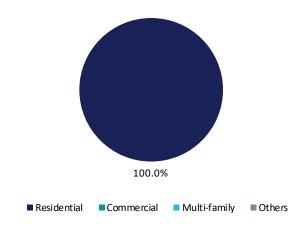
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

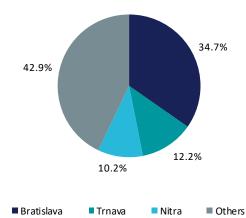
Cover Pool Data

Cover pool volume (EURm)	4,573	Rating (Moody's)	Aa1
Amount outstanding (EURm)	4,132	Rating (S&P)	-
-thereof ≥ EUR 500m	72.6%	Rating (Fitch)	-
Current OC (nominal)	10.7%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% Slovakia	Collateral score	6.8%
Main region	35% Bratislava	RRL	-
Number of loans	78,697	JRL	-
Number of borrowers	65,789	Unused notches	-
Avg. exposure to borrowers (EUR)	69,506	AAA credit risk (%)	-
WAL (cover pool)	22.4y	PCU	-
WAL (covered bonds)	3.1y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	59.8%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

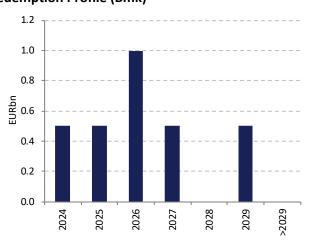




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





Market Overview Covered Bonds

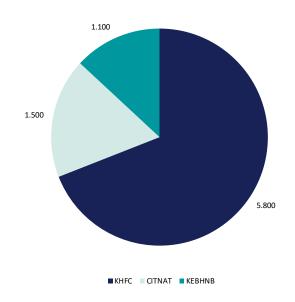
South Korea



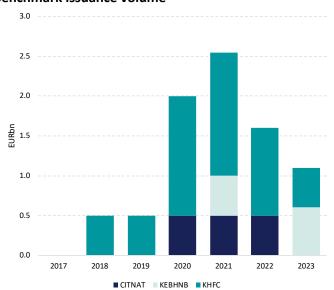
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 13.79bn	Outstanding volume (Bmk)	EUR 8.40bn
Amount outstanding	EUR 8.80bn	Number of benchmarks	14
Number of issuer	3	Outstanding ESG volume (Bmk)	EUR 8.40bn
No of cover pools	10	Number of ESG benchmarks	14
there of M / PS / others	10/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AA+ / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 2A	Maturity types	HB, SB

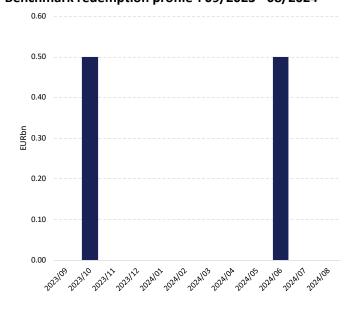
Outstanding benchmark volume¹ (EURbn)



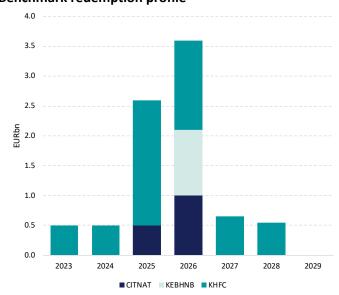
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



KB Financial Group

South Korea



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

KB Financial Group Inc

Rating	Outlook
-	-
A1	Stable
Α	Stable
	- A1

Homepage

www.kbfg.de

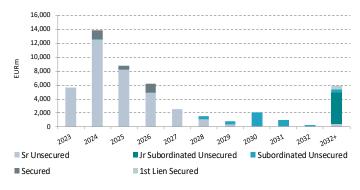
KB Kookmin Bank (KBK), headquartered in Seoul, is the largest bank in South Korea as measured by total assets (FY 2022). In 2008, the KB Financial Group Inc. (KBFG) was established as a holding for KBK and some of its subsidiaries. KBK is a wholly owned subsidiary of KBFG. The Group is listed on the South Korean and New York stock exchanges, with its largest shareholders being the Korean National Pension Service (10.3% as at 06 July 2023) and JPMorgan Chase Bank (6.6%). The group employs more than 24,000 staff (approximately 14,000 at KBK), who serve around 37.1 million customers. The bank has branches in roughly 800 locations. In total, with its 12 subsidiaries, the group offers the full spectrum of traditional banking services, in addition to insurance, real estate, investment and asset management businesses. The bank offers products in the following areas: retail and corporate banking, asset management, capital markets and fiduciary activities. In addition to its domestic market South Korea, the group is also active in Indonesia and Cambodia, among other countries, as well as at locations in New York, Singapore and London. In 2022, the bank's contribution to the net earnings of KBFG amounted to 64%. Its market share for loans and deposits stands at 11% on the domestic market (FY 2022). A total of 51% of the loan portfolio consisted of loans to households (of which 56% were mortgages), with the remaining share of 49% attributable to corporate loans, of which around 82% were issued to SMEs (FY 2022). By 2050, the bank plans to issue ESG financing (products, investments, loans) equivalent to EUR 350bn (KWK 50tn; progress towards target as at FY 2022: KWK 28.1tn/EUR 200bn).

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	308,919	322,970	302,501
Total Securities	128,291	144,252	138,956
Total Deposits	274,624	293,095	275,466
Tier 1 Common Capital	28,896	29,838	29,818
Total Assets	490,080	512,388	491,249
Total Risk-weighted Assets	214,749	225,429	216,447

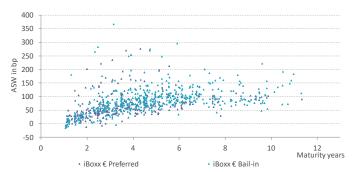
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	8,295	8,392	4,115
Net Fee & Commission Inc.	2,678	2,589	1,333
Net Trading Income	916	-	-
Operating Expense	7,386	4,894	2,257
Credit Commit. Impairment	875	1,361	943
Pre-tax Profit	4.492	3.983	2.851

Redemption Profile (Group)



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.77	1.63	1.65	Liquidity Coverage Ratio	90.45	99.81	-
ROAE	9.57	7.92	10.71	IFRS Tier 1 Leverage Ratio	6.04	-	-
Cost-to-Income	57.91	47.80	37.31	NPL/Loans at Amortised Cost	0.32	0.34	0.43
Core Tier 1 Ratio	13.46	13.24	13.78	Reserves/Loans at Amort. Cost	0.87	0.95	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position in South Korea
- Funding profile

- Liquidity situation in comparison with peers
- Profitability
- Debt level of South Korean households



Kookmin Bank – Mortgage

South Korea



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

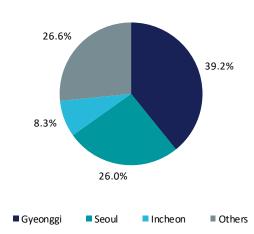
Cover Pool Data

Cover pool volume (EURm)	3,527	Rating (Moody's)	-
Amount outstanding (EURm)	1,425	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	147.5%	Rating (DBRS)	-
Committed OC	13.9%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	39% Gyeonggi	RRL	a+
Number of loans	35,603	JRL	a+
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	28.6y	PCU	6
WAL (covered bonds)	2.7y	Recovery uplift	1
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	40.6%	LCR level (Bmk)	2A
LTV (unindexed)	45.6%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

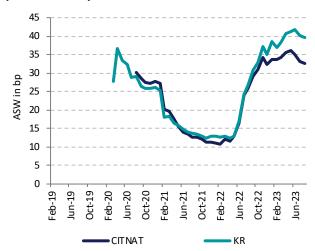
Borrower Types

100.0% ■ Residential ■ Commercial ■ Multi-family ■ Othe

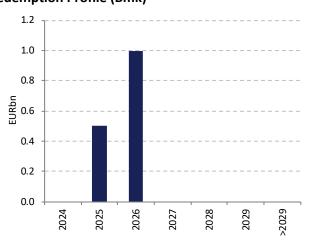
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Hana Financial Group/KEB Hana Bank

South Korea



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

KEB Hana Bank

	Rating	Outlook
Fitch	Α	Stable
Moody's*	Aa3	Positive
S&P	A+	Stable

Homepage

www.kebhana.com

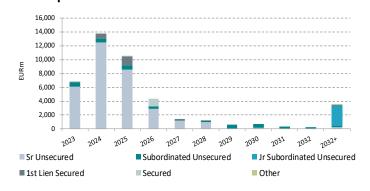
KEB Hana Bank (Hana Bank), headquartered in Seoul, is one of the four major South Korean commercial banks. It is a wholly owned subsidiary of the Korean Hana Financial Group (HFG) and was established in 2015 from the merger between Korea Exchange Bank (KEB) and Hana Bank. The group is listed on the South Korean stock exchange, where the largest shareholder is the National Pension Service at 8.1% (06 July 2023). HFG is the holding company and consists of 14 subsidiaries (plus additional subsidiaries of their own), which are active, among other aspects, in the areas of banking, asset management, investment banking, insurance and life insurance, and start-up financing. As at year-end 2022, the bank has a market share of 9% for loans and 10% for deposits in South Korea. The bank has just under 600 domestic branches in addition to 25 branches abroad. As the leading operating unit of HFG, Hana Bank accounts for roughly 85% of group assets. The group reports across the following business segments: Hana Bank, Hana Securities, KEB Hana Card and Others. The lending portfolio consists of loans to retail customers (FY 2022: 47%) and corporate loans (53%). Loans to SMEs account for the lion's share of corporate lending at around 83%, followed by loans to large businesses (14%). Customer deposits constitute almost 90% of the funding mix, followed by bonds and debt capital. The group has set itself the target of providing a total of EUR 42.0bn in financing and loans for sustainable projects by 2030 (progress towards this target as at FY 2022: 31%). Moreover, it is striving to operate on a climate-neutral basis by 2050.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	-	270,025	256,601
Total Securities	76,401	98,451	93,261
Total Deposits	192,742	-	-
Tier 1 Common Capital	22,147	23,506	23,426
Total Assets	370,722	423,058	412,842
Total Risk-weighted Assets	160,754	178,651	183,010

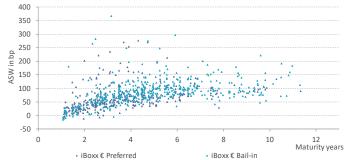
Income Statement

income statement			
(EURm)	2021Y	2022Y	2023H1
Net Interest Income	5,494	6,634	3,149
Net Fee & Commission Inc.	1,287	1,263	703
Net Trading Income	700	451	751
Operating Expense	5,133	4,662	2,468
Credit Commit. Impairment	388	-	-
Pre-tay Profit	3 623	3 641	1 996

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.65	1.76	1.63	Liquidity Coverage Ratio	-	-	-
ROAE	10.76	9.99	10.62	IFRS Tier 1 Leverage Ratio	6.16	5.84	-
Cost-to-Income	56.13	50.80	48.99	NPL/Loans at Amortised Cost	-	0.35	0.48
Core Tier 1 Ratio	13.78	13.16	12.80	Reserves/Loans at Amort. Cost	-	0.67	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Profitability
- Capitalisation

- Corporate/public sector share of deposits
- Liquidity position
- Potential reputational risks

^{*} Senior Unsecured/LT Bank Depositis



KEB Hana Bank – Mortgage

South Korea



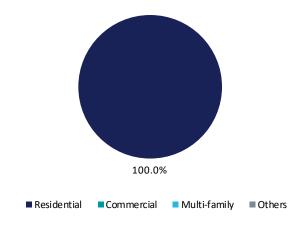
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

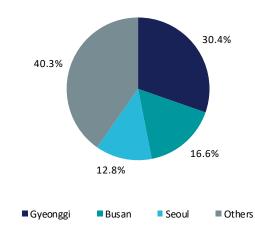
Cover Pool Data

Cover pool volume (EURm)	2,048	Rating (Moody's)	-
Amount outstanding (EURm)	1,080	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	AAA
Current OC (nominal)	89.6%	Rating (DBRS)	-
Committed OC	23.5%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	30% Gyeonggi	RRL	a+
Number of loans	18,570	JRL	a+
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	30.0y	PCU	6
WAL (covered bonds)	2.8y	Recovery uplift	1
Fixed interest (cover pool)	0.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	43.2%	LCR level (Bmk)	2A
LTV (unindexed)	53.0%	Risk weight	20%
Loans in arrears	0.1%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

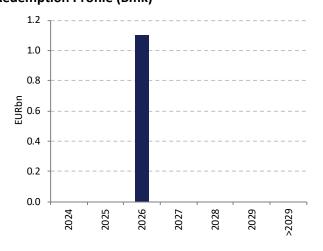




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





Korea Housing Finance Corporation

South Korea



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Korea Housing Finance Corp

	Rating	Outlook
Fitch	AA-	Stable
Moody's	Aa2	Stable
S&P	AA	Stable

Homepage

www.hf.go.kr

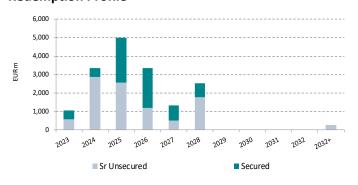
The Korea Housing Finance Corporation (KHFC), established in March 2004, is a state-owned business. Its mission is to support the South Korean economy through the provision of property financing. KHFC divides its business into four segments: Public Mortgages, Home Financing Guarantees, Property-Based Pensions and Mortgage-Backed Securities. KHFC sees itself as a partner for low to middle income families, and this commitment is particularly evident in the products on offer. KHFC issues "Bogeumjari Loans" and "Confirming Loans" as long-term mortgages with a term of at least 10 years and a fixed interest rate. This enables low to middle income households as well as vulnerable groups to obtain stable property financing without the risk of changing interest rates. The business is supplemented by granting guarantees to private individuals and home builders in order to make it easier for them to secure loans from other institutes. Moreover, with a focus on older demographics, KHFC gives homeowners over the age of at least 55 the opportunity to use their own property as collateral for a life-long pension via the "Joo Taek Yeon Keum" (JTYK) product. KHFC purchases mortgage loans from banks and issues mortgage-backed bonds and mortgage-backed securities on the capital market for refinancing purposes. Since 2018, KHFC has been issuing covered bonds and has established a social bond framework. In 2022, the Social Financing Framework devised in 2019 was further developed into the Sustainable Bond Framework.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	105,957	112,229	116,025
Total Securities	1,729	2,341	1,818
Total Deposits	-	-	-
Tier 1 Common Capital	-	-	-
Total Assets	115,381	119,318	120,194
Total Risk-weighted Assets	-	-	-

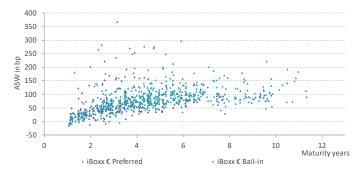
Income Statement

meonic statement			
(EURm)	2020Y	2021Y	2022Y
Net Interest Income	435	462	548
Net Fee & Commission Inc.	-77	-72	-79
Net Trading Income	-83	-153	-224
Operating Expense	126	144	166
Credit Commit. Impairment	-	-	-
Dra tay Drafit	100	12/	06

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.41	0.40	0.46	Liquidity Coverage Ratio	-	-	-
ROAE	5.65	3.44	2.11	IFRS Tier 1 Leverage Ratio	-	-	-
Cost-to-Income	39.61	50.60	53.98	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	-	-	-	Reserves/Loans at Amort. Cost	0.05	0.05	0.09

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Probability of state support (owners)
- Asset quality

- High leverage
- Concentration of the mortgage business



KHFC - Mortgage (2018 Issue)

South Korea 💽



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

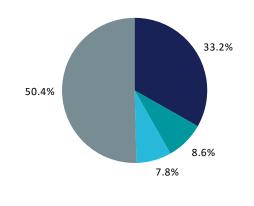
Cover pool volume (EURm)	492	Rating (Moody's)	Aa1
Amount outstanding (EURm)	452	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	8.9%	Rating (DBRS)	-
Committed OC	3.0%	TPI	Improbable
Cover type	Mortgage	TPI leeway	3
Main country	100% South Korea	Collateral score	8.0%
Main region	33% Gyeonggi	RRL	-
Number of loans	8,244	JRL	-
Number of borrowers	8,233	Unused notches	-
Avg. exposure to borrowers (EUR)	59,776	AAA credit risk (%)	-
WAL (cover pool)	20.5y	PCU	-
WAL (covered bonds)	n/a	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	33.2%	LCR level (Bmk)	2A
LTV (unindexed)	48.9%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types



100.0%

Regional Distribution

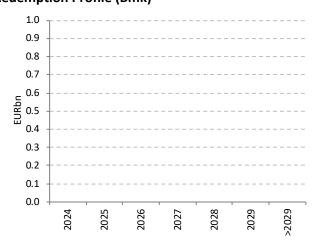




Spread Development



Redemption Profile (Bmk)





KHFC - Mortgage (2019 Issue)

South Korea



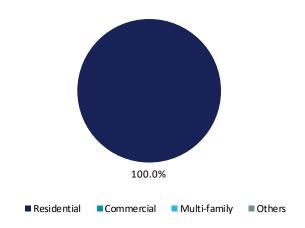
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

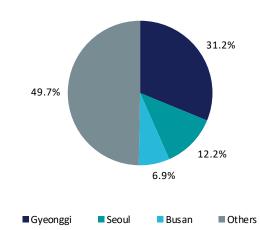
Cover Pool Data

Cover pool volume (EURm)	527	Rating (Moody's)	-
Amount outstanding (EURm)	465	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	13.2%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	31% Gyeonggi	RRL	aa
Number of loans	8,512	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	21.4y	PCU	-
WAL (covered bonds)	1.0y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	38.1%	LCR level (Bmk)	2A
LTV (unindexed)	50.5%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB

Borrower Types

Regional Distribution

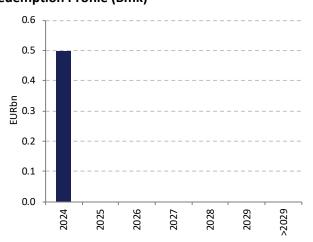




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





KHFC - Mortgage (2020/01 Issue)

South Korea



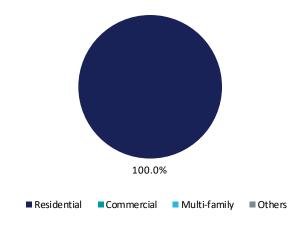
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

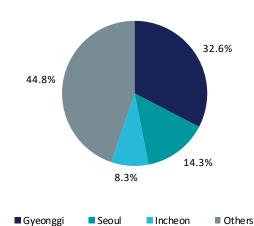
Cover Pool Data

Cover pool volume (EURm)	966	Rating (Moody's)	-
Amount outstanding (EURm)	903	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	6.9%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	33% Gyeonggi	RRL	aa
Number of loans	13,491	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	21.9y	PCU	-
WAL (covered bonds)	1.6y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	35.5%	LCR level (Bmk)	2A
LTV (unindexed)	48.4%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

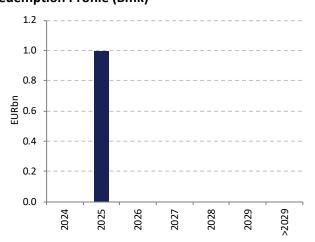




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





KHFC - Mortgage (2020/02 Issue)

South Korea



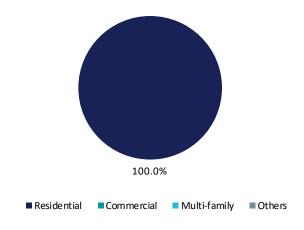
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

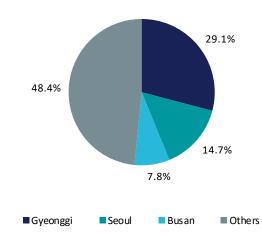
Cover Pool Data

Cover pool volume (EURm)	527	Rating (Moody's)	-
Amount outstanding (EURm)	470	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	12.2%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	29% Gyeonggi	RRL	aa
Number of loans	8,209	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	22.0y	PCU	-
WAL (covered bonds)	2.0y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	36.8%	LCR level (Bmk)	2A
LTV (unindexed)	49.4%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

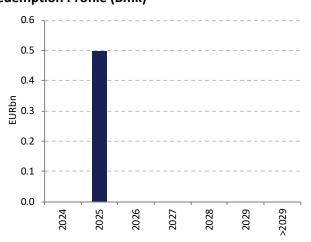




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





KHFC - Mortgage (2021/01 Issue)

South Korea



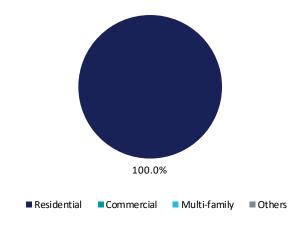
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

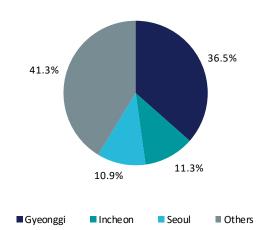
Cover Pool Data

Cover pool volume (EURm)	1,021	Rating (Moody's)	-
Amount outstanding (EURm)	945	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	8.0%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	37% Gyeonggi	RRL	aa
Number of loans	9,571	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	25.7y	PCU	-
WAL (covered bonds)	3.0y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	50.9%	LCR level (Bmk)	2A
LTV (unindexed)	55.7%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

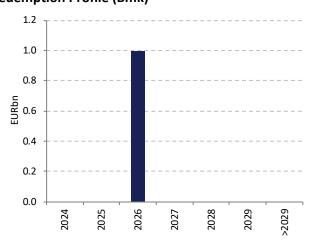




Spread Development

ASW in bp ASW in

Redemption Profile (Bmk)





KHFC - Mortgage (2021/02 Issue)

South Korea



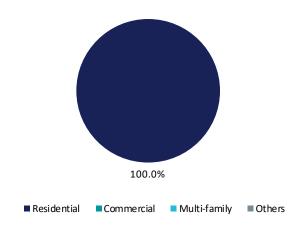
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

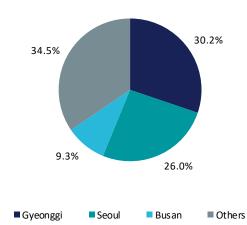
Cover Pool Data

Cover pool volume (EURm)	574	Rating (Moody's)	-
Amount outstanding (EURm)	524	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	9.7%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	30% Gyeonggi	RRL	aa
Number of loans	10,464	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	20.6y	PCU	-
WAL (covered bonds)	5.3y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	35.2%	LCR level (Bmk)	2A
LTV (unindexed)	47.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

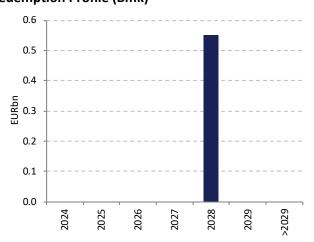




Spread Development

ASW in bp Asw in bp Oct-19 Cot-19 Lun-21 Jun-21 Jun-22 Oct-22 Oct-22 Oct-22 Cot-23 Lun-23 Lun-23 Lun-23

Redemption Profile (Bmk)





KHFC - Mortgage (2022/01 Issue)

South Korea



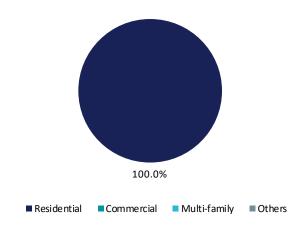
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

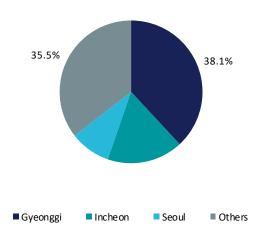
Cover Pool Data

Cover pool volume (EURm)	783	Rating (Moody's)	-
Amount outstanding (EURm)	567	Rating (S&P)	AAA
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	38.0%	Rating (DBRS)	-
Committed OC	6.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% South Korea	Collateral score	-
Main region	38% Gyeonggi	RRL	aa
Number of loans	6,912	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	27.1y	PCU	-
WAL (covered bonds)	1.7y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	57.9%	LCR level (Bmk)	2A
LTV (unindexed)	56.4%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

Borrower Types

Regional Distribution

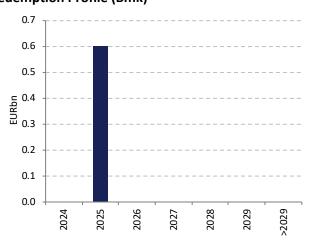




Spread Development

ASW in bp Feb-19 Oct-19 Oct-19 Jun-21 Jun-22 Oct-22 Oct-22 Oct-22 Oct-23 Jun-23 Jun-23 Jun-23

Redemption Profile (Bmk)





KHFC - Mortgage (Global)

South Korea



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

Cover pool volume (EURm)	3,330	Rating (Moody's)	Aaa
Amount outstanding (EURm)	1,967	Rating (S&P)	AAA
-thereof ≥ EUR 500m	58.5%	Rating (Fitch)	-
Current OC (nominal)	69.3%	Rating (DBRS)	-
Committed OC	8.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% South Korea	Collateral score	8.0%
Main region	33% Gyeonggi	RRL	aa
Number of loans	34,648	JRL	aa
Number of borrowers	n/a	Unused notches	0
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	4.2%
WAL (cover pool)	27.3y	PCU	-
WAL (covered bonds)	3.2y	Recovery uplift	-
Fixed interest (cover pool)	100.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	60.8%	LCR level (Bmk)	2A
LTV (unindexed)	56.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

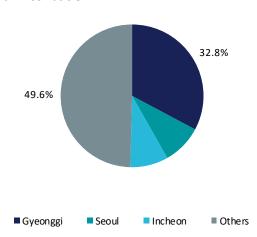
Borrower Types

100.0%

■Commercial ■ Multi-family

■ Others

Regional Distribution

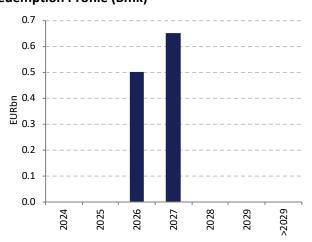


Spread Development

■ Residential



Redemption Profile (Bmk)





Market Overview Covered Bonds

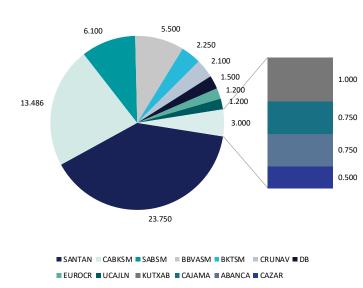
Spain



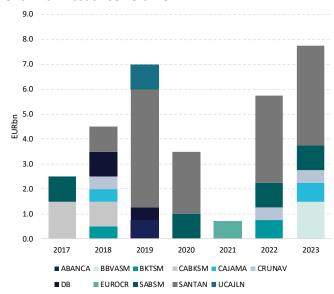
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 316.30bn	Outstanding volume (Bmk)	EUR 60.09bn
Amount outstanding	EUR 192.81bn	Number of benchmarks	52
Number of issuer	14	Outstanding ESG volume (Bmk)	EUR 3.80bn
No of cover pools	14	Number of ESG benchmarks	6
there of M / PS / others	13/0/1	Outstanding volume (SBmk)	-
Ratings (low / high)	AA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	HB, SB

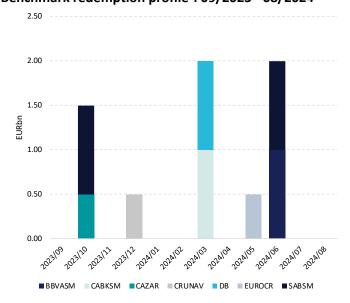
Outstanding benchmark volume¹ (EURbn)



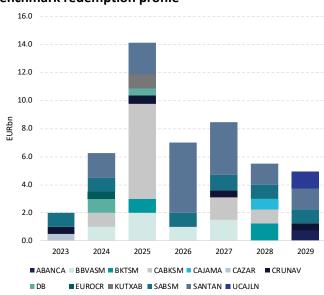
Benchmark issuance volume¹



Benchmark redemption profile1: 09/2023 - 08/2024



Benchmark redemption profile12





ABANCA Corporacion Bancaria

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

ABANCA Corporacion Bancaria, S.A.

	Rating	Outlook
Fitch	BBB-	Stable
Moody's*	Baa3	Stable
S&P	BBB-	Stable

Homepage

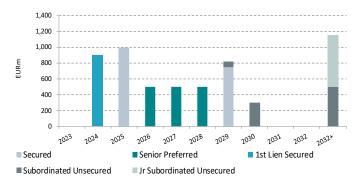
www.abancacorporacionbancaria.com ABANCA Corporacion Bancaria, S.A. (ABANCA), headquartered in A Coruna in north-west Spain, ranks among the ten largest banks in Spain. In addition to retail customers, the group maintains a focus on SMEs. Customers are offered a wide range of financial services that includes insurance products and asset management. The group has a network of 669 branches (FY 2022). Of these, 623 are located in Spain and 44 in Portugal, with one each in the USA and Switzerland. ABANCA also operates representative offices in a further eight countries around the world. The main shareholder of the group is Juan Carlos Escotet Rodríguez. The private individual holds a stake of 43.5%, with the Escotet Family Office S.L. owning a further 41.25% of the shares (FY 2022). The group is a market leader in its domestic region, the autonomous community of Galicia, in the area of lending (market share as at September 2022: 36.4%) and deposits (45.8%), while its nationwide market share stands at 3.3% for loans and 3.2% for deposits. In addition, ABANCA boasts a 1.3% market share for loans on the Portuguese market. The bank reports in the business segments Retail Banking (FY 2022: 82% of operating earnings), Wholesale Banking (7%) and Non-Financial Subsidiaries (11%). In February 2023, ABANCA signed a purchase agreement to conclude a takeover of Targobank Espana (total assets: EUR 4.0bn, deposits: EUR 3.2bn, 51 branches) from BFCM (transaction to be closed in H2 2023). The funding mix at ABANCA comprises 71% retail deposits, followed by central bank loans at 14%. With its action plan for responsible and sustainable banking, the group is pursuing various goals, including net zero carbon emissions in its operating business by as early as 2024.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	45,982	45,167	44,333
Total Securities	13,929	14,420	14,159
Total Deposits	54,256	52,519	52,901
Tier 1 Common Capital	4,251	4,052	4,006
Total Assets	80,497	76,051	72,148
Total Risk-weighted Assets	32,639	32,468	32,581

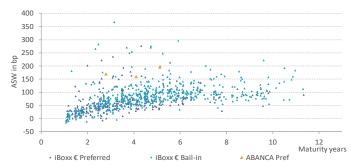
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	674	770	252
Net Fee & Commission Inc.	258	282	76
Net Trading Income	127	32	47
Operating Expense	803	765	181
Credit Commit. Impairment	64	42	29
Pre-tax Profit	370	312	122

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.02	1.07	1.50	Liquidity Coverage Ratio	372.47	360.75	235.18
ROAE	7.03	4.91	9.37	IFRS Tier 1 Leverage Ratio	5.34	5.43	5.66
Cost-to-Income	75.75	67.74	53.63	NPL/Loans at Amortised Cost	2.17	2.09	2.19
Core Tier 1 Ratio	13.02	12.48	12.30	Reserves/Loans at Amort. Cost	1.81	1.71	1.76

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research;\ as\ of:\ 31.07.2023$

Strengths / Opportunities

- Market position in Galicia
- Liquidity
- Asset quality in a peer comparison

- Capitalisation
- Geographical concentration
- Profitability

^{*} Senior Unsecured/LT Bank Deposits



ABANCA – Mortgage

Spain

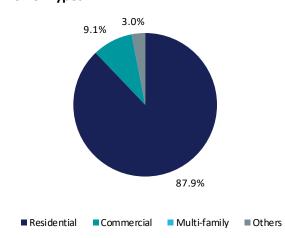


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

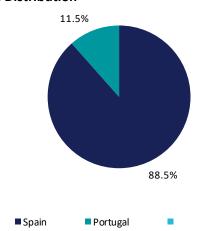
Cover Pool Data

Cover pool volume (EURm)	4,642	Rating (Moody's)	Aa1
Amount outstanding (EURm)	2,860	Rating (S&P)	AA+
-thereof ≥ EUR 500m	26.2%	Rating (Fitch)	-
Current OC (nominal)	62.3%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	1
Main country	88% Spain	Collateral score	5.7%
Main region	46% Galicia	RRL	bbb+
Number of loans	57,630	JRL	a
Number of borrowers	92,761	Unused notches	1
Avg. exposure to borrowers (EUR)	48,520	AAA credit risk (%)	11.7%
WAL (cover pool)	9.6y	PCU	-
WAL (covered bonds)	3.7y	Recovery uplift	-
Fixed interest (cover pool)	23.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	65.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	50.7%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	НВ

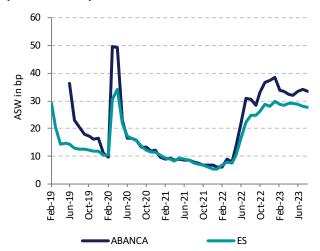
Borrower Types



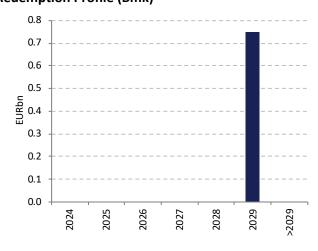
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco de Sabadell

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco de Sabadell, S.A.

	Rating	Outlook
Fitch	BBB-	Positive
Moody's*	Baa2	Positive
S&P	BBB	Positive

Homepage

www.grupbancsabadell.com

In terms of total assets (FY 2022: EUR 251bn), Banco de Sabadell, S.A. (BDS) is the fourthlargest banking group in Spain, comprising a number of banks, brands and subsidiaries. Its shares are listed on the four Spanish stock exchanges. Headquartered in Alicante, the bank employs nearly 19,000 staff, who serve more than 12 million customers in around 1,500 branches. In Spain, the banking group covers a broad spectrum of banking products for retail and corporate customers. In the UK, BDS offers retail banking services via its subsidiary TSB, while the Mexican market is served with financial services for businesses. The group reports across the following segments: Banking Business Spain (FY 2022: 74% of operating earnings), Banking Business UK (23%) and Banking Business Mexico (3%). The loan portfolio is primarily composed of mortgages (51%) and corporate loans (33%, SMEs and corporates). Geographically, the domestic market of Spain accounts for the majority of the loan portfolio at 64% (FY 2022), followed by the UK (27%) and other international markets (including Mexico) at 9%. In Spain, BDS boasts a market share of 8% for loans and 7% for customer deposits (FY 2022). The funding mix at group level mainly comprises deposits (FY 2022: 73%), followed by ECB refinancing and wholesale funding at 10% each. At 43%, covered bonds represent the main component of wholesale funding. As part of the bank's sustainability strategy, several green bonds have been issued since 2020 under the ICMAcompliant framework based on the UN Sustainable Development Goals (SDGs). The volume of green bonds placed by year-end 2022 amounted to EUR 2.8bn, of which EUR 2.7bn was still outstanding

Balance Sheet

2021Y	2022Y	2023Q1
157,366	158,730	155,413
24,632	32,876	33,155
162,239	164,076	161,567
10,080	10,083	9,813
251,947	251,380	248,480
80,646	79,545	77,707
	157,366 24,632 162,239 10,080 251,947	157,366 158,730 24,632 32,876 162,239 164,076 10,080 10,083 251,947 251,380

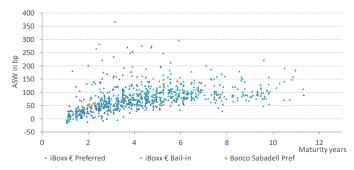
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	3,425	3,799	1,100
Net Fee & Commission Inc.	1,468	1,490	350
Net Trading Income	344	104	1
Operating Expense	3,075	2,979	742
Credit Commit. Impairment	960	839	205
Pre-tax Profit	620	1,243	342

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.48	1.57	1.86	Liquidity Coverage Ratio	214.34	224.36	218.89
ROAE	4.23	6.63	6.21	IFRS Tier 1 Leverage Ratio	4.07	4.11	-
Cost-to-Income	60.86	58.01	56.78	NPL/Loans at Amortised Cost	3.62	3.44	3.55
Core Tier 1 Ratio	12.50	12.68	12.63	Reserves/Loans at Amort. Cost	2.06	1.87	1.92

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in ES (particularly for SMEs)
- Liquidity buffer
- Reduction of balance sheet risks

- Share of DTAs
- Profitability
- Earnings situation in the UK-based business

^{*} LT Bank Deposits



Banco de Sabadell - Mortgage

Spain ==

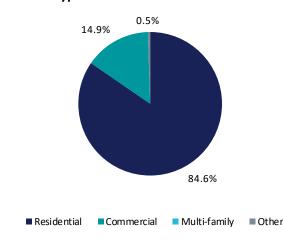


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

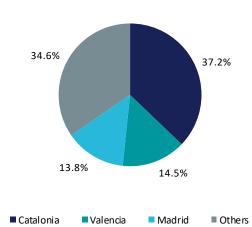
r	OV.	۵r	Poo	l Data

Cover pool volume (EURm)	25,397	Rating (Moody's)	Aa1
Amount outstanding (EURm)	17,114	Rating (S&P)	-
-thereof ≥ EUR 500m	29.8%	Rating (Fitch)	-
Current OC (nominal)	48.4%	Rating (DBRS)	AAA
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	1
Main country	100% Spain	Collateral score	6.8%
Main region	37% Catalonia	RRL	-
Number of loans	277,025	JRL	-
Number of borrowers	257,234	Unused notches	-
Avg. exposure to borrowers (EUR)	98,239	AAA credit risk (%)	-
WAL (cover pool)	9.8y	PCU	-
WAL (covered bonds)	3.2y	Recovery uplift	-
Fixed interest (cover pool)	63.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	44.9%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	50.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

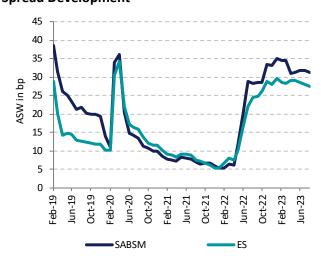
Borrower Types



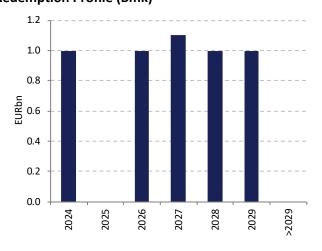
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco Santander

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco Santander, S.A.

	Rating	Outlook
Fitch	A-	Stable
Moody's	A2	Stable
S&P	A+	Stable

Homepage

www.santander.com

Banco Santander, S.A. (Santander), headquartered in the city of Santander in northern Spain, is one of the largest banks in the eurozone as measured by assets. Santander is the parent company of the Santander Group, which is a global systemically important bank (G-SIB). Its shares are traded on various stock exchanges around the world, while the largest shareholder is BlackRock (16 June 2023: 7.84%). Around the world, 160 million customers are served by approximately 206,500 employees at around 9,000 branches (FY 2022). Consolidated earnings at Banco Santander are broken down by regions and primary segments: Europe (FY 2022: 33%), South America and North America (31% and 25% respectively) in addition to the segment Digital Consumer Bank (DCB: 11%). Secondary reporting is conducted across the segments of Retail Banking, Santander Corporate & Investment Banking (SCIB), Wealth Management & Insurance, PagoNxt and Corporate Center. In geographical terms, the loan portfolio can be broken down by region as follows: Europe (FY 2022: 57%), North America (16%), South America (15%) and DCB (12%). In terms of business areas, the main share of the loan portfolio is attributable to mortgages (34%), followed by consumer lending (23%), corporate loans (14%) and SCIB (14%). The funding mix at group level is primarily composed of deposits (FY 2022: 71%). The two main components of wholesale funding are senior debt (FY 2022: 62%) and covered bonds (24%). Since 2021, Santander has been a member of the Net-Zero Banking Alliance. As part of its sustainability strategy, the group has issued three green bonds (as at Q1 2023) since 2019 and has raised or brokered EUR 96.2bn in green financing. The bank is aiming to increase

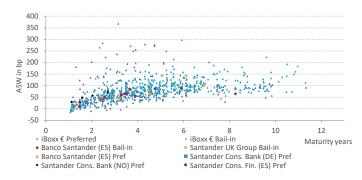
Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	972,681	1,036,004	1,045,044
Total Securities	244,888	280,758	316,936
Total Deposits	918,344	1,009,723	1,013,778
Tier 1 Common Capital	72,402	74,202	77,628
Total Assets	1,595,838	1,734,660	1,780,493
Total Risk-weighted Assets	578,930	609,266	631,149

Income Statement (EURm) 2021Y 2022Y 2023H1 33,370 38,619 20,920 Net Interest Income 11,790 6,103 Net Fee & Commission Inc. 10.501 1,302 **Net Trading Income** 1,564 1,653 13,809 **Operating Expense** 24,229 25,784 Credit Commit. Impairment 7,388 10,855 6,243 Pre-tax Profit 14,547 15,250 8,090

Redemption Profile (Group)



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.27	2.39	2.54	Liquidity Coverage Ratio	165.01	161.24	158.00
ROAE	10.21	10.94	11.66	IFRS Tier 1 Leverage Ratio	4.76	4.52	4.60
Cost-to-Income	52.04	49.37	48.92	NPL/Loans at Amortised Cost	3.47	3.40	3.41
Core Tier 1 Ratio	12.51	12.18	12.30	Reserves/Loans at Amort. Cost	2.37	2.19	2.22

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Liquidity
- Geographical diversification
- Retail banking business

- Dependency on wholesale funding
- Asset quality
- Activities in higher-risk markets



Banco Santander – Mortgage

Spain =

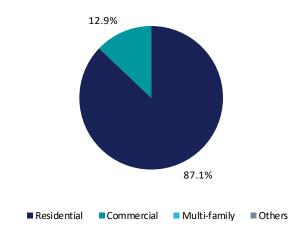


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

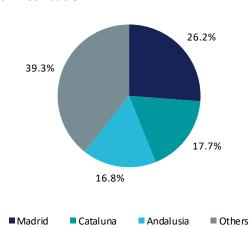
Cover Pool Data

Cover pool volume (EURm)	64,510	Rating (Moody's)	Aa1
Amount outstanding (EURm)	43,129	Rating (S&P)	-
-thereof ≥ EUR 500m	53.9%	Rating (Fitch)	AA
Current OC (nominal)	49.6%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Spain	Collateral score	8.1%
Main region	26% Madrid	RRL	-
Number of loans	718,384	JRL	-
Number of borrowers	678,461	Unused notches	-
Avg. exposure to borrowers (EUR)	95,083	AAA credit risk (%)	-
WAL (cover pool)	17.3y	PCU	3
WAL (covered bonds)	6.5y	Recovery uplift	2
Fixed interest (cover pool)	36.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	84.5%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	50.4%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

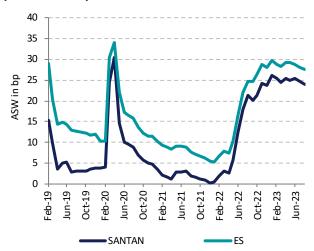
Borrower Types



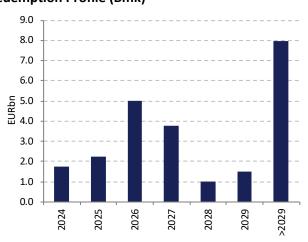
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Banco Santander – Export Finance (Public Sector)

Spain



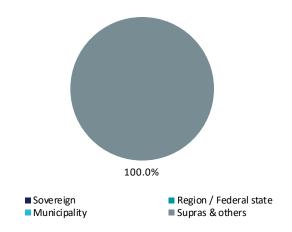
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

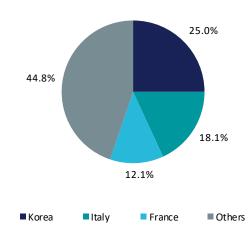
Cover Pool Data

Cover pool volume (EURm)	11,864	Rating (Moody's)	Aa1
Amount outstanding (EURm)	8,573	Rating (S&P)	-
-thereof ≥ EUR 500m	5.8%	Rating (Fitch)	-
Current OC (nominal)	38.4%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable
Cover type	Export Finance	TPI leeway	2
Main country	25% Korea	Collateral score	11.7%
Main region	n/a	RRL	-
Number of loans	546	JRL	-
Number of borrowers	200	Unused notches	-
Avg. exposure to borrowers (EUR)	59,317,500	AAA credit risk (%)	-
WAL (cover pool)	8.3y	PCU	-
WAL (covered bonds)	3.9y	Recovery uplift	-
Fixed interest (cover pool)	19.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	5.8%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

Regional Distribution

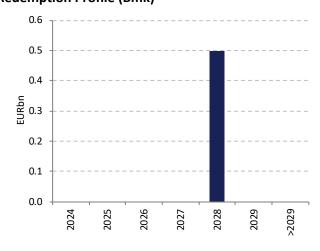




Spread Development

ASW in bp Asw in bp

Redemption Profile (Bmk)





Bankinter

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Bankinter, S.A.

	Rating	Outlook
Fitch	-	-
Moody's*	A3	Stable
S&P	A-	Stable

Homepage

www.bankinter.com

* LT Bank Deposits

Bankinter, S.A. is a commercial bank headquartered in Madrid and listed on the stock exchanges of both Madrid and Barcelona. As measured by assets (FY 2022: EUR 108bn), it is one of the ten largest banks in Spain. At just under 23.2%, Cartival is the largest shareholder in Bankinter, followed by Corporacion Masaveu, at 5.0% (30 June 2023). The group consists of the parent company, Bankinter, and various subsidiaries, which mainly operate in the banking services, asset management and credit card sectors. The group has more than 6,400 employees (FY 2022) that offer retail and corporate customers a broad range of financial services. In geographical terms, Bankinter is active in its domestic market of Spain in addition to Portugal, Luxembourg and Ireland. With the takeover of Evo Banco in 2019, Bankinter has also strengthened its long-term presence in Portugal and Ireland via the subsidiary Avantcard. Operating earnings are primarily attributable to the segments Corporate/SME Banking (FY 2022: 33%), Retail Banking (31%) and BK Consumer Finance (13%). Moreover, reporting also takes place in the segments of BK Investment (7%), BK Portugal (9%), BK Ireland (4%) and EVO Banco (2%). The Spanish loan portfolio (FY 2022) is dominated by the Madrid region (43.5%), followed by Catalonia (9.7%) and Andalusia (7.8%). In 2022, Bankinter and Liberty Seguros struck a deal to merge their insurance businesses in the new entity Bankinter Liberty Hogar y Auto. As a member of the Net-Zero Banking Alliance, the bank has committed to operating on a climate-neutral basis by 2050. Bankinter offers sustainable funds, mortgages and loans for energy-efficient houses as well as to improve the energy efficiency of properties.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	66,282	72,166	72,724
Total Securities	12,481	15,126	14,068
Total Deposits	72,318	74,190	76,055
Tier 1 Common Capital	4,254	4,342	4,548
Total Assets	107,584	107,507	110,099
Total Risk-weighted Assets	35 303	36 602	37 114

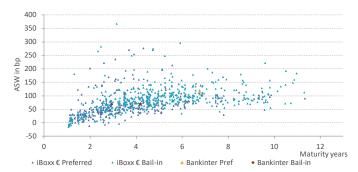
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	1,275	1,537	1,068
Net Fee & Commission Inc.	603	606	303
Net Trading Income	74	71	37
Operating Expense	1,036	1,025	498
Credit Commit. Impairment	263	253	148
Pre-tax Profit	537	785	625

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.28	1.42	2.02	Liquidity Coverage Ratio	229.57	208.54	-
ROAE	27.09	11.53	16.75	IFRS Tier 1 Leverage Ratio	3.99	4.11	4.19
Cost-to-Income	56.21	49.46	39.05	NPL/Loans at Amortised Cost	2.56	2.42	2.55
Core Tier 1 Ratio	12.05	11.86	12.25	Reserves/Loans at Amort. Cost	1.47	1.48	1.58

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Conservative business model
- Profitability
- Asset quality

- Market position in Portugal
- Economic environment may impair asset quality
- Market position in comparison with major banks (ES)



Bankinter – Mortgage

Spain ==

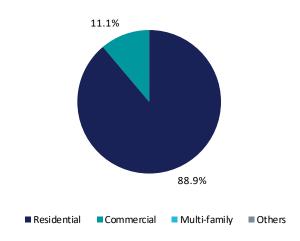


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

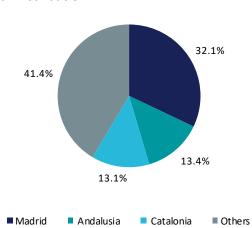
Cover Pool Data

Cover pool volume (EURm)	24,291	Rating (Moody's)	Aa1
Amount outstanding (EURm)	16,253	Rating (S&P)	-
-thereof ≥ EUR 500m	13.8%	Rating (Fitch)	-
Current OC (nominal)	49.5%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	90% Spain	Collateral score	6.1%
Main region	32% Madrid	RRL	-
Number of loans	203,808	JRL	-
Number of borrowers	323,741	Unused notches	-
Avg. exposure to borrowers (EUR)	75,032	AAA credit risk (%)	-
WAL (cover pool)	10.6y	PCU	-
WAL (covered bonds)	5.6y	Recovery uplift	-
Fixed interest (cover pool)	45.6%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	14.2%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	49.9%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

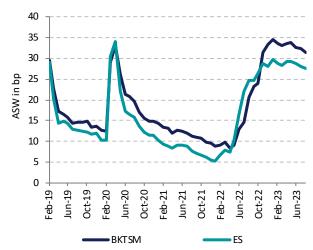
Borrower Types



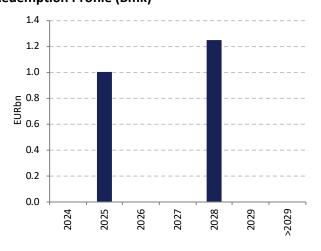
Regional Distribution



Spread Development



Redemption Profile (Bmk)





BBVA Spain

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Banco Bilbao Vizcaya Argentaria SA

	Rating	Outlook
Fitch	BBB+	Stable
Moody's	A3	Stable
S&P	Α	Stable

Homepage

www.bbva.com

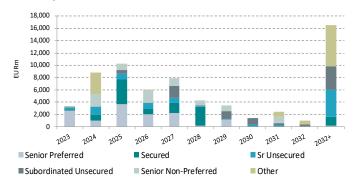
In terms of assets (FY 2022: EUR 713bn), Banco Bilbao Vizcaya Argentaria S.A. (BBVA) is the second-largest banking group in Spain and is categorised by Banco de Espana as an "other systemically important institution" (O-SII). It has around 116,000 employees, who serve a total of 89.3 million customers in more than 25 countries. The bank, which is listed on the stock exchange, boasts a leading position in Spain (market share for loans: 13.3%) and is also the market leader in Mexico. Moreover, BBVA has a strong franchise in both Latin America as well as in Turkey. Around 60% of total assets are attributable to Spain. BBVA reports across the operating segments of Mexico (FY 2022: 48.4% of operating earnings), Spain (21.1%), South America (14.9%), Turkey (13.8%) and Rest of Business (1.8%), in addition to the administrative segment Corporate Center. The Group's loan portfolio is primarily composed of loans to retail customers (44% as at FY 2022), corporate customers (50%) and public sector customers (6%). Other corporate loans account for a share of 28%, followed by mortgages (26%) and corporate and investment bank (22%). The increased shareholding in Türkiye Garanti Bankasi (brand: Garanti BBVA) first announced in 2021 was completed in 2022, with BBVA now holding 85.97% of the shares. In 2022, BBVA increased its stake in Neon Payments Limited to 29.2%. The Group is accelerating its growth through strategic investments in digital banking solutions, such as Neon in Brazil and Solaris in Europe, as well as developing a greater presence in attractive markets. As part of its sustainability and climate protection goals (emissions-free from 2050), a total of EUR 138bn (target 2025: EUR 300bn) in sustainable business has been concluded since 2018.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	335,018	373,400	-
Total Securities	176,193	180,536	-
Total Deposits	367,441	405,897	-
Tier 1 Common Capital	39,949	42,738	-
Total Assets	662,885	713,140	762,500
Total Risk-weighted Assets	307,795	337,066	-

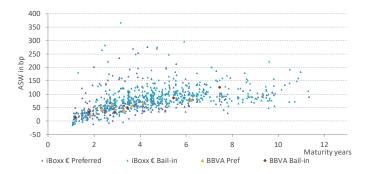
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	14,686	19,153	11,410
Net Fee & Commission Inc.	4,741	5,353	-
Net Trading Income	1,893	1,938	773
Operating Expense	9,746	11,051	-
Credit Commit. Impairment	2,989	3,303	-
Dro-tay Profit	7 2/17	10 356	_

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	2.39	2.84	-	Liquidity Coverage Ratio	164.79	163.52	-
ROAE	11.20	13.86	-	IFRS Tier 1 Leverage Ratio	6.38	6.38	-
Cost-to-Income	45.33	41.22	-	NPL/Loans at Amortised Cost	4.60	3.77	-
Core Tier 1 Ratio	12.98	12.68	-	Reserves/Loans at Amort. Cost	3.37	3.04	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Geographical diversification
- **Profitability**
- Liquidity situation

- Exposure to higher-risk markets
- Earnings stability (sale of US business, exposure in TR)
- Economic environment





BBVA - Mortgage

Spain

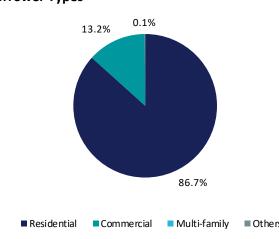


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

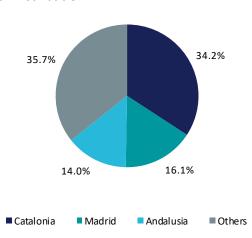
Cover Pool Data

Cover pool volume (EURm)	41,396	Rating (Moody's)	Aa1
Amount outstanding (EURm)	22,518	Rating (S&P)	-
-thereof ≥ EUR 500m	24.4%	Rating (Fitch)	-
Current OC (nominal)	83.8%	Rating (DBRS)	AAA
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Spain	Collateral score	7.3%
Main region	34% Catalonia	RRL	-
Number of loans	623,424	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	9.5y	PCU	-
WAL (covered bonds)	3.7y	Recovery uplift	-
Fixed interest (cover pool)	35.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	31.2%	LCR eligible	Yes
LTV (indexed)	48.6%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	HB & SB

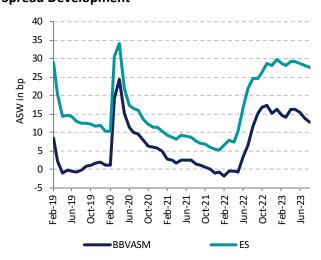
Borrower Types



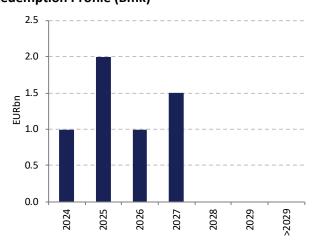
Regional Distribution



Spread Development



Redemption Profile (Bmk)





CaixaBank

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

CaixaBank, S.A.

	Rating	Outlook
Fitch	BBB+	Stable
Moody's	Baa1	Stable
S&P	A-	Stable

Homepage

www.caixabank.com

CaixaBank, S.A. (Caixa), headquartered in Madrid, is the third largest banking group in Spain as measured by total assets (FY 2022: EUR 592bn). It is categorised by Banco de Espana as an other systemically important institution (O-SII). Caixa is listed on the stock exchanges in Barcelona, Madrid, Valencia and Bilbao. It is active throughout Spain as well as in Portugal via its wholly owned subsidiary Banco BPI. The main shareholders in the bank are Criteria Caixa (30 June 2023: 32.2%) and the Spanish government, which holds an indirect stake of 17.3% following the merger with Bankia in 2021. The universal bank offers its retail and corporate customers a range of banking and insurance products. Caixa employs around 45,000 staff, who serve 20.2 million customers via 4,404 branches (FY 2022) as well as digital sales platforms. On the Spanish market, the bank boasts high market shares in the areas of loans (24%), customer deposits (25%) and mortgages (26%). In Portugal, Caixa has a market share of 12% for loans and 11% for deposits. The Group reports across the following segments: Banking and Insurance Business (FY 2022: 90% of operating earnings), BPI (8%) and Corporate Centre (2%). The loan portfolio of the bank primarily comprises corporate loans (44%) and residential mortgages (38%), with the public sector also accounting for a share of 6%. In geographical terms, Spanish business activities are focused on the autonomous regions of Madrid, Catalonia, Andalusia and Valencia. In total, deposits make up 88% (FY 2022) of the funding mix. As part of its framework based on the UN Sustainable Development Goals (SDGs), Caixa has issued ESG bonds totalling EUR 9.6bn (FY 2022) since 2019.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	344,591	352,884	355,214
Total Securities	97,693	173,636	177,949
Total Deposits	392,479	393,634	400,403
Tier 1 Common Capital	27,701	26,912	-
Total Assets	680.036	598.850	625,597

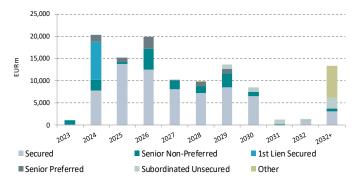
216,149

215,645

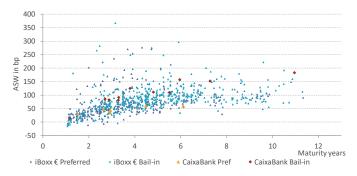
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	5,975	6,527	4,624
Net Fee & Commission Inc.	3,705	3,855	1,846
Net Trading Income	220	328	142
Operating Expense	6,348	5,655	3,026
Credit Commit. Impairment	897	982	422
Pre-tax Profit	5,315	4,320	3,154

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.13	1.14	1.60	Liquidity Coverage Ratio	336.31	194.36	207.16
ROAE	15.42	8.97	12.78	IFRS Tier 1 Leverage Ratio	4.14	-	-
Cost-to-Income	61.30	51.38	45.43	NPL/Loans at Amortised Cost	3.96	3.03	2.90
Core Tier 1 Ratio	12.82	12.48	12.40	Reserves/Loans at Amort. Cost	2.34	2.05	2.03

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in Spain
- Liquidity
- · Long-term benefits from Bankia merger

- Asset quality
- Profitability
- Geographical concentration (Spain, Portugal)



CaixaBank - Mortgage

Spain =

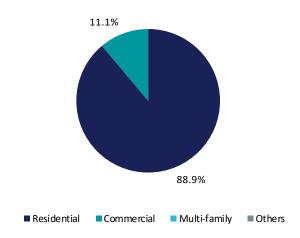


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

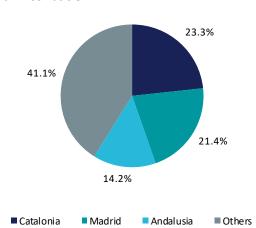
Cover Pool Data

Cover pool volume (EURm)	105,845	Rating (Moody's)	Aa1
Amount outstanding (EURm)	53,804	Rating (S&P)	AA+
-thereof ≥ EUR 500m	25.1%	Rating (Fitch)	-
Current OC (nominal)	96.7%	Rating (DBRS)	AAA
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Spain	Collateral score	6.4%
Main region	23% Catalonia	RRL	a+
Number of loans	1,560,239	JRL	a+
Number of borrowers	1,441,396	Unused notches	0
Avg. exposure to borrowers (EUR)	73,432	AAA credit risk (%)	14.3%
WAL (cover pool)	9.1y	PCU	-
WAL (covered bonds)	4.3y	Recovery uplift	-
Fixed interest (cover pool)	37.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	35.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	43.6%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	НВ

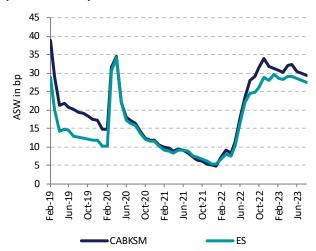
Borrower Types



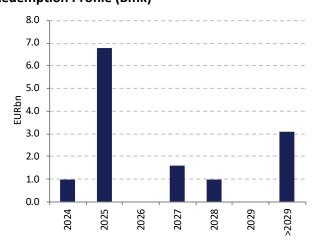
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Grupo Cooperativo Cajamar

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Cajamar Caja Rural SCC

	Rating	Outlook
Fitch	-	-
Moody's	-	-
S&P	BB+	Stable

Homepage

www.cajamar.es

Grupo Cooperativo Cajamar (GCC) is the largest cooperative banking group in Spain as measured by assets (Q1 2023: EUR 63bn). GCC is comprised of Banco de Credito Cooperativo (BCC) along with Cajamar Caja Rural (Cajamar) and 18 other credit unions. With a share of 92%, the main shareholders in BCC are the cooperative banks. BCC functions as the parent company of the group as well as the central bank for the cooperative banks, which it supports with financial and credit services. Around 5,200 employees serve 3.7 million customers (of whom more than 1.7 million are members of the cooperative) across 842 branches. The group reports in the main segment Retail Banking. The bank has a market share of 15.9% for loans to the agri-food industry (FY 2022), while the equivalent figures for customer deposits and loans come to 2.5% and 3.0% respectively. The loan portfolio consists of loans to households (35.2%), the agri-food industry (18.5%) and microenterprises (11.1%). The portfolio is rounded off by loans to large enterprises (11.0%), banks (10.5%) and the public sector (6.7%). The lion's share of the funding mix (FY 2022) comprises customer deposits (74.6%) and central bank loans (12.3%). Cajamar issues covered bonds, while BCC issues senior debt and hybrid capital. As part of the Sustainable Bond Framework established in December 2021, GCC issued its first social bond (senior) in 2022. The group is striving to operate on a climate-neutral basis from 2050 onwards and signed up as a member of the Net-Zero Banking Alliance in 2022.

Balance Sheet					
(EURm)	2021Y	2022Y	20		
Net Loans to Customers	34,159	36,256	:		
Total Securities	15,890	18,916			
Total Deposits	39,733	43,153			

(EURIII)	20211	20221	2023Q1
Net Loans to Customers	34,159	36,256	36,041
Total Securities	15,890	18,916	19,449
Total Deposits	39,733	43,153	-
Tier 1 Common Capital	3,297	3,360	3,338
Total Assets	58,513	62,314	62,982
Total Risk-weighted Assets	24,814	24,883	24,903

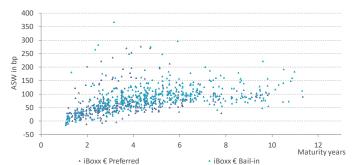
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	672	703	208
Net Fee & Commission Inc.	225	264	70
Net Trading Income	9	108	4
Operating Expense	645	626	174
Credit Commit. Impairment	307	218	46
Pre-tax Profit	78	73	29

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	1.28	1.21	1.40	Liquidity Coverage Ratio	230.37	180.25	185.21
ROAE	1.80	2.17	2.52	IFRS Tier 1 Leverage Ratio	5.67	5.42	5.33
Cost-to-Income	76.61	61.02	64.05	NPL/Loans at Amortised Cost	3.88	2.83	2.69
Core Tier 1 Ratio	13.29	13.50	13.40	Reserves/Loans at Amort. Cost	2.69	1.90	1.86

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position
- Deposit basis
- Capitalisation

- Geographical concentration risks
- Loan quality in a peer comparison
- Profitability in a peer comparison



Cajamar Caja Rural – Mortgage

Spain -

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

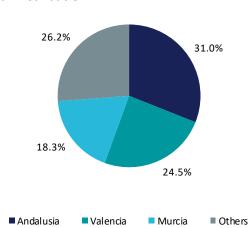
Cover Pool Data

Cover pool volume (EURm)	8,113	Rating (Moody's)	-
Amount outstanding (EURm)	6,100	Rating (S&P)	AA+
-thereof ≥ EUR 500m	12.3%	Rating (Fitch)	-
Current OC (nominal)	33.0%	Rating (DBRS)	-
Committed OC	0.0%	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Spain	Collateral score	-
Main region	31% Andalusia	RRL	bbb
Number of loans	123,361	JRL	a
Number of borrowers	118,413	Unused notches	0
Avg. exposure to borrowers (EUR)	65,134	AAA credit risk (%)	2.5%
WAL (cover pool)	8.5y	PCU	-
WAL (covered bonds)	4.6y	Recovery uplift	-
Fixed interest (cover pool)	16.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	46.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

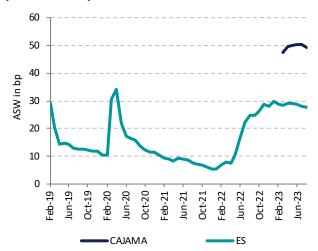
Borrower Types

4.7% 4.9% 90.3% Residential Commercial Multi-family Others

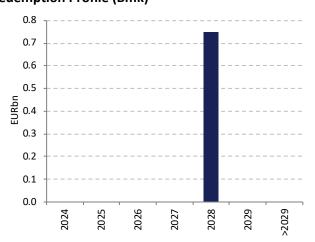
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Eurocaja Rural

Spain 🔼



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Eurocaja Rural SCC

	Rating	Outlook
Fitch	BBB	Stable
Moody's	-	-
S&P	-	-

Homepage

www.eurocajarural.es

Eurocaja Rural, Sociedad Cooperativa de Credito (Eurocaja), headquartered in Toledo, is a smaller bank in a national comparison with total assets of EUR 9.7bn (FY 2022). It is a notfor-profit establishment with its own legal entity and has full legal capacity, acting as a foundation and issuer of social security. Having originally been founded in 1963 in order to meet the financial needs of the regional agricultural sector, today Eurocaja is a universal bank that primarily focuses on retail customers and SMEs. Via its subsidiaries, the bank also offers services as a property agent and insurance broker. The bank has around 1,100 employees and operates a network of over 430 branches. Eurocaja has defined the autonomous community of Castile-La Mancha as its domestic market. However, the bank is among others also active in Madrid, Avila, Valencia and Murcia. Moving forwards, the bank is aiming to achieve stronger growth beyond the borders of its core market. The vast majority of Eurocaja's loan portfolio is made up of loans to households (FY 2022: 72%), while loans to businesses (excl. financial institutes) account for a share of 20% and the public sector 8%. Geographically, the group's activities are focused on Spain (72% of assets) and more precisely on the autonomous communities Castile-La Mancha (42%) and Madrid (26%). Deposits constitute the majority of the funding mix at 70% of overall funding. As part of its sustainability strategy and taking into account its ESG Framework, Eurocaja placed an inaugural ESG covered bond in 2021. The ESG Framework is geared towards both the Green Bond and Social Bond Principles of the ICMA.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	4,945	4,576	4,896
Total Securities	3,135	2,663	3,029
Total Deposits	6,373	6,627	7,095
Tier 1 Common Capital	506	533	563
Total Assets	8,761	9,080	9,683

3.074

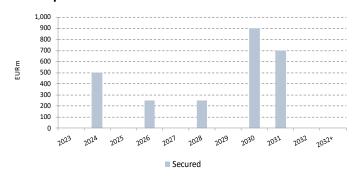
3,106

3,309

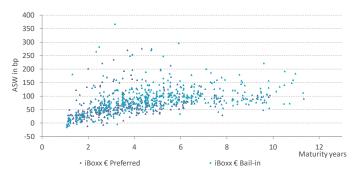
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	87	83	112
Net Fee & Commission Inc.	46	46	52
Net Trading Income	5	9	8
Operating Expense	86	86	96
Credit Commit. Impairment	-	-	-
Pro-tay Profit	40	45	63

Total Risk-weighted Assets Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.06	0.94	1.21	Liquidity Coverage Ratio	289.00	277.78	-
ROAE	7.01	7.48	9.63	IFRS Tier 1 Leverage Ratio	5.79	5.88	5.82
Cost-to-Income	66.06	63.97	56.97	NPL/Loans at Amortised Cost	1.72	1.75	1.71
Core Tier 1 Ratio	16.47	17.15	17.02	Reserves/Loans at Amort. Cost	2.19	2.22	2.20

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality in a sector comparison
- Capitalisation
- Regional franchise

- Economic environment
- Geographical concentration
- Profitability



Eurocaja – Mortgage

Spain

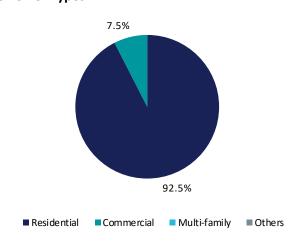


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

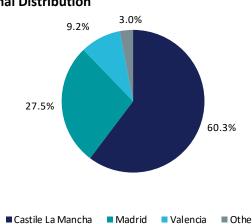
Cover Pool Data

Cover pool volume (EURm)	2,189	Rating (Moody's)	Aa1
Amount outstanding (EURm)	1,200	Rating (S&P)	-
-thereof ≥ EUR 500m	100.0%	Rating (Fitch)	-
Current OC (nominal)	82.4%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	Unpublished
Main country	100% Spain	Collateral score	6.2%
Main region	60% Castile La Mancha	RRL	-
Number of loans	29,597	JRL	-
Number of borrowers	47,860	Unused notches	-
Avg. exposure to borrowers (EUR)	45,730	AAA credit risk (%)	-
WAL (cover pool)	14.5y	PCU	-
WAL (covered bonds)	5.4y	Recovery uplift	-
Fixed interest (cover pool)	29.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	57.4%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

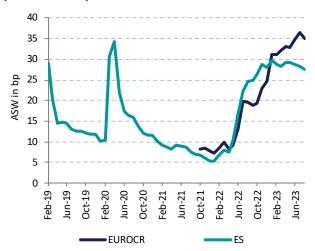
Borrower Types



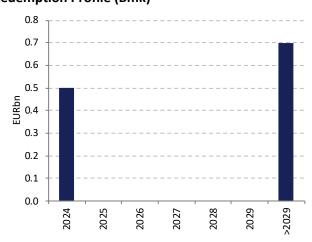
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Caja Rural de Navarra

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Caja Rural de Navarra SCC

	Rating	Outlook
Fitch	BBB+	Stable
Moody's*	Baa1	Stable
S&P	=	-

Homepage

www.cajaruraldenavarra.com

*LT Bank Deposits LC

Caja Rural de Navarra, Sociedad Cooperativa de Credito (CRN) is a regional cooperative bank headquartered in Pamplona. As measured by total assets, CRN is one of the largest cooperative banks in Spain (FY 2022: EUR 16.1bn). The bank focuses primarily on the region of Navarra, where it boasts high market shares for loans (as at September 2022: 28.3%) and deposits (29.4%). It also operates in the neighbouring regions of La Rioja and the Basque Country. Its business activities are focused on retail banking and therefore on retail customers and SMEs. The owners of this cooperative bank are its more than 178,000 members (FY 2022). Along with 29 other cooperative banks and Banco Cooperativo Espanol (owners FY 2022: 88% Caja Rural Group, 12% DZ BANK), CRN forms part of the Asociacion Espanola de Cajas Rurales (AECR). Banco Cooperativo Espanol S.A. (BCE) acts as the central bank for the cooperative banks. The Caja Rural Group is also part of AECR's institutional protection scheme. Geographically, loans to private households are focused almost exclusively on Spain - and on the autonomous community of Navarra (46%) as well as the Basque Country (45%) in particular. A total of 7% of loans are attributable to the region of La Rioja. CRN is able to issue green, social and sustainable bonds as part of its Sustainability Bond Framework. In so doing, it also takes into account the EU Taxonomy, the EU Green Bond Standard recommendations and the ICMA Principles. The bank placed its first sustainable covered bond as far back as 2016, while its first green covered bond was issued in 2022.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	9,314	9,446	9,514
Total Securities	4,648	5,093	4,928
Total Deposits	10,198	10,261	10,939
Tier 1 Common Capital	1,317	1,425	1,532
Total Assets	15,850	16,333	16,097
Total Risk-weighted Assets	7,202	7,613	7,525

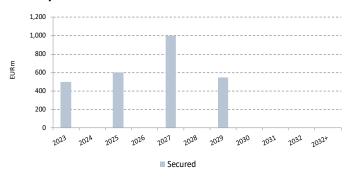
Income Statement 2020Y 2021Y 2022Y (EURm) Net Interest Income 147 141 160 Net Fee & Commission Inc. 69 83 90 **Net Trading Income** 1 3 -1 **Operating Expense** 110 192 195

99

102

124

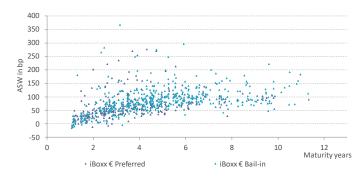
Redemption Profile



Senior Unsecured Bonds (EUR BMK)

Credit Commit. Impairment

Pre-tax Profit



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.05	0.90	1.02	Liquidity Coverage Ratio	336.91	361.66	311.72
ROAE	6.67	6.52	7.32	IFRS Tier 1 Leverage Ratio	8.31	8.77	9.56
Cost-to-Income	38.14	61.99	57.78	NPL/Loans at Amortised Cost	1.90	1.90	1.85
Core Tier 1 Ratio	18.28	18.72	20.35	Reserves/Loans at Amort. Cost	2.15	2.20	2.16

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Loan quality
- Funding profile
- Profitability

- Economic environment
- Operating costs
- Efficiency



Caja Rural de Navarra – Mortgage

Spain 🔤

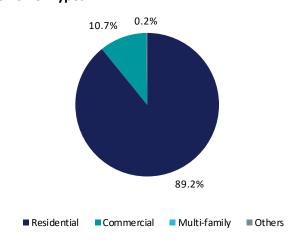


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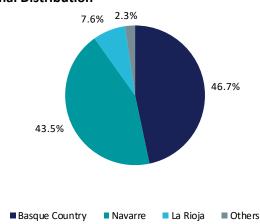
Cover Pool Data

Cover pool volume (EURm)	2,919	Rating (Moody's)	Aa1
Amount outstanding (EURm)	2,650	Rating (S&P)	-
-thereof ≥ EUR 500m	60.4%	Rating (Fitch)	-
Current OC (nominal)	10.2%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Spain	Collateral score	6.2%
Main region	47% Basque Country	RRL	-
Number of loans	33,111	JRL	-
Number of borrowers	47,897	Unused notches	-
Avg. exposure to borrowers (EUR)	60,844	AAA credit risk (%)	-
WAL (cover pool)	10.4y	PCU	-
WAL (covered bonds)	3.4y	Recovery uplift	-
Fixed interest (cover pool)	33.1%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	54.7%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	HB & SB

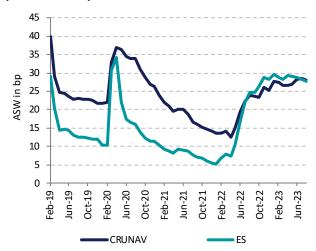
Borrower Types



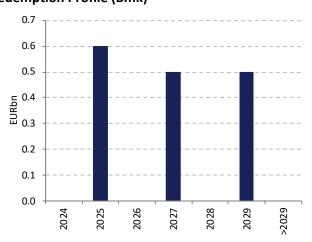
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Deutsche Bank S.A.E.

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Deutsche Bank SA Espanola

	Rating	Outlool
Fitch	-	-
Moody's	-	-
S&P	-	-

Homepage

www.deutsche-bank.es

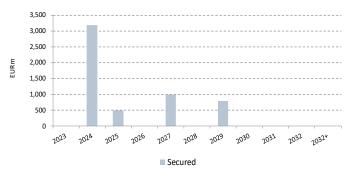
Deutsche Bank Sociedad Anonima Espanola (DB SAE) is headquartered in Madrid. Along with its subsidiaries, it is wholly owned by Deutsche Bank AG. As a result, it is also part of the Deutsche Bank Group, which is active worldwide and considered to be a global systemically important bank (G-SIB). Since its merger with the subsidiaries Banco Comercial Transatlantico and Banco de Madrid in 1994, the bank has operated under the name DB SAE. The bank is a shareholder and majority owner in various companies both in Spain and abroad, which together form the Deutsche Bank SAE Group. It has around 2,000 staff and serves its customers in 125 branches (FY 2022) in Spain, including 10 flagship branches. DB SAE follows the business model of a customer-focused universal bank, offering its customers not only products in the areas of deposits, loans, mortgages and debit cards, but investment and insurance products. In addition, it offers numerous financial services to corporate customers. The bank divides its activities into the operating business segments International Private Bank (FY 2022: 82% of income from normal business activities), Corporate Bank (15%), Investment Bank (5%) and Asset Management. Geographically, the majority of the bank's activities are attributable to the autonomous communities of Madrid (45%), Catalonia (22%), Andalusia (8%), Valencia (6%) and the Basque Country (6%). A total of just under 90% of the funding mix consists of customer deposits, while the rest is comprised of wholesale funding. Capital market funding is made up entirely of covered bonds. As at the end of March 2023, the outstanding volume of covered bonds amounted to EUR 4.9bn (of which EUR 3.4bn retained).

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	13,543	14,222	15,014
Total Securities	554	281	577
Total Deposits	9,930	10,095	11,924
Tier 1 Common Capital	1,121	1,109	1,107
Total Assets	18,324	18,109	20,782
Total Risk-weighted Assets	10,821	11,386	11,384

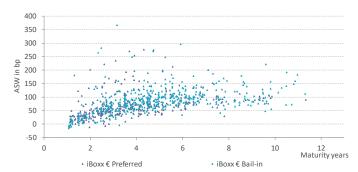
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	238	268	305
Net Fee & Commission Inc.	257	243	216
Net Trading Income	5	6	-15
Operating Expense	402	430	394
Credit Commit. Impairment	80	70	61
Pro-tay Profit	-7	-12	18

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.35	1.50	1.61	Liquidity Coverage Ratio	267.00	194.00	-
ROAE	-0.45	-0.88	1.01	IFRS Tier 1 Leverage Ratio	6.25	6.19	5.57
Cost-to-Income	84.94	89.22	83.60	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	10.36	9.74	9.73	Reserves/Loans at Amort. Cost	2.44	2.51	2.55

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Integration in Deutsche Bank Group
- Regional market position

- Geographical diversification
- Economic environment may impair asset quality



Deutsche Bank S.A.E. – Mortgage

Spain

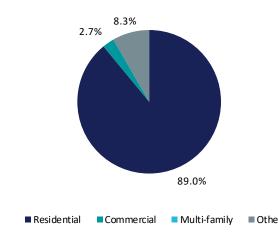


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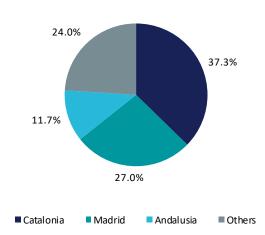
Cover	Pool	Data
CUVEI	F UU	ı Data

Cover pool volume (EURm)	6,130	Rating (Moody's)	Aa1
Amount outstanding (EURm)	4,855	Rating (S&P)	-
-thereof ≥ EUR 500m	30.9%	Rating (Fitch)	-
Current OC (nominal)	26.3%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	Unpublished
Main country	100% Spain	Collateral score	5.6%
Main region	37% Catalonia	RRL	-
Number of loans	62,864	JRL	-
Number of borrowers	63,202	Unused notches	-
Avg. exposure to borrowers (EUR)	88,921	AAA credit risk (%)	-
WAL (cover pool)	19.1y	PCU	-
WAL (covered bonds)	2.7y	Recovery uplift	-
Fixed interest (cover pool)	16.1%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	31.0%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.1%	Risk weight	10%
Loans in arrears	1.8%	Maturity structure (Bmk)	НВ

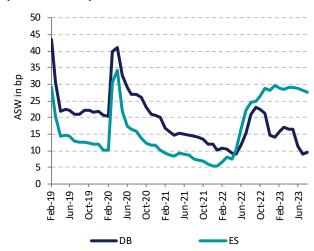
Borrower Types



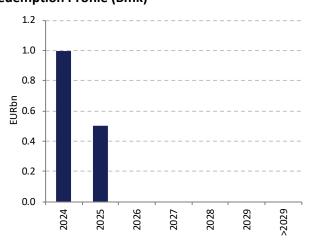
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Ibercaja Banco

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Ibercaja Banco, S.A.

	Rating	Outlook
Fitch	BBB-	Stable
Moody's*	Baa3	Positive
S&P	BBB-	Stable

Homepage

www.ibercaja.com

* LT Bank Deposits

Ibercaja Banco S.A. (Ibercaja), headquartered in Zaragoza, is one of the ten largest banks in Spain as measured by total assets (FY 2022: EUR 54bn). At 88%, the main shareholder in Ibercaja is Fundacion Bancaria Ibercaja, with the remaining 12% held by a trio of minority shareholders. Ibercaja is a universal bank with around 4,800 employees, who serve its customers in approximately 900 branches. The bank offers a wide range of banking and financial services, with a particular focus on mortgages for first-time buyers, loans to SMEs, asset management and insurance products. Loans for property financing comprise 61.1% of the overall lending portfolio. Ibercaja divides its business into the segments Private Banking, Business and Institutions and Other Lines of Business. The bank operates exclusively in Spain, with a focus on Aragon, La Rioja, Guadalajara, Burgos und Badajoz, regions in which the bank boasts significant market shares (FY 2022) for retail customer deposits (31%) and loans (21%). Alongside its domestic market, the group operates in other regions of Spain too. On a national level, Ibercaja has a market share of 2.4% in the lending business (households and non-financial companies), 2.7% for deposits (retail and commercial) and 3.5% for individual property financing (FY 2022). The funding mix at Ibercaja mostly consists of customer deposits (87.1%), followed by central bank and interbank lending (4.7%). Covered bonds account for a share of 3.1%.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	30,655	30,901	30,473
Total Securities	18,188	18,303	18,706
Total Deposits	38,268	38,842	35,861
Tier 1 Common Capital	2,420	2,323	2,322
Total Assets	58,631	54,361	54,063

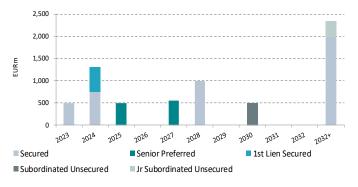
18,052

Income Statement

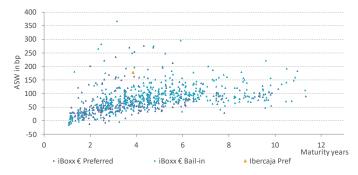
(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	493	558	158
Net Fee & Commission Inc.	438	438	109
Net Trading Income	5	6	1
Operating Expense	601	591	155
Credit Commit. Impairment	80	65	13
Pre-tax Profit	215	283	92

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.89	1.00	1.23	Liquidity Coverage Ratio	452.03	306.49	359.21
ROAE	4.61	6.32	6.42	IFRS Tier 1 Leverage Ratio	4.17	4.34	4.37
Cost-to-Income	65.94	60.51	58.67	NPL/Loans at Amortised Cost	2.34	1.60	1.62
Core Tier 1 Ratio	13.41	12.87	12.98	Reserves/Loans at Amort. Cost	1.73	1.42	1.45

17,892

18,045

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Regional market position
- Asset quality
- · Funding profile

- Geographical concentration
- Profitability
- Capitalisation (high share of DTAs)



Ibercaja Banco – Mortgage

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Data

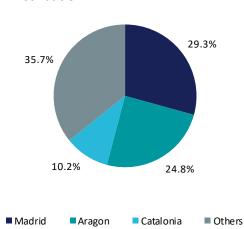
Cover pool volume (EURm)	4,451	Rating (Moody's)	Aa1
Amount outstanding (EURm)	3,331	Rating (S&P)	AA
-thereof ≥ EUR 500m	0.0%	Rating (Fitch)	-
Current OC (nominal)	33.6%	Rating (DBRS)	-
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	1
Main country	100% Spain	Collateral score	5.5%
Main region	29% Madrid	RRL	bbb+
Number of loans	80,090	JRL	a
Number of borrowers	n/a	Unused notches	1
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	7.8%
WAL (cover pool)	10.4y	PCU	-
WAL (covered bonds)	2.7y	Recovery uplift	-
Fixed interest (cover pool)	30.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	47.5%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	44.6%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	НВ

Borrower Types

93.2%

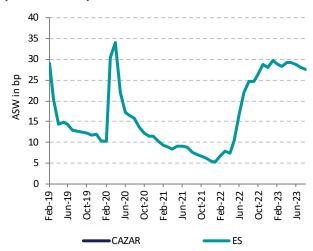
■Commercial ■ Multi-family

Regional Distribution

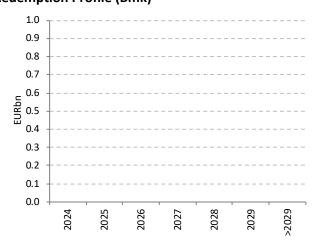


Spread Development

■ Residential



Redemption Profile (Bmk)





Kutxabank

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Spain



2023Q1

Ratings

Kutxabank, S.A.

	Rating	Outlook
Fitch	BBB+	Stable
Moody's*	A3	Stable
S&P	=	-

Homepage

www.kutxabank.com

* LT Bank Deposits LC

Headquartered in Bilbao, Kutxabank S.A. (Kutxa) is a leading commercial bank in the Basque Country with total assets of EUR 66.6bn (data as at FY 2022). It was formed in 2012 from the merger of three Basque savings banks. Kutxa operates as the parent company of the Kutxabank Group and is owned by the following three foundations: Bilbao Bizkaia Kutxa Fundacion Bancaria (57%), Fundacion Bancaria Kutxa (32%) and Fundacion Bancaria Vital (11%; FY 2022). On its domestic market, the Basque Country, the bank boasts market shares amounting to 29% for loans and 35% for customer deposits (Q2 2022). It is also active in the Andalusia and Cordoba regions via its wholly owned subsidiary CajaSur Banco, S.A. In the Cordoba region, market penetration stands at 25% for loans and 38% for deposits. The bank employs around 5,000 staff and serves around 2.3 million customers across more than 700 branches (FY 2022). The group divides its business into the following operating segments: Kutxabank Subgroup (FY 2022: 71% of pre-tax profit), CajaSur Banco Subgroup (10%), Insurance Companies (16%), Asset Management Companies (18%) and Other Business Activities (-16%). The services provided by the bank are focused on retail customers and SMEs, as well as property developers and their investments. A total of 70% of the loan portfolio consists of loans to private individuals. The funding mix is composed of deposits (96%), in addition to central bank liquidity and capital market funding (6%). As part of its sustainability goals, the bank issued its first green bond in October 2021 and in 2022, it provided financing in the amount of EUR 2.4bn for sustainable products such as green mortgages and loans.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	47,516	46,627	46,207
Total Securities	8,195	9,224	9,580
Total Deposits	47,945	49,293	48,782
Tier 1 Common Capital	5,335	5,265	5,222
Total Assets	65,805	66,588	66,708
Total Risk-weighted Assets	30,171	29,899	29,843

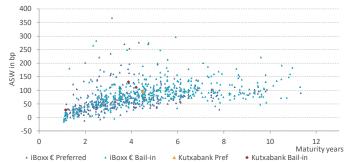
Income Statement 2021Y 2022Y Net Interest Income 559 641

Net Interest Income	559	641	235
Net Fee & Commission Inc.	471	477	119
Net Trading Income	2	48	2
Operating Expense	703	670	168
Credit Commit. Impairment	71	63	19
Pre-tax Profit	295	457	159

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.92	1.03	1.49	Liquidity Coverage Ratio	233.21	233.48	213.18
ROAE	3.46	5.34	7.09	IFRS Tier 1 Leverage Ratio	8.22	8.01	-
Cost-to-Income	59.69	51.42	48.38	NPL/Loans at Amortised Cost	1.93	1.42	1.45
Core Tier 1 Ratio	17.68	17.61	17.50	Reserves/Loans at Amort. Cost	1.49	1.43	-

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Regional franchise
- Capitalisation
- NPL ratio in comparison with peers

- Equity participations (market risk)
- Profitability
- Geographical diversification in a peer comparison



Kutxabank – Mortgage

Spain

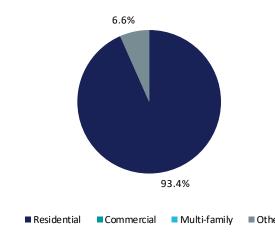


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

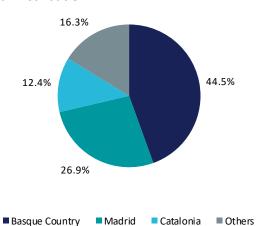
Cover Pool Data

Cover pool volume (EURm)	2,123	Rating (Moody's)	Aa1
Amount outstanding (EURm)	1,250	Rating (S&P)	-
-thereof ≥ EUR 500m	80.0%	Rating (Fitch)	-
Current OC (nominal)	69.8%	Rating (DBRS)	AAA
Committed OC	5.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	2
Main country	100% Spain	Collateral score	5.0%
Main region	44% Basque Country	RRL	-
Number of loans	15,842	JRL	-
Number of borrowers	25,290	Unused notches	-
Avg. exposure to borrowers (EUR)	78,377	AAA credit risk (%)	-
WAL (cover pool)	8.8y	PCU	-
WAL (covered bonds)	2.4y	Recovery uplift	-
Fixed interest (cover pool)	54.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	54.0%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

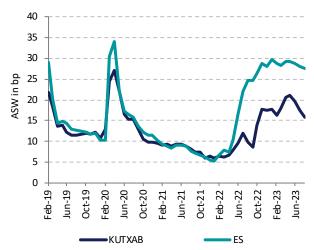
Borrower Types



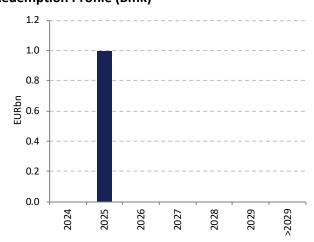
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Unicaja Banco

Spain



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Unicaja Banco, S.A.

	Rating	Outlook
Fitch	BBB-	Stable
Moody's*	Baa3	Stable
S&P	-	-

Homepage

www.unicajabanco.com

* LT Bank Deposits

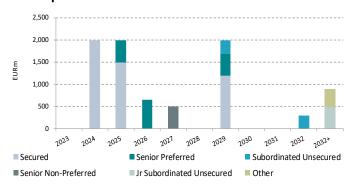
Headquartered in Malaga in the south of Spain, Unicaja Banco (Unicaja) is Spain's sixthlargest bank as measured by total assets (FY 2022: EUR 99bn). The bank is listed on the stock exchanges in Madrid, Bilbao, Barcelona and Valencia, and its largest shareholder is Fundacion Bancaria Unicaja with a stake of 30% (data as at 29 June 2023). Unicaja employs around 7,900 staff, who serve approximately 4.2 million customers across roughly 970 branches. Its business activities take place exclusively in Spain, with a focus on the following autonomous communities: Andalusia, Asturias, Cantabria, Castile and Leon, Castile-La Mancha, Extremadura and Madrid. On a national level, the group has a market share of 5% for customer deposits and 4% for loans. The business activities of Unicaja are mainly focused on retail banking, with private individuals and SMEs at the forefront. It also serves larger businesses via the Corporate Banking business segment. The bank offers its customers all the services of a universal bank. In 2021, the takeover of Liberbank by Unicaja took legal effect, while the technical and operating integration was finalised in 2022. The majority of the loan portfolio consists of private mortgage and corporate loans (60% and 24% respectively), with loans to the public sector (11%) and consumer credit (5%) rounding off the portfolio. In geographical terms, the loan portfolio (FY 2022) is focused on the following areas: Madrid (35%), Andalusia (30%) and Castile (16%). In 2022, the bank issued its first two green bonds, each of which featured an issuance volume of EUR 500m.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	56,157	54,439	52,792
Total Securities	27,200	29,564	28,152
Total Deposits	84,154	74,386	74,095
Tier 1 Common Capital	4,802	4,659	4,501
Total Assets	115,550	99,003	97,259
Total Risk-weighted Assets	35,291	34,133	31,916

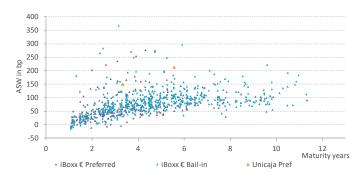
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	730	1,058	616
Net Fee & Commission Inc.	362	525	269
Net Trading Income	52	57	8
Operating Expense	777	956	491
Credit Commit. Impairment	182	215	74
Pre-tax Profit	1.021	361	223

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.96	1.04	1.33	Liquidity Coverage Ratio	298.20	294.50	284.00
ROAE	23.36	4.10	4.63	IFRS Tier 1 Leverage Ratio	4.20	4.76	4.69
Cost-to-Income	70.16	59.03	60.88	NPL/Loans at Amortised Cost	3.50	3.57	3.65
Core Tier 1 Ratio	13.61	13.65	14.10	Reserves/Loans at Amort. Cost	2.38	2.34	2.34

 $Source: Bloomberg, S\&P\ Global\ Market\ Intelligence,\ NORD/LB\ Fixed\ Income\ Research; as\ of: 31.07.2023$

Strengths / Opportunities

- Funding profile
- Liberbank merger (synergy effects, franchise)
- Market position

- Profitability
- Capitalisation
- Problem loans



Unicaja Banco – Mortgage

Spain

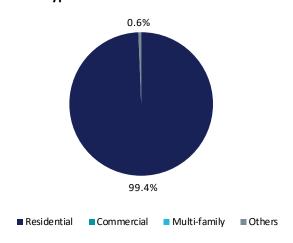


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

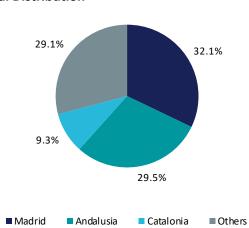
Cover Pool Data

Cover pool volume (EURm)	12,429	Rating (Moody's)	Aa1
Amount outstanding (EURm)	9,172	Rating (S&P)	-
-thereof ≥ EUR 500m	13.1%	Rating (Fitch)	-
Current OC (nominal)	35.5%	Rating (DBRS)	-
Committed OC	0.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	0
Main country	100% Spain	Collateral score	5.0%
Main region	32% Madrid	RRL	-
Number of loans	145,000	JRL	-
Number of borrowers	143,115	Unused notches	-
Avg. exposure to borrowers (EUR)	86,298	AAA credit risk (%)	-
WAL (cover pool)	12.1y	PCU	-
WAL (covered bonds)	3.9y	Recovery uplift	-
Fixed interest (cover pool)	62.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	61.8%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	60.3%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	НВ

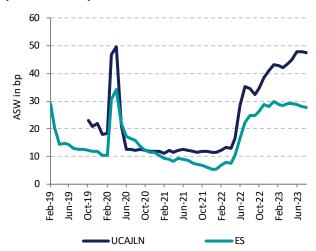
Borrower Types



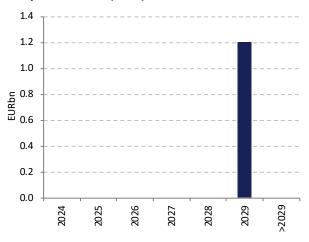
Regional Distribution



Spread Development



Redemption Profile (Bmk)





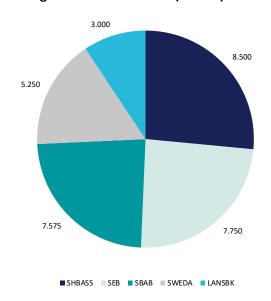
Market Overview Covered Bonds

Sweden **!**

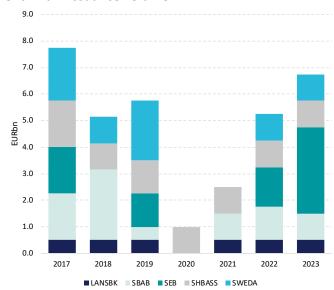
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 277.69bn	Outstanding volume (Bmk)	EUR 32.08bn
Amount outstanding	EUR 165.40bn	Number of benchmarks	36
Number of issuer	5	Outstanding ESG volume (Bmk)	EUR 1.00bn
No of cover pools	6	Number of ESG benchmarks	1
there of M / PS / others	6/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 1	Maturity types	HB, SB

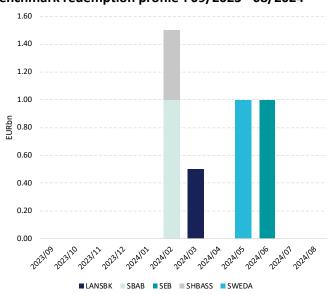
Outstanding benchmark volume¹ (EURbn)



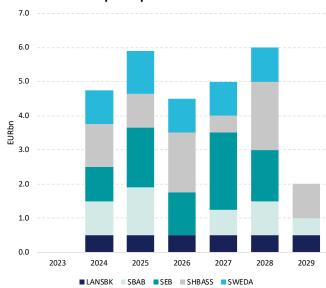
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12





LF Bank

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Sweden :



Ratings

Lansforsakringar Bank AB

ng Outlook
-
1 Stable
Stable

Homepage

www.lansforsakringar.se

According to Länsförsäkringar Bank (LF Bank) it is one of the largest retail banks in Sweden. It is a wholly owned subsidiary and the banking arm of Länsförsäkringar AB (LF AB). In turn, LF AB is owned by 23 customer-owned regional insurance companies. Collectively, LF AB and the 23 insurers form the Länsförsäkringar Alliance. LF Bank has a market share in Sweden of 5.1% and 7.1% for retail customer deposits and private property loans respectively (FY 2022). LF Bank reports in the following segments: Banking Operations (BO), Mortgage Institution (MI), Finance Company (FC), Mutual Funds (MF) and Eliminations/Adjustments. MI, FC and MF are organised as separate subsidiaries: Länsförsäkringar Hypotek, Wasa Kredit and Länsförsäkringar Fondförvaltning. In FY 2022, operating earnings fell by 10% to SEK 2,067m (FY 2021: SEK 2,296m). The main funding sources of LF Bank are covered bonds (FY 2022: 49%), deposits (34%) and senior unsecured bonds (10%). At the end of 2022, LF Bank introduced a set of criteria for its own investments. This stipulates, for example, that only a maximum of 5% of investments can be made in oil and gas extraction and only a maximum of 5% of investments can be made in companies in the coal and tobacco industries, also no investments may be made in controversial weapons. On 13 December 2022, the Swedish FSA (Financial Supervisory Authority) issued LF Bank a penalty of SEK 90m. This was due to failures in complying with money laundering guidelines. According to the bank, it is currently working on introducing a new system that will conform to these guidelines.

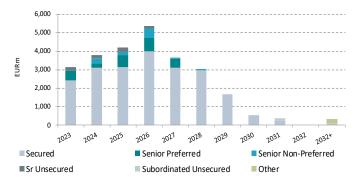
Bal	ance	Sheet
(FII	IRm)	

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	35,202	34,479	33,272
Total Securities	6,893	5,764	7,479
Total Deposits	14,223	13,764	12,999
Tier 1 Common Capital	1,724	1,658	1,585
Total Assets	43,876	41,043	41,081
Total Risk-weighted Assets	11.300	10.764	10.749

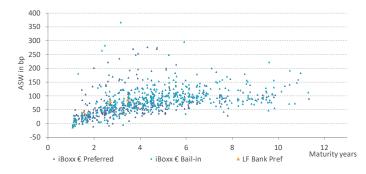
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	479	520	310
Net Fee & Commission Inc.	-33	-48	-82
Net Trading Income	5	0	2
Operating Expense	231	259	130
Credit Commit. Impairment	-33	12	2
Pre-tax Profit	226	194	100

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.14	1.21	1.51	Liquidity Coverage Ratio	306.26	288.11	296.95
ROAE	8.90	7.47	7.98	IFRS Tier 1 Leverage Ratio	3.95	-	-
Cost-to-Income	50.74	54.71	56.16	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	15.26	15.40	14.75	Reserves/Loans at Amort. Cost	0.15	0.14	0.11

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Integration in the group
- Capitalisation
- Loan quality

- Dependency on capital market funding
- Concentration risks (mortgages)
- Low market penetration in nationwide peer compari-

^{*} Senior Unsecured/LT Bank Deposits



LF Hypotek – Mortgage

Sweden ==

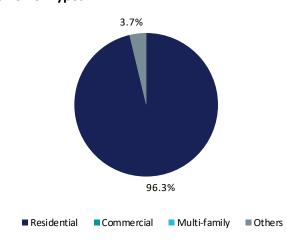


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

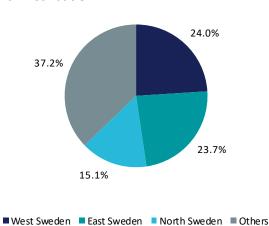
Cover Pool Data

Cover pool volume (EURm)	24,905	Rating (Moody's)	Aaa
Amount outstanding (EURm)	18,957	Rating (S&P)	AAA
-thereof ≥ EUR 500m	15.8%	Rating (Fitch)	-
Current OC (nominal)	31.4%	Rating (DBRS)	-
Committed OC	10.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Sweden	Collateral score	5.0%
Main region	24% West Sweden	RRL	aa-
Number of loans	439,774	JRL	aaa
Number of borrowers	195,388	Unused notches	2
Avg. exposure to borrowers (EUR)	122,699	AAA credit risk (%)	6.2%
WAL (cover pool)	26.1y	PCU	-
WAL (covered bonds)	3.1y	Recovery uplift	-
Fixed interest (cover pool)	40.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	94.6%	LCR eligible	Yes
LTV (indexed)	58.0%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	HB & SB

Borrower Types



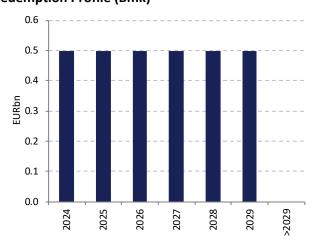
Regional Distribution



Spread Development



Redemption Profile (Bmk)





SBAB

Sweden :



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

SBAB Bank AB

	Rating	Outlook
Fitch	-	-
Moody's	A1	Stable
S&P	A+	Stable

Homepage

www.sbab.se

SBAB Bank AB (SBAB) was founded in 1985 by the Swedish government to finance state mortgages and continues to be wholly owned by the Swedish state. Today, in addition to its core business of real estate loans, SBAB also offers savings products and personal loans in the retail customer sector and brokers insurance policies. In the corporate sector, SBAB offers services in the areas of savings and housing finance for property companies and home owners' associations. Unlike other banks, SBAB does not have a traditional branch network. Instead, it offers its products via the internet and call centres. SBAB reports in the operative business segments Private and Corporate Clients & Tenant-Owners' Associations. SBAB is the fifth largest bank in Sweden for residential property financing with a market share of 8.5% (Q1 2023). The bank has a market share of 17.4% in corporate financing. Approximately 68.3% (SEK 350.2bn) of the total loan portfolio has been issued in the private mortgage sector, further emphasising the focus on mortgage loans. The bank's funding is principally made up of covered bonds (Q1 2023: 57%,) and deposits (30%). In December 2022, SBAB announced a new long-term climate target: to reduce by 50% the CO₂ emissions in the loan mix by 2038. This strategy is in line with the global target of 1.5°C. In addition, by the end of 2022, SBAB had issued green bonds with a total volume of approximately SEK 36bn.

Balance	Sheet
---------	-------

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	45,417	45,734	43,647
Total Securities	7,698	8,831	9,183
Total Deposits	14,096	16,377	16,385
Tier 1 Common Capital	1,829	1,767	1,690
Total Assets	54,295	56,954	55,139
Total Risk-weighted Assets	13.505	13.837	14.203

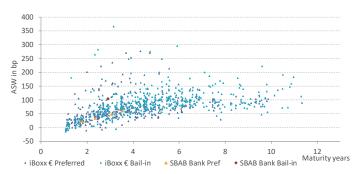
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	406	438	247
Net Fee & Commission Inc.	3	1	-1
Net Trading Income	-7	-3	4
Operating Expense	144	182	96
Credit Commit. Impairment	-1	6	5
Pre-tax Profit	260	248	151

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.77	0.78	0.86	Liquidity Coverage Ratio	232.46	219.02	243.01
ROAE	8.34	9.55	13.16	IFRS Tier 1 Leverage Ratio	3.39	3.23	3.19
Cost-to-Income	35.47	41.32	37.99	NPL/Loans at Amortised Cost	0.05	0.07	0.10
Core Tier 1 Ratio	13.55	12.77	11.90	Reserves/Loans at Amort. Cost	0.03	0.04	0.04

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Capitalisation
- Cost ratio

- Dependency on capital market funding
- Credit concentration risks
- Product diversification



SBAB – Mortgage

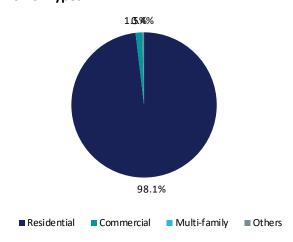
Sweden ==

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

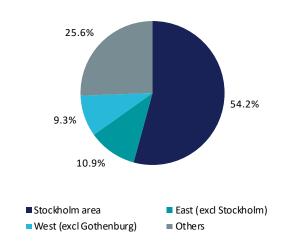
Cover Pool Data

Cover pool volume (EURm)	38,425	Rating (Moody's)	Aaa
Amount outstanding (EURm)	29,226	Rating (S&P)	-
-thereof ≥ EUR 500m	25.9%	Rating (Fitch)	-
Current OC (nominal)	31.5%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Sweden	Collateral score	5.4%
Main region	54% Stockholm area	RRL	-
Number of loans	475,373	JRL	-
Number of borrowers	186,966	Unused notches	-
Avg. exposure to borrowers (EUR)	204,910	AAA credit risk (%)	-
WAL (cover pool)	19.5y	PCU	-
WAL (covered bonds)	3.8y	Recovery uplift	-
Fixed interest (cover pool)	43.8%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	98.4%	LCR eligible	Yes
LTV (indexed)	-	LCR level (Bmk)	1
LTV (unindexed)	54.7%	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



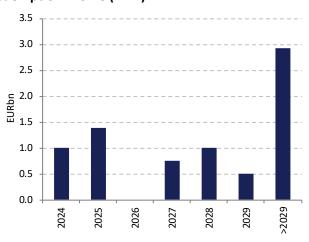
Regional Distribution



Spread Development



Redemption Profile (Bmk)





SFB

Sweden :



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Skandinaviska Enskilda Banken AB

	Rating	Outlool
Fitch	AA-	Stable
Moody's	Aa3	Stable
S&P	A+	Stable

Homepage

www.sebgroup.com

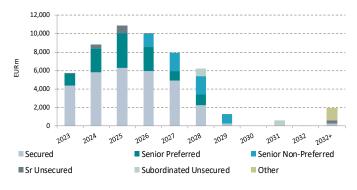
SEB Group consists of Skandinaviska Enskilda Banken AB (SEB) and its subsidiaries. It has 16,500 employees, who serve approximately 4 million retail customers, 400,000 SMEs and 3,100 large corporations and financial institutes across more than 20 countries. SEB is listed on the Stockholm stock exchange. Its largest shareholder is Investor AB (09 May 2023: 21.2%), followed by Alecta (5.8%). Strategically, SEB is focussed on the business with large corporations, although it also serves retail customers and SMEs. In Sweden, for example, SEB has a market share in corporate loans of 17.4% (FY 2022) and market penetration in corporate deposits of 24.1%. For private individuals, the share in the domestic market stands at 12.3% (loans) and 11.3% (deposits). SEB also has equally high, or even higher market shares (retail and commercial) in Estonia, Latvia and Lithuania. With 61%, Sweden is its most important market in terms of operating income (as at FY 2022). Corporate loans and private mortgages account for the largest shares of the loan portfolio at 55% and 22% respectively (Q1 2023). The main funding components include corporate deposits (Q1 2023: 44%), deposits by retail customers (16%), covered bonds (12%) and CP/CDs (15%). The Group aims to ensure that its loan portfolio is carbon neutral by 2050. For example, SEB has set itself the interim target of reducing the loan portfolio's CO₂ emissions by approximately 45% to 60% by 2030 in comparison with 2019. As at FY 2022, SEB has already reduced its CO₂ emissions by 17% as against 2019. Furthermore, SEB has green bonds outstanding of approximately SEK 22.2bn as at the end of 2022.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	179,549	185,386	181,912
Total Securities	44,027	45,680	56,968
Total Deposits	155,344	152,750	167,988
Tier 1 Common Capital	15,056	14,628	14,498
Total Assets	321,319	317,115	354,239
Total Risk-weighted Assets	76,579	77,136	75,137

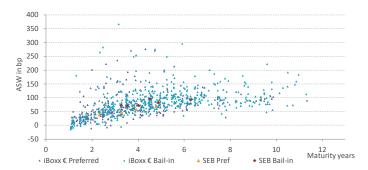
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	2,572	3,147	2,045
Net Fee & Commission Inc.	2,084	2,026	954
Net Trading Income	658	-	-
Operating Expense	2,361	2,541	1,328
Credit Commit. Impairment	50	321	28
Pre-tax Profit	3.042	3.175	2.093

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.88	0.98	1.38	Liquidity Coverage Ratio	144.66	143.54	129.13
ROAE	13.88	13.87	18.26	IFRS Tier 1 Leverage Ratio	4.87	4.97	-
Cost-to-Income	43.04	41.87	38.51	NPL/Loans at Amortised Cost	0.60	0.38	-
Core Tier 1 Ratio	19.66	18.96	19.30	Reserves/Loans at Amort, Cost	0.46	0.39	_

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in the Nordic countries
- Loan quality
- Capitalisation

- Funding profile
- Concentration risk in corporate loans
- Residential real estate market in Sweden



SEB – Mortgage

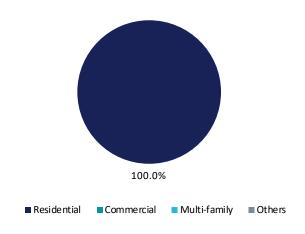
Sweden ==

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

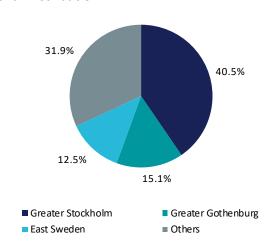
Cover Pool Data

Cover pool volume (EURm)	59,989	Rating (Moody's)	Aaa
Amount outstanding (EURm)	31,292	Rating (S&P)	-
-thereof ≥ EUR 500m	24.8%	Rating (Fitch)	-
Current OC (nominal)	91.7%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	5
Main country	100% Sweden	Collateral score	5.0%
Main region	40% Greater Stockholm	RRL	-
Number of loans	752,565	JRL	-
Number of borrowers	418,660	Unused notches	-
Avg. exposure to borrowers (EUR)	143,287	AAA credit risk (%)	-
WAL (cover pool)	25.2y	PCU	-
WAL (covered bonds)	2.8y	Recovery uplift	-
Fixed interest (cover pool)	39.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	50.8%	LCR level (Bmk)	1
LTV (unindexed)	54.1%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	HB & SB

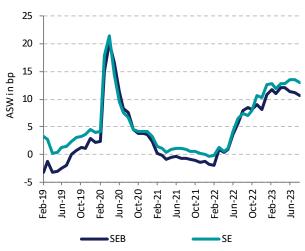
Borrower Types



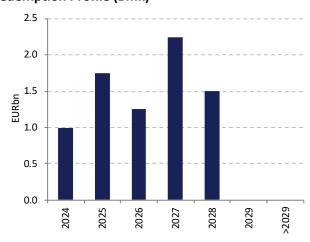
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Svenska Handelsbanken

Sweden -



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Svenska Handelsbanken AB

	Rating	Outlook
Fitch	AA	Stable
Moody's	Aa2	Negative
S&P	AA-	Stable

Homepage

www.handelsbanken.com

Established in 1871, Svenska Handelsbanken (HB) is a universal bank with around 11,000 employees (FY 2022). Its shares are listed on the Stockholm stock exchange. The Bank's main shareholders are the Swedish investment company Industrivärden (09 May 2023: 11.4%) and the Oktogonen Foundation (8.3%). The domestic markets defined by HB are Sweden (Q1 2023: 72.7% of operating income), the UK (17.6%), Norway (7.3%) and the Netherlands (2.9%). Along with Capital Markets, Others and Adjustments and Eliminations, the four domestic markets constitute the seven operational segments of HB. In financial year 2021, HB announced its withdrawal from the markets in Finland and Denmark. After their sale in Q4 2022, the Danish business activities were successfully transferred to Jyske Bank A/S, while the strategic withdrawal from Finland continues to go ahead as planned. The funding of HB mainly comprises covered bonds (Q1 2023: 41.8% of capital market funding) as well as bonds with an original term to maturity of less than one year (39.6%) and more than one year (13.2%). All covered bonds have been issued by its wholly owned subsidiary Stadshypotek. Over the long term, HB plans to ensure that its loan portfolio, investments and consultancy services are carbon neutral by 2040. Additionally, HB announced in Q4 2022 that it intends to reduce its CO₂ emissions in housing financing by 36% by 2030. Furthermore, the proportion of green, social and sustainable investments is set to grow to at least 20% of the total funding volume by 2025.

Balance Sheet

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	210,354	207,876	198,338
Total Securities	17,498	17,767	32,769
Total Deposits	125,119	118,392	121,743
Tier 1 Common Capital	14,558	14,232	14,095
Total Assets	325,455	310,018	318,861
Total Risk-weighted Assets	75,186	72,721	71,110

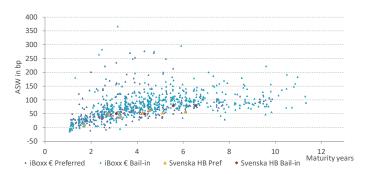
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	2,989	3,446	2,045
Net Fee & Commission Inc.	1,129	1,033	488
Net Trading Income	167	145	88
Operating Expense	2,008	2,174	1,104
Credit Commit. Impairment	4	4	8
Pre-tax Profit	2,314	2,525	1,532

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	0.98	1.22	1.48	Liquidity Coverage Ratio	152.04	163.17	187.93
ROAE	10.97	11.76	14.65	IFRS Tier 1 Leverage Ratio	4.50	4.64	4.46
Cost-to-Income	46.43	46.82	41.71	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	19.36	19.57	19.82	Reserves/Loans at Amort, Cost	0.11	0.11	0.11

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in core markets
- Asset quality
- Capitalisation

- Dependency on capital market funding
- Concentration risks in lending business
- Residential real estate market in Sweden



Stadshypotek - Mortgage (Swedish Pool)

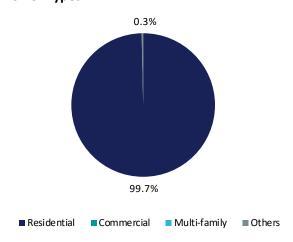
Sweden ==

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

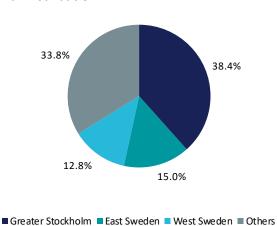
Cover Pool Data

Cover pool volume (EURm)	55,622	Rating (Moody's)	Aaa
Amount outstanding (EURm)	50,107	Rating (S&P)	-
-thereof ≥ EUR 500m	10.0%	Rating (Fitch)	-
Current OC (nominal)	11.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	6
Main country	100% Sweden	Collateral score	5.0%
Main region	38% Greater Stockholm	RRL	-
Number of loans	839,948	JRL	-
Number of borrowers	345,876	Unused notches	-
Avg. exposure to borrowers (EUR)	160,768	AAA credit risk (%)	-
WAL (cover pool)	28.9y	PCU	-
WAL (covered bonds)	3.0y	Recovery uplift	-
Fixed interest (cover pool)	53.0%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	94.2%	LCR eligible	Yes
LTV (indexed)	52.4%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



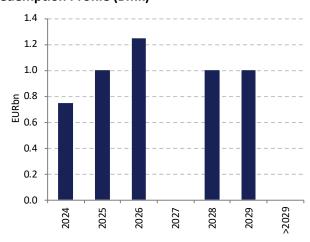
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Stadshypotek – Mortgage (Norwegian Pool)

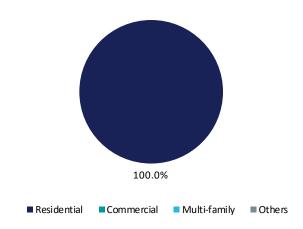
Sweden ==

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

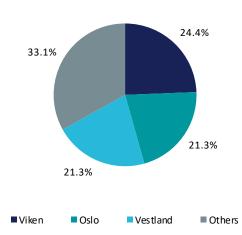
Cover Pool Data

Cover pool volume (EURm)	5,739	Rating (Moody's)	Aaa
Amount outstanding (EURm)	5,217	Rating (S&P)	-
-thereof ≥ EUR 500m	67.1%	Rating (Fitch)	-
Current OC (nominal)	10.0%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	6
Main country	100% Norway	Collateral score	5.0%
Main region	24% Viken	RRL	-
Number of loans	24,027	JRL	-
Number of borrowers	20,694	Unused notches	-
Avg. exposure to borrowers (EUR)	277,321	AAA credit risk (%)	-
WAL (cover pool)	23.4y	PCU	-
WAL (covered bonds)	4.1y	Recovery uplift	-
Fixed interest (cover pool)	6.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	68.9%	LCR eligible	Yes
LTV (indexed)	57.2%	LCR level (Bmk)	1
LTV (unindexed)	-	Risk weight	10%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types



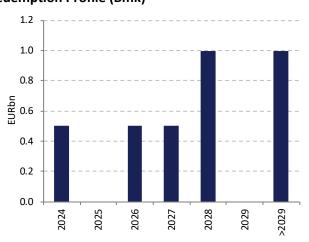
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Swedbank

Sweden :



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Swedbank AB

	Rating	Outlook
Fitch	AA-	Stable
Moody's	Aa3	Stable
S&P	A+	Stable

Homepage

www.swedbank.com

As measured by assets (FY 2022), Swedbank AB is one of the three largest banks in Sweden, serving 7 million retail customers and 550,000 corporate customers. Sweden is the largest market at around 85% of the loan portfolio (Q1 2023). In addition, Swedbank is the market leader in the banking business and fund management in Estonia, Latvia and Lithuania, which it counts among its domestic markets. The largest shareholder is the Sparbanksgruppen, which holds a stake of 11.4% (09 May 2023), followed by Folksam (6.9%). The market share in Sweden for deposits from retail customers stands at 18% (28 February 2023). Swedbank divides its business into the operational segments Swedish Banking, Baltic Banking, Large Corporates & Institutions and Group Functions & Other. The US authorities are continuing to investigate the historic activities of Swedbank in order to combat money laundering and the funding of terrorism. In Q1 2022, the Estonian Public Prosicutor also opened investigations regarding money laundering in the years 2014-2016. These investigations are follow-up investigations of the Estonian FSA from 2019. On 15 March 2023, Swedbank was issued with a fine of SEK 850m by the Swedish FSA due to an "IT incident" in which customers were given incorrect account balances. Swedbank plans to become carbon neutral by 2050 and has defined various interim targets to this end in its sustainability report. By 2040, capital managed by Swedbank Robur is set to comprise exclusively carbon neutral investments. In 2022, in comparison with the previous year, the volume of sustainable funding increased by 30% to SEK 73bn.

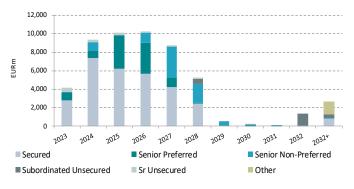
Ва	lance	Sheet	
(EL	JRm)		

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	165,628	165,417	157,709
Total Securities	26,633	22,540	33,747
Total Deposits	123,091	117,227	110,656
Tier 1 Common Capital	12,607	12,936	12,949
Total Assets	267,483	256,264	259,002
Total Risk-weighted Assets	68,825	72,658	69,540

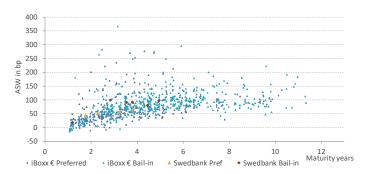
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	2,666	3,120	2,180
Net Fee & Commission Inc.	1,464	1,338	659
Net Trading Income	176	166	114
Operating Expense	2,133	2,180	1,190
Credit Commit. Impairment	17	139	85
Pre-tax Profit	2,545	2,574	1,861

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.07	1.30	1.87	Liquidity Coverage Ratio	162.71	159.95	167.30
ROAE	13.12	13.38	18.86	IFRS Tier 1 Leverage Ratio	4.80	5.21	5.12
Cost-to-Income	45.38	43.53	37.93	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	18.32	17.80	18.62	Reserves/Loans at Amort. Cost	0.30	0.33	0.39

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in Sweden and the Baltic
- **Profitability**
- Cost efficiency through digitisation

- Dependency on capital market funding
- Legal risks (possible fines, reputational damage)
- Risks on the Swedish housing market



Swedbank - Mortgage

Sweden ==

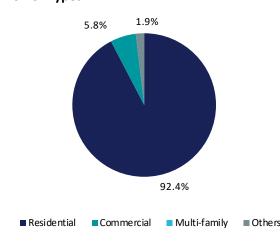


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

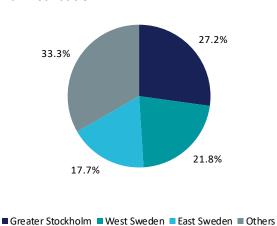
Cover Pool Data

Cover pool volume (EURm)	93,006	Rating (Moody's)	Aaa
Amount outstanding (EURm)	30,605	Rating (S&P)	AAA
-thereof ≥ EUR 500m	17.2%	Rating (Fitch)	-
Current OC (nominal)	203.9%	Rating (DBRS)	-
Committed OC	2.0%	TPI	Probable-High
Cover type	Mortgage	TPI leeway	4
Main country	100% Sweden	Collateral score	5.6%
Main region	27% Greater Stockholm	RRL	aa
Number of loans	1,620,887	JRL	aaa
Number of borrowers	990,874	Unused notches	3
Avg. exposure to borrowers (EUR)	92,370	AAA credit risk (%)	2.5%
WAL (cover pool)	25.6y	PCU	-
WAL (covered bonds)	2.8y	Recovery uplift	-
Fixed interest (cover pool)	50.9%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	94.8%	LCR eligible	Yes
LTV (indexed)	52.5%	LCR level (Bmk)	1
LTV (unindexed)	55.4%	Risk weight	10%
Loans in arrears	0.1%	Maturity structure (Bmk)	HB & SB

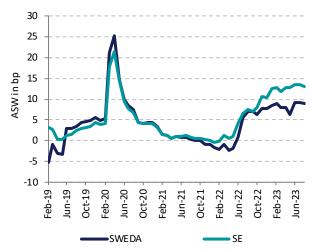
Borrower Types



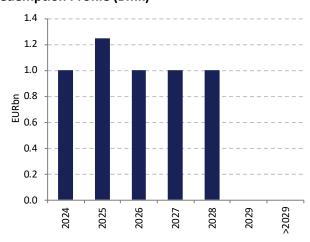
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Market Overview Covered Bonds

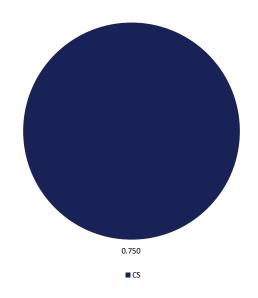
Switzerland



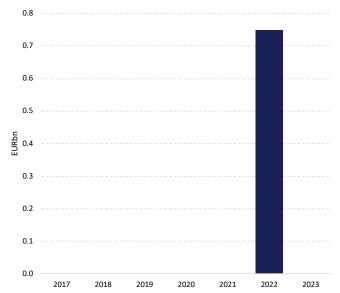
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 14.27bn	Outstanding volume (Bmk)	EUR 0.75bn
Amount outstanding	EUR 12.73bn	Number of benchmarks	1
Number of issuer	1	Outstanding ESG volume (Bmk)	-
No of cover pools	1	Number of ESG benchmarks	-
there of M / PS / others	1/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Not eligible	Maturity types	SB

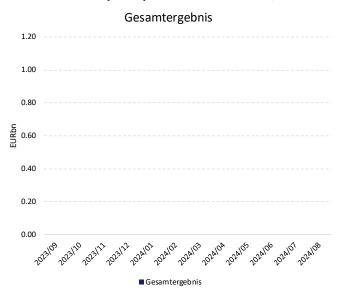
Outstanding benchmark volume¹ (EURbn)



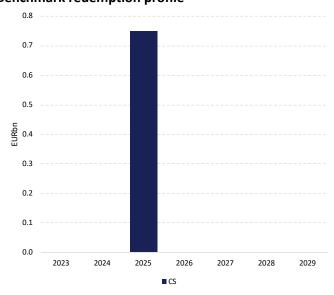
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12





UBS Group

Switzerland



Analysts: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

UBS Group AG

	Rating	Outlook
Fitch	Α	Stable
Moody's*	А3	Positive
S&P	A-	Negative

Homepage

www.ubs.com

* Senior Unsecured

UBS Group AG (UBS) is a global banking and financial services group and the holding company of the UBS Group as well as the parent company of the Swiss bank UBS AG. Headquartered in Zurich, the Group is classified as a global systemically important institution. It is the largest financial institution in Switzerland with total assets equivalent to EUR 1,026bn (FY 2022) and is listed on both the SIX Swiss Exchange and the New York Stock Exchange. UBS provides financial services to high net worth individuals, corporate and institutional clients worldwide in the areas of corporate banking, wealth management (WM), asset management and investment banking. In Switzerland, the bank is also active in private client business. UBS reports in Global Wealth Management (FY 2022: 52% of pre-tax profit), Personal & Corporate Banking (19%), Asset Management (15%), Investment Bank (20%), and Group Functions (-5%). The loan portfolio is predominantly composed of private mortgage loans (FY 2022: 40%) and Lombard loans (34%). Loans for real estate (12%), SMEs (4%) and large corporates (3%) represent other relevant shares. The volume of sustainable financing amounted to USD 268bn (FY 2022), which is expected to rise to USD 400bn by 2025. In June 2023, UBS formally closed the acquisition of Credit Suisse (purchase price equivalent to EUR 3.1bn). Credit Suisse (total assets FY2022: EUR 726bn) had previously suffered a crisis of confidence. By withdrawing client funds, the government wanted to prevent it from collapsing.

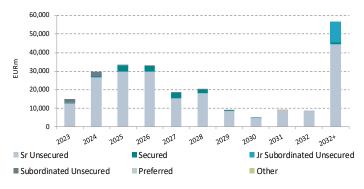
Balance Sheet

(EURm)	2021Y	2022Y	2023Q1
Net Loans to Customers	362,259	371,744	368,807
Total Securities	402,048	452,528	417,348
Total Deposits	476,587	491,290	465,337
Tier 1 Common Capital	39,816	42,534	41,041
Total Assets	982,338	1,033,353	969,305
Total Risk-weighted Assets	265,732	299,036	296,056

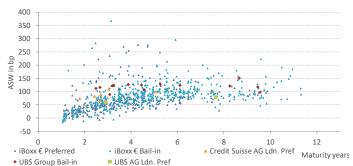
Income Statement

(EURm)	2021Y	2022Y	2023Q1
Net Interest Income	5,672	6,299	1,294
Net Fee & Commission Inc.	18,938	18,043	4,293
Net Trading Income	5,685	7,150	2,499
Operating Expense	21,854	23,668	6,721
Credit Commit. Impairment	-125	28	35
Pre-tax Profit	8.023	9.136	1.394

Redemption Profile



Senior Unsecured Bonds



Company Ratios

	2021Y	2022Y	2023Q1		2021Y	2022Y	2023Q1
Net Interest Margin	0.63	0.61	0.53	Liquidity Coverage Ratio	155.22	163.45	161.94
ROAE	12.56	13.23	7.26	IFRS Tier 1 Leverage Ratio	4.58	4.82	4.79
Cost-to-Income	72.01	74.58	82.46	NPL/Loans at Amortised Cost	0.59	0.60	-
Core Tier 1 Ratio	14.98	14.22	13.86	Reserves/Loans at Amort. Cost	0.23	0.21	0.22

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Market position (home market) and globally (WM)
- Risk management

- Risks related to integration of Credit Suisse
- Profitability
- Komplexity of capital market activities



Credit Suisse – Mortgage

Switzerland

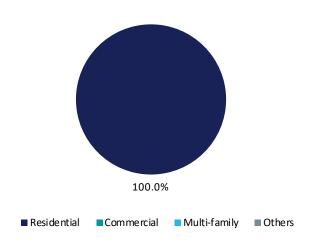


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

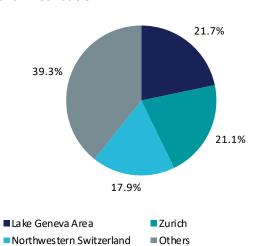
Cover	Pool	Data
CUVEI	F UU	ı Data

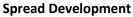
Cover pool volume (EURm)	14,269	Rating (Moody's)	-
Amount outstanding (EURm)	12,730	Rating (S&P)	-
-thereof ≥ EUR 500m	5.9%	Rating (Fitch)	AAA
Current OC (nominal)	14.5%	Rating (DBRS)	-
Committed OC	-	TPI	-
Cover type	Mortgage	TPI leeway	-
Main country	100% Switzerland	Collateral score	-
Main region	22% Lake Geneva Area	RRL	-
Number of loans	36,657	JRL	-
Number of borrowers	23,172	Unused notches	-
Avg. exposure to borrowers (EUR)	615,791	AAA credit risk (%)	-
WAL (cover pool)	3.9y	PCU	4
WAL (covered bonds)	3.3y	Recovery uplift	2
Fixed interest (cover pool)	82.2%	CRD compliant	No
Fixed interest (covered bonds)	100.0%	LCR eligible	No
LTV (indexed)	-	LCR level (Bmk)	Not eligible
LTV (unindexed)	67.3%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

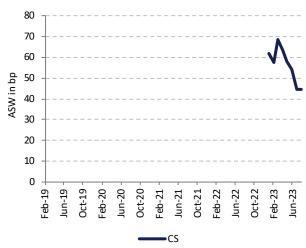
Borrower Types



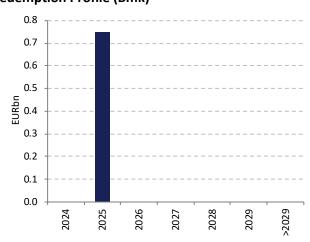
Regional Distribution







Redemption Profile (Bmk)





Market Overview Covered Bonds

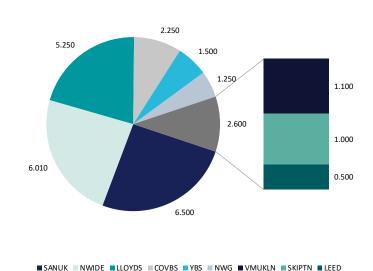
United Kingdom



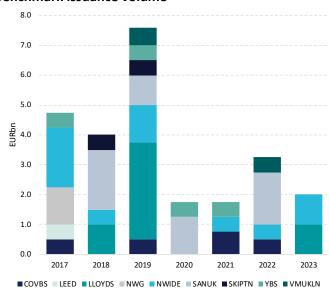
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover Pool Volume	EUR 127.84bn	Outstanding volume (Bmk)	EUR 25.36bn
Amount outstanding	EUR 75.22bn	Number of benchmarks	33
Number of issuer	9	Outstanding ESG volume (Bmk)	EUR 0.50bn
No of cover pools	9	Number of ESG benchmarks	1
there of M / PS / others	9/0/0	Outstanding volume (SBmk)	-
Ratings (low / high)	AAA / AAA	Number of subbenchmarks	-
Best possible LCR level	Level 2A	Maturity types	SB

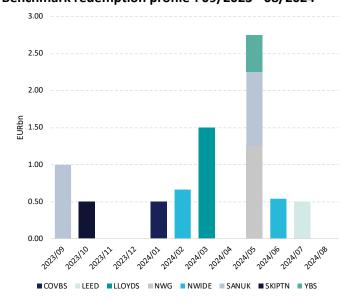
Outstanding benchmark volume¹ (EURbn)



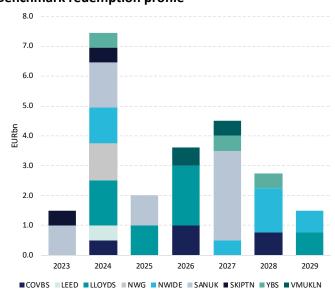
Benchmark issuance volume¹



Benchmark redemption profile¹: 09/2023 - 08/2024



Benchmark redemption profile12



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Markets Strategy & Floor Research; 1 based on Bloomberg ticker; 2 Redemptions 2023: 09/23 - 12/23



Coventry Building Society

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Coventry Building Society

	Rating	Outlook
Fitch	A-	Stable
Moody's*	A2	Stable
S&P	-	-

Homepage

www.coventrybuildingsociety.co.uk

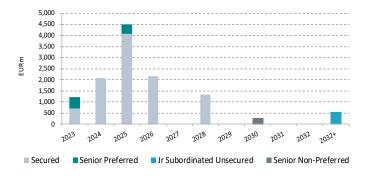
Coventry Building Society (CBS) is the second-largest building society in the UK as measured by total assets (FY 2022: GBP 58.9bn). The cooperative bank is regulated by the Prudential Regulation Authority and the Financial Conduct Authority. Around 2,800 CBS employees offer approximately 2 million customers a broad product range in the retail banking segment across a total of 64 branches and 15 agencies as well as via alternative sales channels. There is a pronounced focus on the mortgage and deposit business. Year-on-year increases were recorded in both the mortgage portfolio (+3%) and for customer deposits (+6%) in financial year 2022. The mortgage business (FY 2022) mainly consists of private housing loans (59%) and buy-to-let mortgages (41%). The majority of the mortgage portfolio is attributable to the south of England, with London (27% as at FY 2022) and south-east England (19%) forming particular focal points here, while the regions North (13%), East (12%) and Central England (14%) help to diversify the portfolio within the country. The lion's share of the overall funding mix comprises retail customer deposits (73%) and wholesale funding (23%). Covered bonds account for around 24% of wholesale funding (FY 2022), with central bank liquidity comprising the largest share. The central bank loans will gradually mature from 2024 to October 2025. Their repayment is to be replaced by the increase in retail customer deposits and new wholesale issuances. CBS has committed to cutting its emissions to net zero in line with the Climate Action Plan published in 2021.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	48,533	55,508	54,132
Total Securities	1,719	943	2,574
Total Deposits	43,263	48,226	48,152
Tier 1 Common Capital	1,991	2,291	2,448
Total Assets	57,479	64,924	66,368
Total Risk-weighted Assets	6,039	6,317	8,920

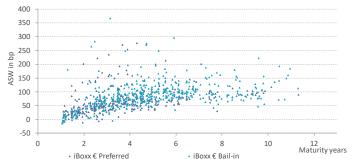
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	460	554	771
Net Fee & Commission Inc.	-3	-3	-4
Net Trading Income	-1	-8	31
Operating Expense	278	307	347
Credit Commit. Impairment	41	-33	19
Pro-tay Profit	140	271	435

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.81	0.90	1.16	Liquidity Coverage Ratio	204.40	182.83	220.23
ROAE	4.60	8.18	10.59	IFRS Tier 1 Leverage Ratio	3.51	3.54	3.70
Cost-to-Income	60.56	56.41	43.28	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	32.96	36.27	27.44	Reserves/Loans at Amort. Cost	0.11	0.04	0.07

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Capitalisation
- Liquidity

- Buy-to-let exposure
- Diversification
- Margin reduction

^{*} LT Bank Deposits



Coventry Building Society – Mortgage

United Kingdom

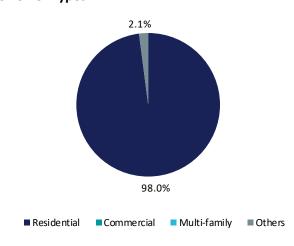


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

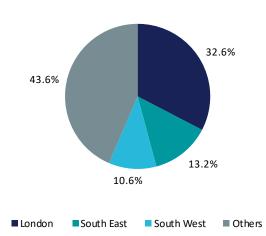
Cov	/er	Poo	Data

Cover pool volume (EURm)	8,451	Rating (Moody's)	Aaa
Amount outstanding (EURm)	5,534	Rating (S&P)	-
-thereof ≥ EUR 500m	40.7%	Rating (Fitch)	AAA
Current OC (nominal)	52.7%	Rating (DBRS)	-
Committed OC	11.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	33% London	RRL	-
Number of loans	52,116	JRL	-
Number of borrowers	53,546	Unused notches	-
Avg. exposure to borrowers (EUR)	154,612	AAA credit risk (%)	-
WAL (cover pool)	18.8y	PCU	6
WAL (covered bonds)	2.3y	Recovery uplift	1
Fixed interest (cover pool)	86.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	39.8%	LCR eligible	Yes
LTV (indexed)	44.2%	LCR level (Bmk)	Not eligible
LTV (unindexed)	49.6%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

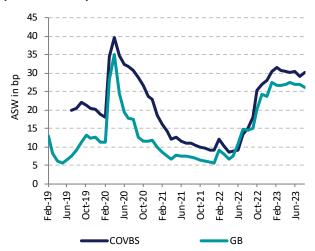
Borrower Types



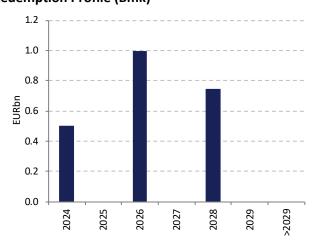
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Leeds Building Society

United Kingdom



2022Y

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Leeds Building Society

	Rating	Outlook
Fitch	A-	Stable
Moody's*	А3	Stable
S&P	-	-

Homepage

www.leedsbuildingsociety.uk

* LT Bank Deposits

Leeds Building Society (Leeds) is the fifth-largest building society in the UK with total assets of GBP 25.5bn (FY 2022). Leeds is owned by its members. It has around 839,000 customers, who are served across 50 branches in Yorkshire and the north of England, as well as via telephone and digital banking platforms. Leeds Building Society focuses on private mortgage lending and deposits in the UK. In FY 2022, the cooperative bank generated record pre-tax profit of GBP 220.5m (FY 2021: GBP 163.7m). Gross new lending amounted to GBP 5.0bn (FY 2022; FY 2021: GBP 4.4bn). The market share of new mortgage loans amounted to 1.6% in 2022, while the market share of all mortgages constituted 1.2%. The mortgage portfolio mostly comprises two main components: mortgages for owner-occupied properties (FY 2022: 46%) and buy-to-let residential mortgage loans (29%). More than half of the retail customer loan portfolio is covered by the following four regions of England: South East (15.2%), Midlands (14.7%), Greater London (13%) and South West (10%). The portfolio is supplemented by the countries Scotland (8.1%), Wales (3.6%) and Northern Ireland (2.8%). The funding mix comprises retail funding (77%) and wholesale funding (23%). The key components of the wholesale funding are covered bonds (42%) and central bank liquidity (TFSME - Bank of England refinancing scheme; 41% in FY 2022). In line with the goal of reaching net-zero CO2 emissions by 2050, the bank has set itself the target of reducing its Scope 1 and 2 emissions by 90% by 2030.

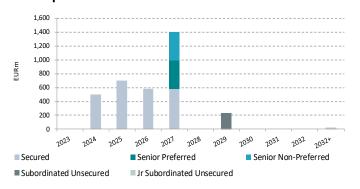
Income Statement

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	18,962	22,059	23,104
Total Securities	1,382	1,190	1,669
Total Deposits	16,094	18,521	20,012
Tier 1 Common Capital	1,245	1,463	1,565
Total Assets	23,037	26,805	28,765
Total Risk-weighted Assets	3,427	3,847	4,694

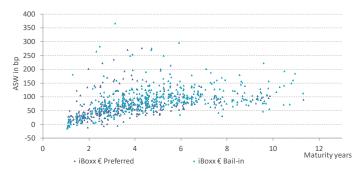
(EURm) 2020Y 2021Y

Net Interest Income	231	328	422
Net Fee & Commission Inc.	6	7	6
Net Trading Income	-19	-1	17
Operating Expense	114	148	165
Credit Commit. Impairment	16	-5	14
Pre-tax Profit	91	190	259

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	1.01	1.33	1.52	Liquidity Coverage Ratio	195.00	186.48	195.42
ROAE	5.53	9.90	11.64	IFRS Tier 1 Leverage Ratio	5.47	5.49	5.48
Cost-to-Income	51.58	44.39	37.30	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	36.34	38.03	33.34	Reserves/Loans at Amort. Cost	0.28	0.23	0.26

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Capitalisation
- Funding profile
- Cost efficiency

- Buy-to-let exposure
- Diversification of business activities
- Margin and competitive pressures



Leeds Building Society - Mortgage

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

C	D	Data
Cover	POO	ı vata

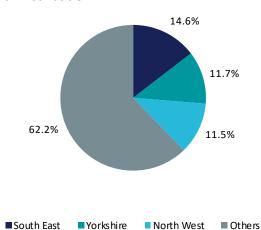
Cover pool volume (EURm)	3,799	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,603	Rating (S&P)	-
-thereof ≥ EUR 500m	19.2%	Rating (Fitch)	AAA
Current OC (nominal)	45.9%	Rating (DBRS)	-
Committed OC	27.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% United Kingdom	Collateral score	5.0%
Main region	15% South East	RRL	-
Number of loans	29,237	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	20.2y	PCU	6
WAL (covered bonds)	2.2y	Recovery uplift	1
Fixed interest (cover pool)	86.4%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	19.1%	LCR eligible	Yes
LTV (indexed)	48.7%	LCR level (Bmk)	Not eligible
LTV (unindexed)	59.3%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

Borrower Types

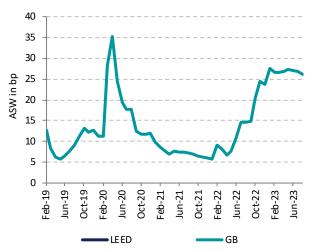


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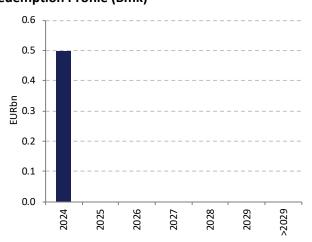
Regional Distribution



Spread Development



Redemption Profile (Bmk)





Lloyds Banking Group

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Lloyds Banking Group PLC

	Rating	Outlook
Fitch	Α	Stable
Moody's*	A3	Stable
S&P	BBB+	Stable

Homepage

www.lloydsbankinggroup.com

* Senior Unsecured

Lloyds Banking Group (LBG) operates as the holding company for its wholly owned subsidiary, Lloyds Bank, which is the key operating entity. As the UK's leading financial services group, LBG focuses on the retail and corporate banking business, as well as insurance products, asset management and pensions. The main shareholders in the Group (as at 31 December 2022) are BlackRock (5.1%) and Harris Associates (5.0%). In terms of structure, LGB is divided into the sub-groups Ring Fenced Banks (Lloyds Bank plc and Bank of Scotland plc, incl. Halifax and MBNA) and Non-Ring-Fenced Banks (Lloyds Bank Corporate Markets plc [LBCM]). The Insurance sub-group including the Scottish Widows Group Limited (SWG) and the Equity sub-group with LBG Equity Investments Limited (LBGE) supplement the group structure. The core business segments are Retail (FY 2022: 65.5% of operating income before valuation), Commercial Banking (26.6%), Insurance, Pensions and Investments (4.5%) and Equity Investments and Central Items (3.4%). The majority of the loan portfolio comprises mortgages (68%), followed by corporate loans (21%). The vast majority of wholesale funding consists of senior debt (45%), money market funding (25%) and covered bonds (14%). LBG has set itself the target of reducing its CO₂ emissions by at least 50% by 2030. Green loans granted in the mortgage and corporate/institutional segment are set to reach at least GBP 10.0bn and GBP 15.0bn respectively by 2024.

Balance Sheet	
(FLIDes)	

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	564,279	523,867	536,220
Total Securities	344,101	304,827	318,181
Total Deposits	567,147	535,896	546,884
Tier 1 Common Capital	40,261	35,925	35,624
Total Assets	1,055,518	984,680	1,027,625
Total Risk-weighted Assets	233,323	237,726	250,608

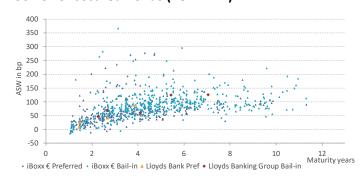
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	10,897	15,159	7,758
Net Fee & Commission Inc.	1,656	2,018	1,012
Net Trading Income	19,340	-23,339	6,909
Operating Expense	12,565	10,836	5,685
Credit Commit. Impairment	-1,603	1,744	759
Pre-tax Profit	8.030	5.610	4.417

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.12	1.51	1.61	Liquidity Coverage Ratio	134.57	144.28	142.00
ROAE	11.46	8.02	12.43	IFRS Tier 1 Leverage Ratio	3.92	3.79	3.60
Cost-to-Income	66.28	59.44	52.36	NPL/Loans at Amortised Cost	1.44	1.68	1.75
Core Tier 1 Ratio	17.26	15.11	14.22	Reserves/Loans at Amort. Cost	0.84	0.98	1.04

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Retail banking franchise in the UK
- Liquidity
- Capitalisation

- Geographical concentration risks
- Economic environment
- Profitability



Lloyds Bank - Mortgage

United Kingdom

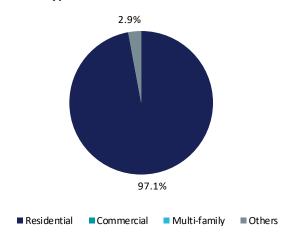


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

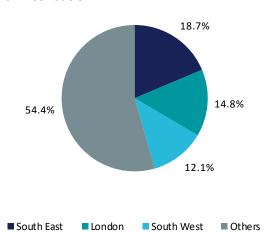
Cover	Pool	Data
CUVEI	F UU	ı Data

Cover pool volume (EURm)	30,285	Rating (Moody's)	Aaa
Amount outstanding (EURm)	20,106	Rating (S&P)	-
-thereof ≥ EUR 500m	26.1%	Rating (Fitch)	AAA
Current OC (nominal)	50.6%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	19% South East	RRL	-
Number of loans	255,719	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	15.1y	PCU	6
WAL (covered bonds)	3.9y	Recovery uplift	1
Fixed interest (cover pool)	63.0%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	57.9%	LCR eligible	Yes
LTV (indexed)	42.9%	LCR level (Bmk)	Not eligible
LTV (unindexed)	60.5%	Risk weight	20%
Loans in arrears	0.9%	Maturity structure (Bmk)	SB

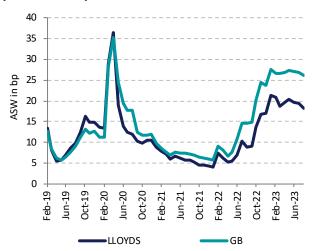
Borrower Types



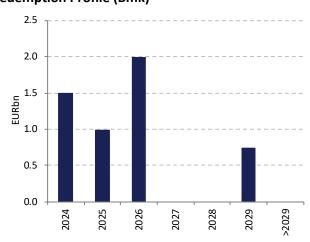
Regional Distribution



Spread Development



Redemption Profile (Bmk)





National Westminster Bank

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

National Westminster Bank

	Rating	Outlook
Fitch	A+	Stable
Moody's	A1	Negative
S&P	A+	Stable

Homepage

www.natwestgroup.com

National Westminster Bank (NatWest) is a wholly owned subsidiary of NatWest Holding Ltd., which in turn is a wholly owned subsidiary of the NatWest Group. The main shareholder of the Group is the United Kingdom via the Treasury (FY 2022: 46%). The NatWest Group owns three subsidiaries: NatWest Holdings Limited is the parent company of the ring-fenced institute, which in addition to NatWest also includes The Royal Bank of Scotland plc and Ulster Bank Ireland DAC (UBIDAC). The other two subsidiaries are NatWest Markets plc (this includes the investment bank) and the Royal Bank of Scotland International (Holdings) Limited. In 2022, further progress was made in connection with the sale of loan portfolios of UBIDAC, which has come about as a result of the withdrawal of the NatWest Group from Northern Ireland. In the same year, the NatWest Group concluded an agreement with the Allied Irish Banks plc. (AIB) to sell parts of the commercial loan portfolio. The agreement also stipulated the sale of mortgages and branches to the Permanent TSB Group Holdings plc. NatWest divides its business activities into the following segments: Retail Banking (FY 2022: 55% of operating income), Private Banking (8%), Commercial & Institutional (50%) and Central Items and Other (-13%). Most of the loan portfolio is comprised of mortgages (54%) and corporate loans (20%), as well as loans to banks and states (14%). Group funding consists of customer deposits (around 86%) and capital market funding (14%). Medium Term Notes (FY 2022: 52%) and TFSME (Bank of England refinancing scheme; 16%) account for the most significant shares of wholesale funding. The share of long-term funding amounts to around 70%.

Ba	lance	Sheet
(EU	IRm)	

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	342,181	340,594	363,864
Total Securities	36,988	20,898	27,002
Total Deposits	392,279	363,732	357,934
Tier 1 Common Capital	16,578	14,333	15,842
Total Assets	517,401	461,642	473,239
Total Risk-weighted Assets	102,652	126,753	135,973

Income Statement

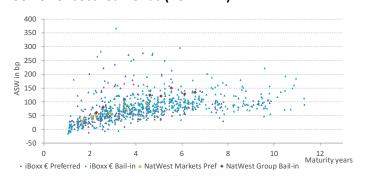
meonic statement			
(EURm)	2021Y	2022Y	2023H1
Net Interest In-	6,983	8,836	4,849
Net Fee & Commis-	1,724	1,907	935
Net Trading Income	150	746	-
Operating Expense	7,183	7,334	3,726
Credit Commit. Im-	-946	400	218
Pre-tax Profit	4,518	5,999	3,600

Redemption Profile (NatWest Group)



■ Sr Unsecured ■ Secured ■ Subordinated Unsecured ■ Jr Subordinated Unsecured ■ Preferred

Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.48	1.82	2.12	Liquidity Coverage Ratio	-	-	-
ROAE	14.31	18.08	22.49	IFRS Tier 1 Leverage Ratio	3.24	3.13	-
Cost-to-Income	65.98	57.24	49.39	NPL/Loans at Amortised Cost	1.04	1.25	1.31
Core Tier 1 Ratio	16.15	11.31	11.65	Reserves/Loans at Amort. Cost	0.87	0.85	0.86

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Market position in the UK
- Capitalisation
- Funding

- Geographical concentration in the UK
- Debt sustainability
- Asset quality



National Westminster Bank – Mortgage United Kingdom

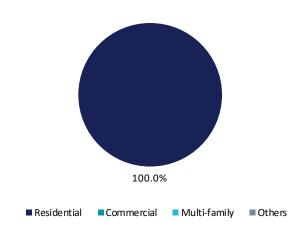


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cover	Pool	Data
COVE	F UUI	Data

Cover pool volume (EURm)	11,660	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,318	Rating (S&P)	-
-thereof ≥ EUR 500m	53.9%	Rating (Fitch)	AAA
Current OC (nominal)	403.0%	Rating (DBRS)	-
Committed OC	8.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	23% Greater London	RRL	-
Number of loans	102,940	JRL	-
Number of borrowers	n/a	Unused notches	-
Avg. exposure to borrowers (EUR)	n/a	AAA credit risk (%)	-
WAL (cover pool)	20.1y	PCU	6
WAL (covered bonds)	0.8y	Recovery uplift	1
Fixed interest (cover pool)	93.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	100.0%	LCR eligible	Yes
LTV (indexed)	43.4%	LCR level (Bmk)	Not eligible
LTV (unindexed)	55.8%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

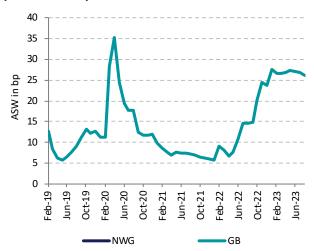
Borrower Types



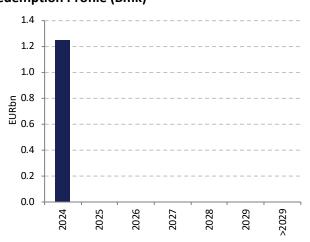
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Nationwide Building Society

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Nationwide Building Society

	Rating	Outlook
Fitch	Α	Stable
Moody's*	A1	Stable
S&P	A+	Stable

Homepage

www.nationwide.co.uk

Nationwide Building Society (NBS) is headquartered in Swindon and is organised on cooperative lines. As measured by assets, it is the largest building society in the UK and the second-largest mortgage provider as measured by market share (12.4% as at September 2022). It is classified as an Other Systemically Important Institute (O-SII) by the Bank of England. NBS has around 18,100 employees and boasts market shares of 9.6% for deposits and 10.4% for current accounts in the UK. Services provided by NBS include residential mortgages, deposits and the insurance products as well as the retail customer business and financial planning. The loan portfolio as at April 2023 breaks down as follows: prime residential mortgages (75%), buy-to-let mortgages (21%), consumer banking (2%) and commercial and other lending (3%). Retail funding (FY 2023: 69%) and wholesale funding (21%) account for the overwhelming majority of the funding mix at NBS. The most important components of wholesale funding are TFSME (Bank of England refinancing scheme; FY 2023: 29%) and covered bonds (25%), as well as deposits and medium term notes (19% each). As a building society, NBS has set itself the target of helping 250,000 people buy their first home by 2025 (basis year 2020) as well as providing the social housing sector with loans totalling GBP 1.0bn (basis year 2022). NBS is a member of the Net-Zero Banking Alliance and plans to reduce its CO₂ emissions to net zero by 2050. The bank offers its customers advantageous funding for sustainable renovation projects and to support the purchase of energy efficient property. The financial year of NBS ends on 04 April each year.

Balance Sheet			
(EURm)	2021Y	2022Y	2023Y
Net Loans to Customers	237,039	248,301	240,294
Total Securities	35,551	33,133	33,661
Total Deposits	205,623	218,597	219,263
Tier 1 Common Capital	14,121	14,883	15,656
Total Assets	299,803	325,021	309,961

38,776

61.844

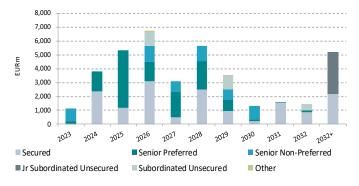
58,974

Income Statement

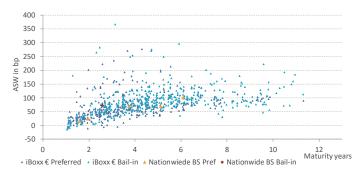
(EURm)	2021Y	2022Y	2023Y
Net Interest In-	3,527	4,189	5,205
Net Fee & Com-	166	302	140
Net Trading In-	84	58	69
Operating Ex-	2,505	2,611	2,593
Credit Commit.	213	-32	146
Pro-tay Profit	923	1 878	2 579

Redemption Profile

Total Risk-weighted Assets



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023Y		2021Y	2022Y	2023Y
Net Interest Margin	1.27	1.37	1.67	Liquidity Coverage Ratio	158.51	180.97	178.65
ROAE	4.57	8.40	10.21	IFRS Tier 1 Leverage Ratio	4.76	4.62	5.10
Cost-to-Income	67.31	57.51	48.00	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	36.42	24.06	26.55	Reserves/Loans at Amort. Cost	0.42	0.36	0.36

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Franchise position in the domestic market
- Capitalisation

Risks / Weaknesses

- Concentration risks (UK residential mortgages)
- Profitability (competitive pressure)

^{*} Senior Unsecured/LT Bank Deposits



Nationwide Building Society – Mortgage United Kingdom

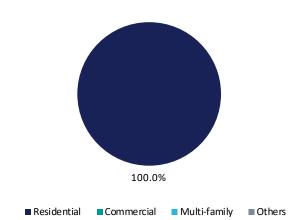


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

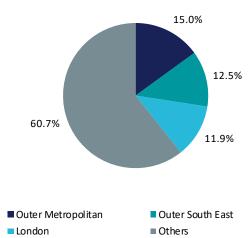
Cover	Dool	Data
Cover	POOL	Data

Cover pool volume (EURm)	23,006	Rating (Moody's)	Aaa
Amount outstanding (EURm)	14,932	Rating (S&P)	AAA
-thereof ≥ EUR 500m	40.2%	Rating (Fitch)	AAA
Current OC (nominal)	54.1%	Rating (DBRS)	-
Committed OC	7.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	15% Outer Metropolitan	RRL	aa-
Number of loans	200,876	JRL	aa
Number of borrowers	200,876	Unused notches	2
Avg. exposure to borrowers (EUR)	114,528	AAA credit risk (%)	2.5%
WAL (cover pool)	18.7y	PCU	6
WAL (covered bonds)	6.0y	Recovery uplift	1
Fixed interest (cover pool)	85.5%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	67.0%	LCR eligible	Yes
LTV (indexed)	44.8%	LCR level (Bmk)	Not eligible
LTV (unindexed)	55.0%	Risk weight	20%
Loans in arrears	0.4%	Maturity structure (Bmk)	SB

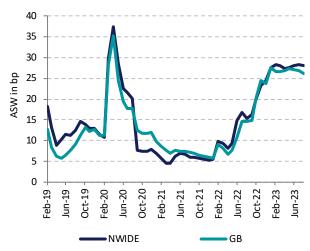
Borrower Types



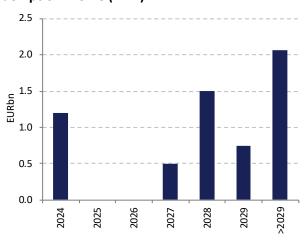
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Santander UK Group Holdings

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Santander UK Group **Holdings PLC**

	Rating	Outlook
Fitch	Α	Stable
Moody's*	Baa1	Stable
S&P	BBB	Stable

Homepage

www.santander.co.uk

* LT Issuer Rating LC/Senior Unsecured

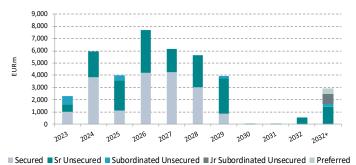
Santander UK Group Holding (Santander UK) is a wholly owned subsidiary of the Spanish Banco Santander SA. In turn, Santander UK plc is a wholly owned subsidiary of Santander UK Group Holdings and is categorised as an Other Systemically Important Institute (O-SII) by the UK financial supervisory body. The Group is divided into Santander plc (ring-fenced bank) and Santander Financial Services plc (non-ring-fenced bank). Through the implementation of a ring-fenced structure, the corporate and investment banking business of Santander UK was transferred to Banco Santander (London branch). In 2022, Santander UK served around 14 million customers across 449 branches and was the third-largest retail mortgage provider in the UK (as at Q3 2022). Santander UK divides its business activities into the following segments: Retail Banking (FY 2022: 77.6% of operating earnings before tax), Corporate & Commercial Banking (14.5%), Consumer Finance (7.5%) and Corporate Centre (0.4%). Mortgages comprise the majority of the UK loan portfolio (85%), with the remaining 15% mainly comprising loans to corporations (Q1 2023). A total of 76% of the funding mix consists of deposits, while 24% is made up of wholesale funding (FY 2022). Capital market funding at Group level mostly takes place via the instruments TFSME (Bank of England refinancing scheme; FY 2022: 43%), covered bonds (26%) and HoldCo senior unsecured bonds (22%). Santander UK has set itself the target of financing green mortgage loans for energy efficient property in the amount of GBP 20.0bn by 2025 (as at FY 2022: GBP 6.5bn) in order to support its customer base in its efforts linked to the green transition.

Balance Sheet			
(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	254,862	252,743	245,381
Total Securities	24,990	15,116	-
Total Deposits	229,954	222,816	221,984
Tier 1 Common Capital	12,916	12,225	12,921
Total Assets	349,658	329,480	330,938
Total Risk-weighted Assets	81,134	80,234	83,811

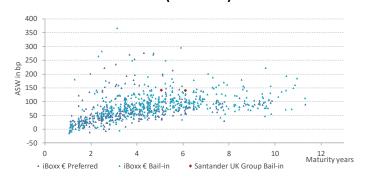
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	4,650	5,246	2,694
Net Fee & Commission Inc.	326	380	-
Net Trading Income	-5	45	-
Operating Expense	2,827	2,834	1,461
Credit Commit. Impairment	-271	377	120
Pre-tax Profit	2,162	2,222	1,339

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.38	1.56	-	Liquidity Coverage Ratio	165.96	162.78	160.00
ROAE	8.45	8.94	11.36	IFRS Tier 1 Leverage Ratio	3.73	3.74	-
Cost-to-Income	53.57	49.06	48.21	NPL/Loans at Amortised Cost	1.38	1.18	1.38
Core Tier 1 Ratio	15.92	15.24	15.42	Reserves/Loans at Amort. Cost	0.40	0.42	0.48

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Loan quality
- **Profitability**
- Capitalisation

Risks / Weaknesses

- Debt level in comparison with peers
- Influence of the parent company on capitalisation
- Diversification of business areas versus UK peers



Santander UK – Mortgage

United Kingdom

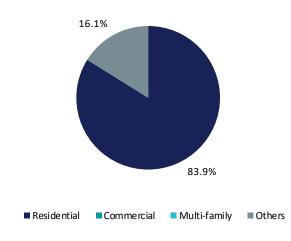


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cov	/er	Poo	Data

Cover pool volume (EURm)	28,239	Rating (Moody's)	Aaa
Amount outstanding (EURm)	17,535	Rating (S&P)	AAA
-thereof ≥ EUR 500m	31.4%	Rating (Fitch)	AAA
Current OC (nominal)	61.0%	Rating (DBRS)	-
Committed OC	17.9%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	21% South East	RRL	a+
Number of loans	148,145	JRL	aa-
Number of borrowers	221,370	Unused notches	1
Avg. exposure to borrowers (EUR)	106,989	AAA credit risk (%)	2.5%
WAL (cover pool)	21.9y	PCU	6
WAL (covered bonds)	2.9y	Recovery uplift	1
Fixed interest (cover pool)	91.7%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	59.0%	LCR eligible	Yes
LTV (indexed)	54.4%	LCR level (Bmk)	Not eligible
LTV (unindexed)	61.3%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

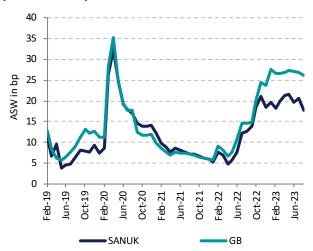
Borrower Types



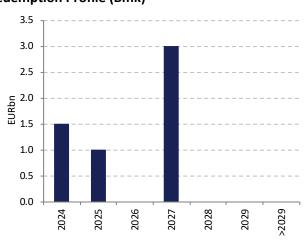
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Skipton Building Society





Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Skipton Building Society

	Rating	Outlook
Fitch	A-	Stable
Moody's*	A2	Stable
S&P	-	-

Homepage

www.skipton.co.uk

Skipton Building Society (Skipton) is the fourth-largest building society in the UK as measured by total assets (GBP 33.6bn in FY 2022). It employs around 2,500 staff and has over 1.1 million members. Skipton's banking activities comprise a broad product portfolio, with mortgages, savings accounts, financial consultancy services in addition to real estate brokerage and other associated services offered mainly across the UK. The bank reports in the following four segments: Mortgages and Savings (FY 2022: 74% of pre-tax income), Estate Agency (23%), Investment Portfolio (3%) and Central Division (1%). The segment Estate Agency includes the 99.9% subsidiary Connells Group, which is the largest real estate broker in the UK. The loan portfolio largely consists of residential (74.9%) and buy-to-let mortgages (22.5%). The remainder is attributable to the categories of "other" (1.0%), commercial mortgages (0.6%) and subprime (0.2%). The mortgage portfolio is geographically diversified, whereby the largest regions are London (18%), south east (15%), north west (10%), East Anglia (9%) and south-west (9%). The funding mix mainly consists of retail funding (79%). Excluding the funding activities of the wholly owned subsidiary Skipton Investment Ltd., wholesale funding is dominated by the components of covered bonds (42% as at FY 2022) and TFSME (Bank of England refinancing scheme; 34%). In 2022, Skipton attempted to offset its Scope 1 and 2 emissions via a reforestation programme and has set itself the target of achieving net zero CO₂ emissions by 2045.

Balance Sheet			
(EURm)	2020Y	2021Y	2022Y
Net Loans to Customers	24,890	27,899	27,883
Total Securities	1,753	2,895	4,506
Total Deposits	23,260	26,204	27,835
Tier 1 Common Capital	1,770	2,114	2,202
Total Assets	31,546	35,085	37,849
Total Risk-weighted Assets	4,602	4,744	8,539

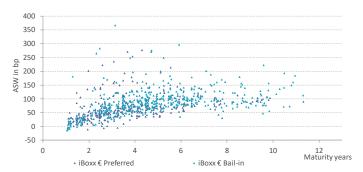
Income Statement

(EURm)	2020Y	2021Y	2022Y
Net Interest Income	268	345	498
Net Fee & Commission Inc.	465	1,217	1,264
Net Trading Income	-3	-1	1
Operating Expense	589	1,304	1,396
Credit Commit. Impairment	30	-15	20
Pre-tax Profit	134	316	351

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2020Y	2021Y	2022Y		2020Y	2021Y	2022Y
Net Interest Margin	0.90	1.05	1.38	Liquidity Coverage Ratio	185.21	186.02	174.27
ROAE	5.81	11.77	11.11	IFRS Tier 1 Leverage Ratio	5.73	6.16	5.95
Cost-to-Income	80.17	83.29	79.00	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	38.46	44.56	25.79	Reserves/Loans at Amort. Cost	0.19	0.12	0.18

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset quality
- Capitalisation
- Profitability (in a peer comparison)

Risks / Weaknesses

- Economic environment
- Dwindling mortgage demand
- Geographical concentration

^{*} Senior Unsecured/LT Bank Deposits



Skipton Building Society – Mortgage

United Kingdom

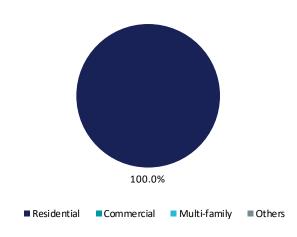


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

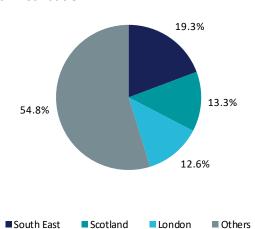
Cov	/er	Poo	Data

Cover pool volume (EURm)	4,184	Rating (Moody's)	Aaa
Amount outstanding (EURm)	2,248	Rating (S&P)	-
-thereof ≥ EUR 500m	22.2%	Rating (Fitch)	AAA
Current OC (nominal)	86.1%	Rating (DBRS)	-
Committed OC	8.0%	TPI	Probable
Cover type	Mortgage	TPI leeway	4
Main country	100% United Kingdom	Collateral score	5.0%
Main region	19% South East	RRL	-
Number of loans	30,822	JRL	-
Number of borrowers	26,743	Unused notches	-
Avg. exposure to borrowers (EUR)	156,448	AAA credit risk (%)	-
WAL (cover pool)	20.2y	PCU	6
WAL (covered bonds)	1.3y	Recovery uplift	1
Fixed interest (cover pool)	92.3%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	51.5%	LCR eligible	Yes
LTV (indexed)	49.4%	LCR level (Bmk)	Not eligible
LTV (unindexed)	59.5%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

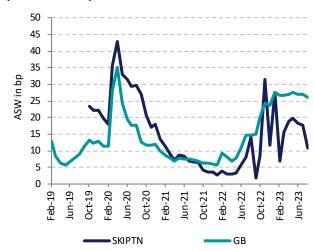
Borrower Types



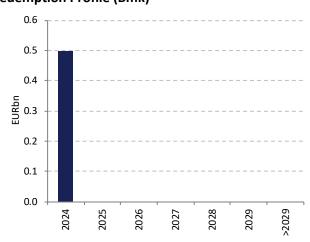
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Virgin Money

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Virgin Money UK PLC

	Rating	Outlook
Fitch	BBB+	Positive
Moody's	Baa1	Stable
S&P	BBB-	Stable

Homepage

www.virginmoneyukplc.com

Virgin Money UK PLC (Virgin Money) is the sixth largest bank in the UK and offers all the services of a universal bank to its approximately 6.6 million customers. Virgin Money UK acts as a holding company in order to meet the requirements of ring fencing. The Group focuses its business on retail and corporate banking nationwide. The wholly owned subsidiary Clydesdale Bank (total assets: EUR 105.4bn, rating: A-/A3/A-) is the main operating unit of the Group. Virgin Money reports in the four business segments "Mortgages", "Unsecured", "Business" and "Deposits". The loan portfolio consists predominantly of mortgages (80%), followed by the "Unsecured" (8%) and "Business" (12%) segments. 75% of the mortgage portfolio in the "Mortgages" segment is allocated to the private sector (residential), the remainder to the Buy-to-let category. Geographically, 30% of the portfolio is allocated to the Greater London region and 32% to the Rest of South. The group's funding is predominantly made up of customer deposits. Virgin Money relies on the issuance of RMBS and covered bonds for funding. The latter are issued via the subsidiary Clydesdale Bank. The group has joined the Net Zero Banking Alliance and set the goal of achieving net zero emissions by 2050. This is to be achieved, among other things, through the use of sustainable energy sources. In addition, customers are supported in the implementation of sustainable goals with the granting of "green" loans and mortgages. The end of the business year is 30 September.

Balance Sheet (EURm)

Net Loans to Customers	83,885	81,614	81,923
Total Securities	5,256	6,152	6,921
Total Deposits	78,016	74,356	76,551
Tier 1 Common Capital	4,056	3,999	4,027
Total Assets	103,795	104,439	105,321
Total Risk-weighted Assets	28,140	27,336	28,047

2021Y

2022Y

2023H1

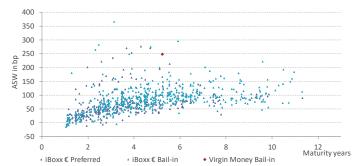
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	1,554	1,860	972
Net Fee & Commission Inc.	142	158	75
Net Trading Income	11	6	-5
Operating Expense	928	1,064	541
Credit Commit. Impairment	-151	60	164
Pre-tax Profit	478	702	269

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.55	1.78	1.88	Liquidity Coverage Ratio	149.22	137.77	153.45
ROAE	9.11	9.09	6.02	IFRS Tier 1 Leverage Ratio	3.93	3.85	3.84
Cost-to-Income	54.47	52.60	51.92	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	14.41	14.63	14.36	Reserves/Loans at Amort. Cost	0.69	0.63	0.72

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Asset Quality
- Capitalisation
- Market position

Risks / Weaknessses

- Profitability (but improving)
- Diversification of business segments (predominantly on mortgages)
- Franchise in comparison with peers



Virgin Money (Clydesdale) – Mortgage United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

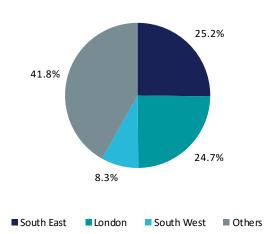
Cover Pool Data

Cover pool volume (EURm)	9,109	Rating (Moody's)	Aaa
Amount outstanding (EURm)	4,643	Rating (S&P)	-
-thereof ≥ EUR 500m	23.7%	Rating (Fitch)	AAA
Current OC (nominal)	96.2%	Rating (DBRS)	-
Committed OC	8.1%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% United Kingdom	Collateral score	5.0%
Main region	25% South East	RRL	-
Number of loans	46,521	JRL	-
Number of borrowers	79,590	Unused notches	-
Avg. exposure to borrowers (EUR)	114,445	AAA credit risk (%)	-
WAL (cover pool)	20.0y	PCU	6
WAL (covered bonds)	3.1y	Recovery uplift	1
Fixed interest (cover pool)	97.2%	Outstanding ESG BMKs	No
Fixed interest (covered bonds)	40.4%	LCR eligible	Yes
LTV (indexed)	50.4%	LCR level (Bmk)	Not eligible
LTV (unindexed)	58.5%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

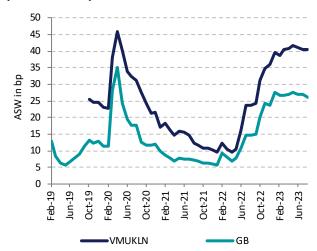
Borrower Types

100.0% ■ Residential Commercial Multi-family ■ Others

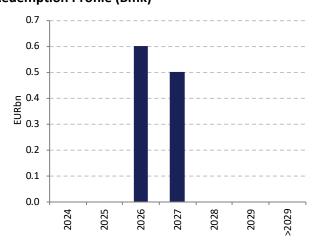
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Yorkshire Building Society

United Kingdom



Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Ratings

Yorkshire Building Society

	Rating	Outlook
Fitch	A-	Stable
Moody's	A3	Positive
S&P	-	-

Homepage

www.ybs.co.uk

Yorkshire Building Society (YBS) is organised along cooperative lines and is headquartered in Bradford. It is the third-largest building society in the UK as measured by assets. Around 3,100 employees (both full-time and part-time) offer approximately 3 million YBS members in the UK traditional building society products such as savings accounts and mortgages, in addition to insurance products. In 2022, the market share of YBS in the mortgage business stood at 3.2% and at 2.2% for savings accounts. As a building society, YBS offers direct issuance of mortgage loans to customers. Under the brand Accord Mortgages, which is also a wholly owned subsidiary, YBS provides mainly intermediary lending for residential property in addition to the mortgage business. Residential mortgages and private buy-tolet mortgages account for the lion's share of the loan portfolio, at 81.4% and 14.3% respectively, while commercial mortgages comprise a share worth 3.3%. In geographical terms, the regions Greater London (18.7%), south east (17.8%) and Midlands (13.0%) together account for the majority of the total portfolio. A total of 20% of wholesale funding consists of liabilities (FY 2022), while covered bonds account for 29%. TFSME (Bank of England refinancing scheme; 27%) and Medium Term Notes (12%) supplement the funding profile. YBS is striving to operate on a climate-neutral basis by 2050. In this context, Scope 1 and 2 carbon emissions are to be cut to net zero by 2035. In 2021, YBS presented a revised ESG strategy.

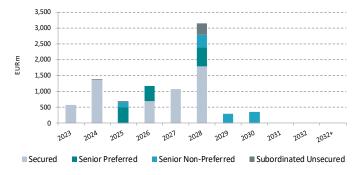
Balance Sheet

(EURm)	2021Y	2022Y	2023H1
Net Loans to Customers	49,914	50,963	53,393
Total Securities	5,437	7,365	9,404
Total Deposits	43,315	48,644	54,315
Tier 1 Common Capital	3,536	3,755	-
Total Assets	62,774	66,240	72,382
Total Risk-weighted Assets	20,992	22,375	-

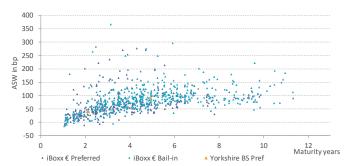
Income Statement

(EURm)	2021Y	2022Y	2023H1
Net Interest Income	625	849	476
Net Fee & Commission Inc.	10	6	2
Net Trading Income	32	92	-80
Operating Expense	322	355	184
Credit Commit. Impairment	-23	7	8
Pre-tax Profit	372	589	206

Redemption Profile



Senior Unsecured Bonds (EUR BMK)



Company Ratios

	2021Y	2022Y	2023H1		2021Y	2022Y	2023H1
Net Interest Margin	1.07	1.31	1.38	Liquidity Coverage Ratio	178.57	170.66	-
ROAE	8.74	11.70	7.69	IFRS Tier 1 Leverage Ratio	5.67	5.74	-
Cost-to-Income	48.13	37.22	46.13	NPL/Loans at Amortised Cost	-	-	-
Core Tier 1 Ratio	16.85	16.78	16.60	Reserves/Loans at Amort. Cost	0.06	0.08	0.09

Source: Bloomberg, S&P Global Market Intelligence, NORD/LB Fixed Income Research; as of: 31.07.2023

Strengths / Opportunities

- Deposit basis
- Capitalisation
- **Profitability**

Risks / Weaknesses

- Competition in the domestic market
- Geographical concentration
- Economic environment may impair asset quality

^{*} Senior Unsecured/LT Bank Deposits



Yorkshire Building Society – Mortgage

United Kingdom 😹

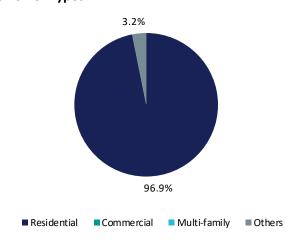


Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Cov	ıρr	Pool	Data

Cover pool volume (EURm)	9,105	Rating (Moody's)	Aaa
Amount outstanding (EURm)	5,296	Rating (S&P)	-
-thereof ≥ EUR 500m	28.3%	Rating (Fitch)	AAA
Current OC (nominal)	71.9%	Rating (DBRS)	-
Committed OC	10.5%	TPI	Probable
Cover type	Mortgage	TPI leeway	3
Main country	100% United Kingdom	Collateral score	5.0%
Main region	19% South East	RRL	-
Number of loans	48,014	JRL	-
Number of borrowers	48,009	Unused notches	-
Avg. exposure to borrowers (EUR)	183,670	AAA credit risk (%)	-
WAL (cover pool)	23.0y	PCU	6
WAL (covered bonds)	2.8y	Recovery uplift	1
Fixed interest (cover pool)	94.2%	Outstanding ESG BMKs	Yes
Fixed interest (covered bonds)	37.1%	LCR eligible	Yes
LTV (indexed)	54.9%	LCR level (Bmk)	Not eligible
LTV (unindexed)	65.7%	Risk weight	20%
Loans in arrears	0.0%	Maturity structure (Bmk)	SB

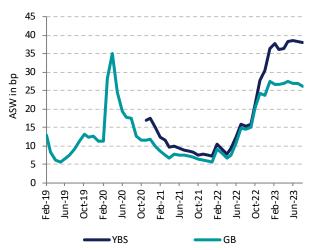
Borrower Types



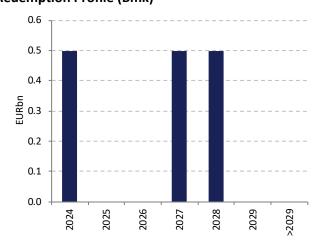
Regional Distribution



Spread Development



Redemption Profile (Bmk)



Source: Issuer, Rating agencies, Bloomberg, NORD/LB Fixed Income & Macro Research



Regulatory Risk weights of covered bonds

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Risk weights as the starting point for risk-weighted assets

The Capital Requirements Regulation (CRR) includes provisions on calculating the capital requirements for credit institutions that follow the credit risk standardised approach (SACR) to determine the risk weightings of covered bonds, among other assets. Establishing the relevant risk weighting is important insofar as, under the SACR, the risk-weighted portion of an asset is obtained from multiplication of the position's value and the risk weighting. The sum of all the portions results in the risk-weighted assets (RWA), which must be backed accordingly by equity capital. In addition to the Covered Bond Directive (CBD) applicable to the issuance of covered bonds from 8 July 2022 onwards, collateralisation by eligible cover assets and appropriately transparent cover pool reporting, rating assessments of a risk position in particular play an important role in determining the risk weighting of a covered bond. The Credit Quality Step system used for this purpose and the other conditions for preferential risk weighting of covered bonds are dealt with below.

Compliance with Article 129 of the CRR required for preferential risk weighting

Covered bonds are generally eligible for preferential treatment in relation to risk weighting under the credit risk standardised approach. The requirements that a bond has to meet in order to comply with this are laid down in Article 129 CRR. The date of issuance is also of crucial importance in this regard. The Covered Bond Directive entered into force on 8 July 2022, together with a revised Article 129 CRR and an amendment to the liquidity requirements for credit institutions (LCR-R). In the past, reference was made here to Article 52(4) of the UCITS Directive, which superficially described a covered bond. Now, however, this article also refers to the Covered Bond Directive or, based on the CBD, Article 129 CRR specifies requirements so that a covered bond can be eligible for preferential risk weighting. As a result, conformity with the covered bond legislation in the particular country will now have to be checked, as the Member States had to transpose the CBD into national law. Nevertheless, slightly different requirements apply to covered bonds issued before 8 July 2022.

Until now, Article 52(4) of the UCITS Directive had been the "anchor" in the risk weighting of covered bonds

The relevant Article (Article 52(4) of the UCITS Directive) defined requirements for covered bonds, even though this definition under the UCITS Directive may not initially have been seen in connection with establishing risk weightings or other regulatory metrics. Instead, Article 52(4) provides that undertakings for collective investment in transferable securities (UCITS) may, under certain conditions, hold a higher proportion of certain bonds. This is still the case. However, the Article also served in many cases as a basis for defining covered bonds. The aforementioned Directive was previously adapted to the future CB Directive in January 2020.



Artikel 52(4) OGAW only "grandfathered" covered bonds

It also followed from the requirements of "old" Article 52(4) of the UCITS Directive, which has referred to the CBD since 7 January 2020, that covered bonds issued outside the European Economic Area (EEA) may under no circumstances be UCITS-compliant. The Covered Bond Directive, or rather the relevant transposition into national law, is now regarded as the reference point.

Article 129 CRR defines the requirements for covered bonds and risk weighting

Together with the Covered Bond Directive a clear definition of the collateral and requirements for covered bonds was also included in Article 129 CRR. In conjunction with Directive 2019/2162, this Article will then be used for determining the risk weighting. Certain requirements of Article 129 do not apply to covered bonds issued up to 31 December 2007 or, as the case may be, up to 7 July 2022. If an issuer's covered bonds (both "old" and "new") are issued from one cover pool, however, the requirements must be met in full, so that this applies automatically to the old bonds as well. The table below shows which assets qualify as eligible collateral. However, covered bonds issued up to 7 July 2022 must also meet the requirements of Art. 129 (1) to (3), i.e. including requirements and limits for creditworthiness and borrowers, as well as LTV limits and regular collateral monitoring. Liens on aircraft and loans to small and medium-sized enterprises (SMEs) are still disregarded, with the result that they are neither eligible as cover assets within the meaning of the CRR, nor do they benefit from preferential risk weighting.

Review of property values as a hurdle for preferential risk weighting

As mentioned above, the revised Article 129 CRR has brought about changes in the monitoring of property values. These reviews must now be conducted at least once a year, regardless of whether the property is residential, commercial or a ship. This is a fundamental point in the grandfathering of "old bonds". When the CRR was introduced in 2013, real estate values were to be monitored annually in the case of commercial properties, and every three years for residential properties. Although issuers do not have to conduct the review each year if the bond was issued before 31 December 2007, the annual review now also applies to bonds placed at a later date. In Germany, the Association of German Pfandbrief Banks (Verband Deutscher Pfandbriefbanken, vdp) maintains a database as an ongoing market monitoring system. The database has been tracking price trends in Germany since 2007 and meets the requirements of Art. 208 CRR. As reported by vdpResearch, far more than 90% of the credit institutions based in Germany use the system for monitoring annual rent and price changes, thus fulfilling the extended requirement of Art. 129(3) CRR. Issuers and covered bond creditors will consequently need to spend more time on additional checks in order to continue to benefit from a lower risk weighting, because not every country can provide access to the type of transaction database mentioned above. Statistical market trends are sufficient to meet the requirement; monitoring at individual asset level is not necessary at this point. In Germany, BaFin (the German financial regulator) has agreed the following: in the event of changes in market values as provided by the vdp, at the level of -10% for commercial and -20% for residential properties within a period of three years, a "warning" will be issued. On this basis, the institutions using this data will examine their portfolio more closely and, if necessary, only then conduct a review at individual loan level. There is only a change to the required cycle of monitoring itself.



Transparency requirement / investor information now regulated through the CBD

Up to 7 July 2022, Art. 129(7) CRR required that investors must be able to present certain portfolio information to the competent authority in order to obtain preferential treatment of covered bonds. This included: value of the cover pool and outstanding covered bonds, geographical distribution and type of cover assets, loan size, interest rate and currency risks, maturity structure of cover assets and covered bonds, and loans ≥90 days past due. However, this passage no longer appears in the current version of Article 129 CRR. Instead, Article 129 CRR now requires compliance with Art. 3 No. 1 CBD. Article 14 CBD includes extensive requirements that issuers must meet with regard to investor information. This information must be made available at least every quarter, whereas previously it was twice a year. In addition to the above-mentioned information, the following must be reported: an ISIN list of all covered bonds (if available), the type of cover assets, the valuation method, extended information on market risk and on credit and liquidity risks, maturity extension triggers, required/actual overcollateralisation (statutory, contractual, voluntary).

Para-	Issued up to (para-graphs marked with x do not need to be met in order to qualify for lower risk weighting) Specific continued by the continued provided in the continued provided p	Current	Up to 31.12.2007
graph	Description		2
1	To be eligible for the preferential treatment set out in Art. 3 No. 1 CBD, covered bonds must meet the requirements set out in Art. 129(3)(3a)(3b) CRR and be collateralised by any of the following assets: Exposures to or guaranteed by:		X
	a) Central governments, the ESCB central banks, public sector entities, regional governments or local authorities in the Union		
	b) Third-country central governments, third-country central banks, multilateral development banks, international organisations (CQS 1), third-country public sector entities, third-country regional governments or third-country local authorities (CQS 1), and exposures within the meaning of this point that qualify with CQS 2, provided that they do not exceed 20% of the nominal amount of outstanding covered bonds of the issuing institutions		
	c) Credit institutions that qualify for CQS 1 and 2 or CQS 3 under the following conditions: i) short-term deposits (original maturity <100 days), provided they comply with Art. 16 CBD, or ii) derivative contracts as referred to in Art. 11(1) CBD		
	 d) Residential loans: LTV limit 80% (in conjunction with paragraph 1c) e) Residential loans (guaranteed by a protection provider referred to in Art. 201 CRR with min. CQS 2) with max. LTV of 80% for a residential property located in France, provided that the loan-to-income ratio is ≤33% when the loan has been granted (further requirements apply to borrower and collateral) 		
	f) Commercial property loans: LTV limit 60%; LTV limit of 70% if OC (overcollateralisation) is at least 10%, the bondholders' claim meets the legal certainty requirements set out in Chapter 4 CRR, and this claim has priority over all other claims on the collateral g) Loans secured by maritime liens: LTV limit 60%; 60% of the ship's value less any prior maritime liens		
1a	 g) Loans secured by maritime liens: LTV limit 60%; 60% of the ship's value less any prior maritime liens a) Exposures to credit institutions (Art. 129(1) subparagraph 1 point c) with CQS 1, ≤ 15% of the nominal amount of issued covered bonds 		X
	b) Exposures to credit institutions (Art. 129(1) subparagraph 1 point c) with CQS 2, ≤ 10% of the nominal amount of issued covered bonds		
	c) Short-term deposits of credit institutions or derivative contracts with CQS 3 (in accordance with Art. 129(1) subparagraph 1 (c) (i) or (ii) CRR); ≤8% of the nominal amount of the issued covered bonds (additional approval requirements apply in the case of derivative contracts)		
	d) Total exposure to credit institutions with CQS 1, 2 or 3, ≤15% of the nominal amount of the issued covered bonds, and exposure to credit institutions that are assigned to CQS 2 or 3 may not exceed 10% of the nominal amount of the issuing institution's outstanding covered bonds		

Source: CRR, NORD/LB Markets Strategy & Floor Research; X = condition is NOT to be fulfilled or that version from the time of issue



Article 129 CRR (unchanged from 8 July 2022) - (CONTINUED)

Article :	129 CRR (unchanged from 8	3 July 2022)	– (CONTINU	ED)			marked need to to qualit	p to (paragraphs d with x do <u>not</u> be met in order fy for lower risk reighting)	Current	Up to 31.12.2007	CCOC while 7 04
graph	Description								Up to	2	
1b	Art. 129(1a) CRR applies not eral of an internal covered be			Art. 8 CBD (ir	nternally is	sued cove	red bonds;	collat-			
1c	For the purposes of Art. 129(plies over the entire term of		aph 1 (d) CRR	, the LTV cei	ling of 80%	per loan s	shall apply	; it ap-			
1d	For the purposes of Art. 129(apply; it applies over the ent			g) CRR, the LT	TV ceiling o	of 60% or 7	'0% per loa	an shall			
2	The cases referred to in Art. tended solely for the protect					te to collat	eral which	is in-			
3	In the case of collateralisatio quirements for immovable p least annually.				-			-		X	
3a	Minimum overcollateralisation Member States may set a low vided that: a) overcollateralisation is bas sets, or asset valuation is bas b) the ratio does not fall belo The assets contributing to th Art. 129(1a) CRR	ver ratio or al sed on a form sed on the col ow 2%, based	llow their con al approach t llateral value on the nomir	npetent auth hat takes int and nal principle	norities to account	set an app the under o in Art. 15	ropriate ra lying risk o (6) and (7)	tio, pro- f the as- CBD.		X	>
3b	Exposures referred to in Art. provided the thresholds for owith		-			-		-		X	Х
4	Covered bonds for which a racorresponds to Art. 136 CRR		CAI is available	e are assigne	d the follo	wing risk v	weighting,	which			
	Credit quality step (CQS)	1	2	3	4		5	6			
	Risk weighting (RW)	10%	20%	20%	50%	5	0%	100%			
5	Unrated covered bonds are a sures to the issuing institution		k weighting ba	ased on the I	risk weight	ing of prio	r unsecure	ed expo-			
	If a RW of X% applies to expo	sure to the ir	nstitution,		20%	50%	100%	150%			
	then the covered bond is ass	igned a RW o	f X%		10%	20%	50%	100%			
6	Covered bonds issued before (3), (3a) and (3b) CRR. The pri til their due date.			-	-		-				
7	Covered bonds issued before plicable at the time of issue, ential treatment under parag	shall not be s	ubject to the	requiremen	ts of parag	raphs 3a a		-			

Source: CRR, NORD/LB Markets Strategy & Floor Research; X = condition is NOT to be fulfilled or that version from the time of issue



Rating assessments as further decisive factor

Fulfilment of the requirements described above constitutes a necessary condition for a preferential risk weighting of covered bonds. As a further and decisive factor in determining the risk weighting, Article 129 (4) and (5) CRR lay down requirements with regard to rating assessments. While paragraph 4 applies risk weighting in the case of at least one existing rating assessment, paragraph 5 applies risk weighting in the case where a covered bond does not have a rating.

Determining the Credit Quality Step for more than one recognised rating assessment

	Rating 2 CQS 1			ating 2 CQS 1 CQS 2				CQS 3			
Rating 1		AAA	AA+	AA	AA-	A+	Α	A-	BBB+	BBB	BBB-
	AAA										
COC 1	AA+ Credit Quality			Cr	edit Qua	lity	Credit Quality				
CQS 1	AA	Step 1			Step 2			Step 3			
	AA-										
	A+ Cradit Ovality			Credit Quality		Credit Quality Step 3					
CQS 2	Α	Credit Quality									
	A-	Step 2							Step 2		
	BBB+	Credit Quality				Cr	edit Qua	lity	Cro	dit Oua	lity
CQS 3	BBB			•		Ci		псу	Credit Quality		
	BBB-		Ste	р 3		Step 3		Step 3			

Source: Regulation 2016/1799 and 2021/2005, Regulation 575/2013, NORD/LB Markets Strategy & Floor Research

Deriving the Credit Quality Step of a covered bond

Rating assessments are always taken into account using the Credit Quality Step system, which is laid down in Regulation 2016/1799 and in the 2021/2005 amendment. A total of six different credit rating categories are assigned through ratings issued by recognised External Credit Assessment Institutions (ECAI) (see: Mapping of rating assessments). Since risk positions can in principle have several ECAI ratings, a new mapping is required to determine the Credit Quality Step (CQS) if there is more than one rating available (see table above). Irrespective of the number of eligible ratings, Article 138 CRR is key to determining the Credit Quality Step. If two ratings are available for a risk position, the applicable rating shall be the one resulting in the higher of the two possible risk weightings, if the two ratings differ (see table). A higher risk weighting is equivalent to a lower credit rating. In this respect, we understand an AA-equivalent rating to be lower than an AAA-equivalent rating. If more than two ratings are available for a risk position, the two ratings resulting in the lowest risk weighting, i.e. the two highest ratings, are applicable. If these two assessments differ from each other, the Credit Quality Step is determined on the basis of the rating (out of these two ratings) that results in the higher risk weighting. It follows from the requirements of Article 138 CRR that only the two highest ratings, if available, are relevant to determining the Credit Quality Step as defined in the CRR, even if a position has more than two ratings from recognised rating agencies. The resulting simplification of CQS provisions is shown in the table; no distinction is made with regard to the rating grades of individual agencies.



Best rating and fulfilment of all requirements leads to a risk weighting of 10%

To be eligible for preferential treatment of risk weighting, Article 129(1) CRR stipulates that, in addition to cover by eligible assets referred to in the aforementioned Article, the requirements of paragraphs 3 (monitoring of property/ship value), 3a (overcollateralisation) and 3b (substitution cover) must be met. If the requirements are deemed to have been met, the preferential risk weighting is determined on the basis of the corresponding Credit Quality Step of the issue in accordance with Article 129(4) CRR, assuming that at least one ECAI rating assessment is available. Accordingly, covered bonds that qualify for Credit Quality Step 1 can benefit from a preferential risk weighting of 10%. If, on the other hand, the creditworthiness of a covered bond corresponds only to Credit Quality Step 2, the risk weighting increases to 20%. This also applies to bonds that qualify for Credit Quality Step 3. With regard to covered bonds issued between 1 January 2008 and 8 July 2022, the requirements of the CRR in force at the time of issue must be met. They are not subject to the requirements of Art. 129(3a) and (3b) CRR. The assignment system applies uniformly.

Risk weighting of covered bonds according to Article 129(4) CRR: necessary conditions met; ECAI rating

Credit Quality		Covered bond rating						
Step	Fitch / S&P	Moody's	DBRS	covered bonds; with rating				
1	AAA bis AA-	Aaa bis Aa3	AAA bis AA (low)	10%				
2	A+ bis A-	A1 bis A3	A (high) bis A (low)	20%				
3	BBB+ bis BBB-	Baa1 bis Baa3	BBB (high) bis BBB (low)	20%				
4	BB+ bis BB-	Ba1 bis Ba3	BB (high) bis BB (low)	50%				
5	B+ bis B-	B1 bis B3	B (high) bis B (low)	50%				
6	≤CCC+	≤Caa1	≤CCC (high)	100%				

Source: Regulation 2016/1799 and 2021/2005, CRR, NORD/LB Markets Strategy & Floor Research

Unrated bonds can also benefit from preferential risk weighting

If a covered bond meets the requirements of the previous paragraph, but does not have a rating by a recognised ECAI, this does not automatically result in an increased risk weighting for the bond. Instead, the senior unsecured credit rating of the issuer must be taken into account in this case. For this purpose, the corresponding Credit Quality Step of unsecured risk positions is first determined and then the relevant covered bond risk weighting is derived from this step. It follows that, in the event that senior unsecured bonds and covered bonds are assigned to the same Credit Quality Step, there will be no regulatory disadvantage due to the lack of rating assessment.

Risk weighting of covered bonds according to Article 129(5) CRR: necessary conditions met; no ECAI rating

Credit Quality		Senior unsecur	ed rating	Risk weighting of		Risk weighting of covered bonds;	
Step	Fitch / S&P	Moody's	DBRS	senior unsecured		without rating	
1	AAA bis AA-	Aaa bis Aa3	AAA bis AA (low)	20%	\rightarrow	10%	
2	A+ bis A-	A1 bis A3	A (high) bis A (low)	50%	\rightarrow	20%	
3	BBB+ bis BBB-	Baa1 bis Baa3	BBB (high) bis BBB (low)	50%	\rightarrow	20%	
4	BB+ bis BB-	Ba1 bis Ba3	BB (high) bis BB (low)	100%	\rightarrow	50%	
5	B+ bis B-	B1 bis B3	B (high) bis B (low)	100%	\rightarrow	50%	
6	≤CCC+	≤Caa1	≤CCC (high)	150%	\rightarrow	100%	

Source: Regulation 2016/1799 and 2021/2005, CRR, NORD/LB Markets Strategy & Floor Research



Risk weighting of covered bonds according to Articles 120 and 121 CRR: necessary conditions not met

Credit Quality Step	Cov Fitch / S&P	ered bond or sov Moody's	vereign rating DBRS	Risk weighting of cov- ered bonds; with rating, Art. 120		Risk weighting of covered bonds; without rating ¹⁾ , Art. 121
				> 3 months residual mty.	≤ 3 months residual mty.	
1	AAA bis AA-	Aaa bis Aa3	AAA bis AA (low)	20%	20%	20%
2	A+ bis A-	A1 bis A3	A (high) bis A (low)	50%	20%	50%
3	BBB+ bis BBB-	Baa1 bis Baa3	BBB (high) bis BBB (low)	50%	20%	100%
4	BB+ bis BB-	Ba1 bis Ba3	BB (high) bis BB (low)	100%	50%	100%
5	B+ bis B-	B1 bis B3	B (high) bis B (low)	100%	50%	100%
6	≤CCC+	≤Caa1	≤CCC (high)	150%	150%	150%

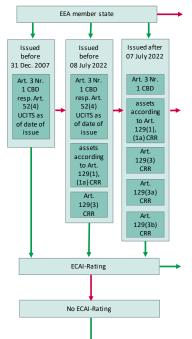
¹⁾ In this case, the risk weighting is assigned on the basis of the credit quality step of the central government in which the institution is domiciled; ²⁾ If both the institution and the central government are not rated, a risk weight of 100% is assigned Source: Regulation 2016/1799 and 2021/2005, CRR, NORD/LB Markets Strategy & Floor Research

Non-EEA covered bonds: Failure to meet the necessary conditions leads to a risk weighting of at least 20%

In addition to the possibilities that the necessary conditions are fulfilled (the bond is CBDcompliant according to Article 3 No. 1; Article 129(3), (3a) and (3b) CRR are fulfilled; it is collateralised with cover assets according to Article 129(1) CRR and an assessment by an ECAI is available or such an assessment is not available), a corresponding classification system also exists for the case that the covered bond is not CBD-compliant. This is relevant, for example, to issues from outside the EEA. In this case, too, rating assessments play a crucial role and have a significant influence on the risk weighting to be applied. The decisive factor in this respect is no longer Article 129 CRR, but Articles 120 and 121 CRR (exposure to rated or unrated institutions). The risk weighting must be determined on the basis of Article 120 CRR if at least one ECAI assessment is available, while Article 121 CRR deals with positions without an ECAI rating. Article 120 CRR also makes a distinction between positions with a residual maturity of more than three months and those with a shorter maturity. Due to the long-term nature of covered bonds, however, we will – unless otherwise stated – only look at determining the risk weighting for maturities of more than three months. Covered bonds that do not meet the requirements of the three necessary conditions have a risk weighting of 20% if they have at least one recognised rating assessment at Credit Quality Step 1. This is also the lowest possible risk weighting for non-EEA covered bonds. If, on the other hand, an ECAI rating assessment is not available for the covered bonds, the relevant risk weighting is determined on the basis of the Credit Quality Step of the central government in which the issuer is domiciled; the risk weighting is higher compared with exposures to central governments in the investment-grade segment.



Determining covered bond risk weights



Risk weighting of covered bonds according to Articles 120 and 121 CRR: necessary conditions <u>not met</u>; <u>with or without</u> ECAI rating

Credit Quality Step	Credit Quality Step	Credit Quality Step	Credit Quality Step
1	AAA- and AA segment	20%	20%
2	A segment	50%	50%
3	BBB segment	50%	100%
4	BB segment	100%	100%
5	B segment	100%	100%
6	≤CCC segment	150%	150%

Risk weighting of covered bonds according to Article 129(4) CRR: necessary conditions <u>met</u>; <u>with</u> ECAI rating

Credit Quality Step	Credit Quality Step	Credit Quality Step
1	AAA and AA segment	10%
2	A segment	20%
3	BBB segment	20%
4	BB segment	50%
5	B segment	50%
6	≤CCC segment	100%

Risk weighting of covered bonds according to Article 129(5) CRR: necessary conditions <u>met</u>; <u>without</u> ECAI rating

Credit Quality Step	Credit Quality Step	Credit Quality Step		Credit Quality Step
1	AAA and AA segment	20%	\rightarrow	10%
2	A segment	50%	\rightarrow	20%
3	BBB segment	50%	\rightarrow	20%
4	BB segment	100%	\rightarrow	50%
5	B segment	100%	\rightarrow	50%
6	≤CCC segment	150%	\rightarrow	100%

Source: Regulation 2016/1799 and 2021/2005, CRR, NORD/LB Markets Strategy & Floor Research Green arrow: condition met, red arrow: condition not met



Regulatory Basis of the liquidity coverage ratio

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

The LCR as liquidity requirement in a stress scenario

Based on the CRR (Art. 412(1) CRR and cont.), the liquidity coverage ratio (LCR) requires credit institutions to hold high-quality liquid assets (HQLA) to compensate for potential net liquidity outflows within a 30-day stress scenario. The relevant requirements to supplement the CRR are laid down in Delegated Regulation 2015/61 and apply to credit institutions supervised under the CRD (2013/36/EU). The LCR Regulation (LCR-R) specifies in particular the eligible assets and the structure of the liquidity buffer. Firstly, a distinction is made between Level 1 and Level 2 assets. Within Level 2, a further distinction is made between Level 2A and Level 2B assets. In addition to the allocation of eligible assets to the aforementioned Level categories, the market values of eligible assets are subject to haircuts in some cases; these are higher for units in undertakings for collective investment (UCI) (see table: Eligible assets, which shows an excerpt of possible assets that could be used).

Calculation of the LCR (Art. 4 LCR-R)

The LCR is calculated using the following formula:

Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research

Disclosure of the LCR

The disclosure shall take into account Article 447 CRR (key metrics) and Articles 433a to 433c CRR (disclosure by "category of institution"), in each case in conjunction with Article 451a CRR (disclosure of liquidity requirements). Article 451a CRR in conjunction with Articles 433a to 433c CRR require large listed institutions to disclose on a quarterly basis, for each quarter of the disclosure period, the average of their LCR, the average or averages of the liquidity coverage ratio, total liquid assets (after applying haircuts), liquidity outflows, inflows and net liquidity outflows, based on the observations of the last twelve months. Large unlisted institutions and small and non-complex listed institutions report semi-annually; all others disclose this information annually.

LCR for different currencies (Art. 415 CRR and Art. 4(5) and 19 LCR-R)

Credit institutions include all items in the calculation, regardless of their denomination. However, calculation of the LCR is mandatory in the reporting currency and in all currencies in which the institution holds more than 5% of its total liabilities or those of the respective liquidity sub-group. In countries where the institution has a significant branch as referred to in Article 51 CRD, a separate LCR must also be calculated in this currency for the relevant liabilities.



Failure to meet the requirements of the LCR (Article 414 CRR, Art. 4 LCR-R)

As a general rule, assets used to calculate the LCR may be sold to cover liquidity outflows. Institutions are allowed to do so even if disposal of the asset during periods of stress leads to an LCR below the required level. If an institution does not meet, or does not expect to meet, the LCR requirements, a plan for the restoration of compliance must be submitted to the competent authority. The competent authorities will then monitor implementation of the plan to restore compliance with requirements.

Liquidity level (Art. 5 LCR-R)

In order to identify a period of stress, Article 5 of the LCR Regulation defines certain indicators of circumstances in which a credit institution may be considered as being subject to stress:

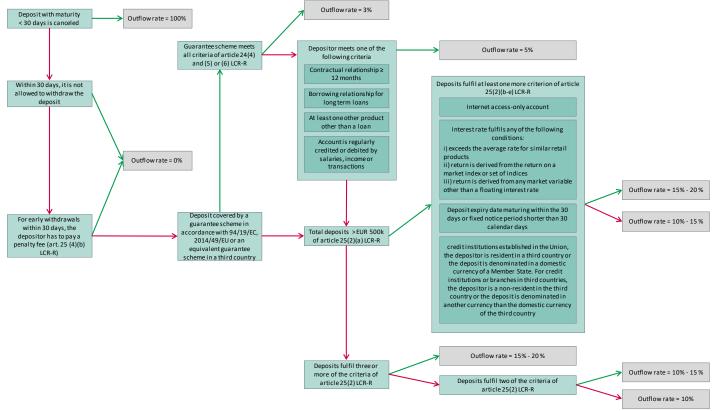
- The run-off of a significant proportion of its retail deposits
- A partial or total loss of unsecured wholesale funding capacity, including wholesale deposits and other sources
- A partial or total loss of secured, short-term funding
- Liquidity outflows as a result of a credit rating downgrade of up to three notches
- Increased market volatility affecting the value of collateral or its quality or creating additional collateral needs
- Unscheduled draws on liquidity and credit facilities
- Potential obligation to buy-back debt or to honour non-contractual obligations

Calculation of net liquidity outflows (Art. 20 LCR-R)

In addition to the classification of assets into liquidity classes, it is important to establish which items are included as cash inflows or outflows in the calculation of net liquidity outflows. Article 20 of the LCR-R basically states that liquidity outflows are deducted from liquidity inflows. The sum shall not be less than zero. The rules for determining liquidity outflows are set out in Articles 22 to 31a of the LCR-R. Liquidity inflows are defined in Articles 32 to 34 LCR-R. The outflow or inflow rates in each case are multiplied by the value of the position, the maximum outflow or inflow amount, or the maturity amount of the next 30 days. The liquidity outflows listed below are not intended to be exhaustive. For example, we have omitted Art. 26 ("Outflows with inter-dependent inflows").



Outflows from retail deposits (Article 24 / 25 LCR-R)



Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: higher outflow rates possible on the instruction of the authority, or due to divergent rates in third countries; green = condition met; red = condition not met

Outflows from operational deposits and other liabilities (Article 27 / 28 LCR-R)

Article	ltem	Rate
28(2)	Liabilities resulting from the institution's own operating expenses	0%
27(2)	Deposits covered by a deposit guarantee scheme, for clearing, custody, cash management or other comparable services	5%
28(1)	Deposits by clients that are non-financial customers, sovereigns, central banks, multilateral development banks, public sector entities, credit unions authorised by a competent authority, personal investment companies or by clients that are deposit brokers (to the extent they do not fall under Art. 27 LCR-R), which are covered by a deposit guarantee scheme	20%
27(1)(a) and (4)	Deposits held in order to obtain clearing, custody, cash management or other comparable services	25%
27(1)(b)	Deposits held within institutional protection schemes or within a group of cooperative credit institutions	25%
27(1)(c), (4), (6)	Deposits held in the context of another established operational relationship	25%
27(1)(d) and (4)	Deposits held to obtain cash clearing, central institution or guarantee scheme services	25%
28(1)	Deposits by clients that are non-financial customers, sovereigns, central banks, multilateral development banks, public sector entities, credit unions authorised by a competent authority, personal investment companies or by clients that are deposit brokers (unless Art. 27 LCR-R applies)	40%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: deposits received as collateral are not covered by the provisions of Articles 24, 25, 27, 28 or 31a LCR-R



Outflows from operational deposits and other liabilities (Article 27 / 28 LCR-R)

Article	Item	Rate
27(3)	Deposits from credit institutions placed at the central institution that are considered as liquid assets	100%
27(5)	Deposits arising out of a correspondent banking relationship or from the provision of prime brokerage services	100%
28(5)	The offsetting balances held in segregated accounts related to client protection regimes imposed by national regulations shall be treated as inflows in accordance with Article 32 and shall be excluded from the stock of liquid assets.	100%
28(6)	Bonds and other debt securities issued by the credit institution (unless the bond is sold exclusively in the retail market and held in a retail account)	100%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: deposits received as collateral are not covered by the provisions of Articles 24, 25, 27, 28 or 31a LCR-R

Outflows arising from liabilities resulting from securities financing transactions and capital market-driven transactions maturing in ≤ 30 days (Article 28 LCR-R)

Article	Collateral	Rate
28(3) (2nd sub- para- graph)	In derogation of Art. 28(3) subparagraph 1, the outflow rate is 0% if the counterparty is the domestic central bank of the credit institution	0%
28(3)(a)	If they are collateralised by assets that would qualify as HQLA 1A (except covered bonds)	0%
28(3)(b)	If they are collateralised by assets that would qualify as HQLA 1B (covered bonds)	7%
28(3)(c)	If they are collateralised by assets that would qualify as HQLA 2A	15%
28(3)(d)	If they are collateralised by assets that would qualify as HQLA 2B as listed in Art. 13(2)(g) i, ii, iv LCR-R	25%
28(3) (3rd sub- para- graph)	In derogation of Art. 28(3) subparagraph 1, the outflow rate is 25% if the outflow rate would require >25%, but the counterparty is an eligible counterparty	25%
28(3)(e)	If they are collateralised by assets that would qualify as HQLA 2B covered bonds	30%
28(3)(f)	If they are collateralised by assets that would qualify as HQLA 2B as listed in Art. 13(2)(g) iii or v LCR-R	35%
28(3)(g)	If they are collateralised by corporate debt securities, shares or certain non-interest-bearing assets (CQS 5 or better) issued by religiously observant credit institutions that would qualify as HQLA 2B (Art. 12(1)(b)(c)(f) LCR-R)	50%
28(3)(h)	If they are collateralised by shares or units in a UCI and would be classified as HQLA, same minimum haircut as set out in Article 15(2) and (3) LCR-R	0-55%
28(3)(i)	If they are collateralised by assets that do not fall under Art. 28(3) a) to h) LCR-R	100%
28(4)	In the case of collateral swaps and similar transactions, maturity \leq 30 calendar days, an outflow is only recognised for the net value if the borrowed asset would be subject to a lower haircut than the lent asset. If the asset is not liquid, 100% is applicable	Difference arising from the haircuts on borrowed and lent as- sets
2nd sub- para- graph	By way of derogation, 0% on the borrowed asset if the counterparty is the domestic central bank	0%
3rd sub- para- graph	By way of derogation, the outflow rate is 25% if the outflow rate would require >25%, but the counterparty is an eligible counterparty	25%
28(7)	In the case of assets borrowed on an unsecured basis (maturity \leq 30 days), unless the credit institution owns the borrowed assets and they are not part of the liquidity buffer	100%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: deposits received as collateral are not covered by the provisions of Articles 24, 25, 27, 28 or 31a LCR-R



Additional outflows (Articles 23, 29 and Art. 30 LCR-R)

Article	Item	Rate
23	In the context of products or services assessed in accordance with Art. 5 LCR-R for the next 30 calender days, any material reputational damage: a) Other off-balance sheet and contingent funding obligations, including uncommitted funding facilities b) Undrawn loans and advances to wholesale counterparties c) Mortgage loans that have been agreed but not yet drawn down d) Credit cards e) Overdrafts f) Planned outflows related to renewal or extension of existing retail or wholesale loans, or the granting of new retail or wholesale loans g) Planned derivatives payables, other than the contracts and credit derivatives listed in Annex II of Regulation (EU) No. 575/2013 h) h) Trade finance off-balance-sheet related products as referred to in Art. 429 CRR and Annex I of Regulation (EU) No. 575/2013 (5% possible if approved by the competent authority)	Case-spe- cific
29	Outflows within a group or an institutional protection scheme – therefore not described in more detail here	Individuell
30(1)	Collateral for derivative interest rate and foreign currency transactions and credit derivatives in the form of HQLA 1B assets as referred to in Article 10(f) LCR-R	10%
30(1)	Collateral for interest rate and foreign currency transactions and credit derivatives (apart from cash and HQLA 1 assets as referred to in Art. 10 LCR-R)	20%
30(12)	Prime brokerage services: where a credit institution has financed the assets of one client by matching them with the short sales of another client, the contingent obligation will apply in this case	50%
30(2)	Collateral or cash outflows due to steps taken by the supervisory authority in the event of deterioration in credit quality	100%
30(3)	Collateral for adverse market conditions of derivatives transactions (30(3) LCR-R in conjunction with Art. 415 CRR and delegated regulation (EU)2017/208)	100%
30(4)	Net liquidity outflow within a 30-day period from interest rate and foreign currency transactions	100%
30(5)	Securities or other assets sold short and to be delivered within 30 days	100%
	(covered by securities financing transaction)	(0%)
30(6)(a)	Excess collateral that can be called at any time	100%
30(6)(b)	Collateral that is due to be posted to a counterparty within 30 days	100%
30(6)(c)	Collateral that would qualify as liquid assets, but which can be substituted by non-liquid assets at any time	100%
30(8) and (10)	Asset-backed securities, covered bonds and structured financing instruments issued by the institution or an SPV; maturity within 30 calendar days	100%
30(9) and (10)	Maturing amount of financing facilities (including asset-backed money market instruments, conduits, securities investment vehicles) or the amount of assets that could potentially be returned	100%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: deposits received as collateral are not covered by the provisions of Articles 24, 25, 27, 28 or 31a LCR-R



Outflows from credit and liquidity facilities and other outflows (Articles 31 and 31a LCR-R)

Article	Committed undrawn credit lines - Maturity/utilisation ≤30 days - in respect of:	Factor
	For all outflows mentioned in Art. 31, the maximum amount due within 30 days is applied and later due dates are not taken into account; For Art. 31(3) to (5) LCR-R, under certain conditions any amounts according to Art. 23 and Art. 9 LCR-R may be deducted from the maximum amount	
31(3)	Retail customers	5%
31(4)	Non-retail, non-financial customers, sovereigns, central banks, multilateral development banks and public sector entities, provided they are <u>not</u> used as a substitute for the customer's normal market access	10%
31(9)	Promotional loans as referred to in Article 31(9) LCR-R may either use a symmetric inflow and outflow procedure (in the case of pass through loans) or treatment by the lender is based on Art. 31(3)(4) LCR-R	0%/ 5%/10%
31(6)	Maximum amount of the undrawn committed liquidity facility that was provided to a securitisation special purpose entity (SSPE) for the purchase of assets from non-financial customers	10%
31(5)	Facilities <u>not</u> for a) retail, b) financial customers, sovereigns, central banks, multilateral development banks and public sector entities, c) financing not as a substitute for the customer's normal market access, when the customer is unable to cover its financing requirements on those markets at that time	30%
31(5)	Personal investment companies	40%
31(8)(a)	Credit institutions, other regulated financial institutions, UCIs and non-open ended investment schemes, insurance undertakings and investment firms	40%
31(7)	Central institutions shall take into account liquidity funding committed to a member credit institution, provided that it qualifies as liquid assets in accordance with Art. 16(2) LCR-R (calculation with committed capital amount)	75%
31(8)(b)	Securitisation special purpose entities other than those referred to in Article 31(6) LCR-R and where there are arrangements under which the credit institution is required to buy or swap assets	100%
31(8)(c)	Financial customers other than those listed in Article 31 (1) to (7), (8a) and (8b) LCR-R	100%
31a(1)	Liabilities becoming due within the next 30 calendar days and not covered by Art. 24 to 31 LCR-R	100%
31a(2)	Net contractual commitments to non-financial customers (all except central banks and financial customers) within the next 30 calendar days, other than commitments referred to in Art. 24 to 31 LCR-R	100%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research; Note: deposits received as collateral are not covered by the provisions of Articles 24, 25, 27, 28 or 31a LCR-R

Other cash outflows

All liquidity outflows not mentioned in Articles 23 - 31 LCR-R that could occur within the next 30 calendar days are weighted at 100%.

Liquidity inflows

The liquidity inflows to be deducted from the liquidity outflows are also calculated by weighting the nominal inflow exposure with an inflow rate. As a general rule, only inflows that are expected within the next 30 days, are contractually agreed and are not considered overdue, and for which the credit institution has no reason to expect non-performance, are taken into account. Assets valued at market value are not included in the LCR calculation, as the market value already prices in future payment flows. Inflows are generally only recognised up to a maximum of 75% of the outflows (Article 33 LCR-R). However, Article 33 of the LCR Regulation allows various exceptions in this respect.



Overview of inflows (Article 32 LCR-R)

Article	Exposures contractually expected/becoming due within 30 days, and are not overdue:	Factor
32(2)(a)	Monies due from central banks and financial customers	100%
32(2)(b)	Monies due from trade finance transactions referred to in Art. 162(3) subparagraph 2 (b) CRR	100%
32(2)(c)	Monies due from securities	100%
32(2)(d)	Monies due from positions in major indexes of equity instruments, unless also recognised as HQLA	100%
32(3)(a) 32(4)	Monies due from trade finance transactions or maturing securities Article 32(3)(a) LCR-R does not apply to payments from securities financing transactions and capital market- driven transactions); Inflows from the release of balances held in segregated accounts in accordance with regulatory requirements for the protection of customer trading assets shall be taken into account in full, provided that those segregated balances are maintained in liquid assets as defined in Title II.	100%
32(3)(a)	Payments for redemption purposes from non-financial customers (payments due from credit institutions	50%
1st sen-	established/sponsored by a central government or regional authority to provide promotional loans, com-	(Propor-
tence	mitments from multilateral development banks or public sector entities; taking into account inflows up to the value of outflows)	tionate)
32(3)(b)	Monies due from collateralised securities financing transactions and capital market-driven transactions: i) If collateralised by an asset that would qualify as HQLA 1A if re-used (except covered bonds referred to in Art. 10(1)(f) LCR-R)	0%
	ii) If collateralised by an asset that would qualify as HQLA 1B if re-used (covered bond)	7%
	iii) If collateralised by an asset that would qualify as HQLA 2A if re-used	15%
	iv) If collateralised by an asset that would qualify as HQLA 2B RMBS if re-used (Art. 13(2)(g)(i), (ii), (iv) LCR-R)	25%
	v) If collateralised by an asset that would qualify as HQLA 2B covered bonds if re-used (Art. 12(1)(e) LCR-R)	30%
	vi) If collateralised by an asset that would qualify as HQLA 2B ABS covered by leasing, corporate financing or consumer loans if re-used (Art. 13(2)(g)(iii) or (v) LCR-R)	35%
	vii) If collateralised by an asset that would qualify as HQLA 2B corporate bond, share, unit, non-interest-bearing assets with credit quality step 5 or better, issued by religiously observant credit institutions, if re-used	50%
	 viii) If collateralised by an asset that would be classified as a share or unit in a UCI (Art. 15(2)(3) LCR-R) on the same level as HQLA ix) If collateralised by an asset not covered by items i to viii above 	0%-55% acc. to Art. 15(2) or (3) 100%
	Use of the collateral to cover a short sale position	0%
32(3)(c)	Monies due from lombard transactions, if collateralised with non-liquid assets	50%
32(3)(d)	Monies due from operating deposits are multiplied by a symmetrical inflow rate, except deposits at the central institution; otherwise the adjacent factor applies	acc. to Art. 27(3), otherwise 5%
32(3)(e)	Collateral swaps: amount by which the liquidity value of the lent assets exceeds that of the borrowed assets (note calculation)	100%
32(3)(f)	Monies due from reverse repos, securities borrowings, collateral swaps used to cover short positions that can be extended beyond 30 days	0%
32(3)(g)	Undrawn credit or liquidity facilities (including those from central banks, and excluding any within protection schemes and promotional loans)	0%
32(3)(h)	Monies due from securities issued by the credit institution itself or by an SPV with which the credit institution has close links, net basis multiplied by rate for the asset	rate for asset acc. to Art. 32
32(3)(i)	Loans without a due date, provided that the contract allows the credit institution to withdraw or to request payment within 30 days	20%
32(5)	Net liquidity inflow from derivative interest rate and foreign currency transactions	100%
32(6)	Monies due from assets that are not reflected in the market value of the asset	100%

Source: LCR-R, NORD/LB Markets Strategy & Floor Research
Note: further special regulations with regard to groups and institutional protection schemes in Article 34 LCR-R



Overview of inflows (Article 32 LCR-R)

Article	Exposures contractually expected/becoming due within 30 days, and are not overdue:	Factor
32(7)	Inflows from any new obligations entered into are not taken into account	-
32(8)	Inflows in the amount of outflows to third countries with transfer restrictions or, if denominated in non-	100%
	convertible currencies	100%

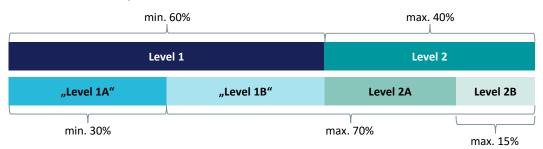
Source: LCR-R, NORD/LB Markets Strategy & Floor Research

Note: further special regulations with regard to groups and institutional protection schemes in Article 34 LCR-R

Composition of the liquidity buffer by asset level (Art. 17 LCR-R)

Once the net outflow for the next 30 days has been determined using the inflows and outflows as described above, the liquidity buffer must be determined. Different liquidity levels are assigned to assets for calculation of the LCR respectively the liquidity buffer. There are certain minimum or maximum ratios for each of these levels (Article 17 LCR-R), at which the respective liquidity level may/must be included in the liquidity buffer. In order to obtain an additional distinction within Level 1 assets for later comments, a modified level classification is defined at this point. This is nevertheless based on the minimum and maximum ratios normally specified by the CRR.

Structure of the LCR portfolio



Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research

LCR portion of covered bonds limited to 70%

With regard to the composition of the LCR portfolio, the requirements stipulate that at least 60% of the liquidity buffer must consist of Level 1 assets. Conversely, it follows that the proportion of Level 2 assets may not exceed 40%. In addition to this initially rough subdivision of the LCR portfolio, there are further restrictions on both Level 1 and Level 2. For example, at least 30% of the overall portfolio must consist of Level 1 assets, but these may not be Level 1 covered bonds. In market practice, a distinction is sometimes made within Level 1 between Level 1A and Level 1B assets (Level 1 covered bonds, since a haircut is mandatory), even if a linguistic distinction of this type does not exist either under the CRR or the LCR Regulation. Since Level 2B assets may account for not more than 15% of the total liquidity buffer, a distinction is also made within Level 2 with regard to the maximum proportion of the overall LCR portfolio. When using covered bonds in the LCR context, it can therefore be stated that they may total a maximum of 70% of the LCR portfolio. As no more than 40% of the total liquidity buffer may consist of Level 2 assets, 30% of the overall portfolio must comprise Level 1 covered bonds. In addition, a maximum of 15% of the assets may be covered bonds that are Level 2B according to the Regulation.



Regulatory

LCR management: Eligible assets Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

	Level 1 assets (in accordance with Article 10 in conjunction with Article 15 LCR Regulation)	Haircut (for units in UCIs
a)	Coins and banknotes	- (0%)
b)	Following exposures to central banks: i) Assets representing claims on or guaranteed by the ECB or an EEA member state's central bank ii) Assets representing claims on or guaranteed by central banks of third countries, provided that they are rated as Credit Quality Step 1 by ECAI iii) Reserves held by the credit institution in a central bank referred to in points (i) and (ii) provided that the credit institution is permitted to withdraw such reserves at any time during stress periods and the conditions for such withdrawal have been specified in an agreement between the relevant	- (0%)
	competent authority and the ECB or the central bank	
c)	Assets representing claims on or guaranteed by the following central or regional governments, local authorities or public sector entities: i) Central government of an EEA member state ii) Central government of a third country, provided that it is rated at least Credit Quality Step 1 iii) Regional governments or local authorities or public sector entities in an EEA member state, provided that they are treated as exposures to the central government of the EEA member state (i.e. risk weighting of 0%) iv) Regional governments or local authorities in a third country of the type referred to in (ii), provided that they are treated as exposures to the central government of the third country (i.e. same risk weighting as central government [0%]) v) Public sector entities provided that they are treated as exposures to the central government of an EEA member state or to one of the regional governments or local authorities referred to in (iii) (i.e. same risk weighting of 0%)	- (5%)
d)	 i) Assets representing claims on or guaranteed by the central government or the central bank of a third country, which are not assigned CQS 1 (rating lower than AA-) ii) Reserves held by the credit institution in a central bank pursuant to (i) and meeting certain conditions 	- (5%)
e)	Assets issued by credit institutions which meet at least one of the following requirements: i) The issuer is a credit institution incorporated or established by the central government of an EEA member state or the regional government or local authority in a member state, the government or local authority is under the legal obligation to protect the economic basis of the credit institution and maintain its financial viability throughout its life-time and any exposure to that regional government or local authority, if applicable, is treated as an exposure to the EEA central government (i.e. RW of 0%) ii) The credit institution provides promotional loans, within the meaning of Article 10(1)(e)(ii)	- (5%)
f)	Certain covered bonds from the EEA which meet all the following criteria: i) Covered bonds within the meaning of Article 3 No. 1 CBD or they were issued before 8 July 2022 and meet the requirements of Art. 52(4) UCITS Directive at the time of issue, with the result that they may be considered for more favourable treatment as a covered bond until maturity ii) Exposures to institutions in the cover pool meet the requirements of Art. 129(1)(c) & 129(1a) CRR iii) Deleted iv) Issue size of at least EUR 500m or equivalent amount in local currency v) Rating: CQS 1 by ECAI; no rating: 10% risk weight according to Art. 129(5) CRR vi) Overcollateralisation of at least 2%	7% (12%)
g)	Assets representing claims on or guaranteed by the multilateral development banks and the international organisations referred to in Article 117(2) and Article 118 CRR	- (5%)

Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research



	Level 2A assets (in accordance with Article 11 in conjunction with Article 15 LCR Regulation)	Haircut (for units in UCIs)		
a)	Assets representing claims on or guaranteed by regional governments, local authorities or public sector	15%		
	entities in an EEA member state, where exposures to them are assigned a risk weighting of 20% pursuant to Art. 115(1)(5) and Art. 116(1)(2)(3) CRR	(20%)		
b)	Assets representing claims on or guaranteed by the central government, central bank or by a regional government, local authority or public sector entity in a third-country , where exposures to them are assigned a risk weighting of 20% pursuant to Art. 114(2) and Art. 115 or Art. 116 CRR			
c)	Certain covered bonds from the <u>EEA</u> which meet the following criteria, among other requirements: i) Covered bonds within the meaning of Article 3 No. 1 of the Covered Bond Directive or they were issued before 8 July 2022 and meet the requirements of Art. 52(4) UCITS Directive in the version applicable at the time of issue, with the result that they may be considered for more favourable treatment as a covered bond until maturity ii) Exposures to institutions in the cover pool meet the requirements set out in Articles 129(1)(c) and 129(1a) CRR iii) Deleted iv) Issue size of at least EUR 250m or equivalent amount in local currency v) Rating: min. CQS 2 by ECAI; no rating: 20% risk weight according to Art. 129(5) CRR vi) Overcollateralisation of at least 7%; min. 2% if CQS 1 rating is applicable, provided all requirements referred to in Art. 10 (1) LCR Regulation are met, with the exception of Art. 10(1)(f)(iv)			
d)	Certain covered bonds issued by credit institutions in third countries which meet all of the following criteria: i) Issued by a credit institution, or by a wholly owned subsidiary of a credit institution which guarantees the issue, in accordance with the national law of the third country ii) Issuer and bonds are subject to equivalent public supervision for the protection of the bondholders, and the supervisory and regulatory provisions are equivalent to those in the EU iii) Cover pool consists of assets corresponding to one or more of the exposure types referred to in Article 129(1)(b)(d)(f) and (g) CRR. If the pool consists of real estate loans, Article 6(2)(3)(a) and (5) of the CB Directive must be complied with iv) Exposures to institutions comply with the requirements of Article 129(1)(c) or 129(1)(a) CRR v) Transparency requirement referred to in Art. 14 CB Directive is met vi) Rating: CQS 1 by ECAI; no rating: 10% risk weight according to Art. 129(5) CRR vii) Overcollateralisation of at least 7%; minimum 2% with value of at least EUR 500m or equivalent value in local currency			
e)	Corporate bonds which meet all of the following requirements: i) Minimum rating: CQS 1 by ECAI ii) Issue size of at least EUR 250m or equivalent amount in local currency iii) Residual term to maturity of the securities at the time of issuance is max. 10 years	15% (20%)		

Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research



	Level 2B assets (in accordance with Article 12 in conjunction with Article 15 LCR Regulation)	Haircut (for units in UCIs)
a)	Exposures in the form of ABS under certain conditions (in accordance with Art. 13 LCR Regulation)	
b)	Corporate bonds which meet all of the following requirements: i) Minimum rating: CQS 3 by ECAI ii) Issue size of at least EUR 250m or equivalent amount in local currency iii) Residual term to maturity of the securities at the time of issuance is max. 10 years	50% (55%)
c)	Shares or units meeting the conditions of Art. 12(1)(c) of the LCR Regulation i) Component of a major share index ii) Denomination in home currency, otherwise Level 2B asset (limit on amount) iii) They are also considered a reliable source of liquidity in stress periods (requirement: in a 30-day stress period, the market value does not fall by more than 40% or 40 percentage points)	
d)	Restricted-use committed liquidity facilities provided by the ECB, the central bank of an EEA member state or, under certain conditions, a third country, provided the provisions of Art. 14 LCR Regulation are met	
e)	Certain covered bonds from the EEA which meet the following criteria, among other requirements: i) Covered bonds within the meaning of Article 3 No. 1 of the Covered Bond Directive or they were issued before 8 July 2022 and meet the requirements of Art. 52(4) UCITS Directive in the version applicable at the time of issue, with the result that they may be considered for more favourable treatment as a covered bond until maturity ii) Deleted iii) Deleted iv) Issue size of at least EUR 250m or equivalent amount in local currency v) Cover assets comply with Article 129(1)(a), (d)(i) and (e) CRR vi) Cover assets are assigned a risk weighting of max. 35% in accordance with Art. 125 CRR vii) Overcollateralisation of at least 10% viii) Monthly disclosure regarding required overcollateralisation of min. 10%	30% (35%)
f)	Exemption for religiously observant credit institutions: certain non-interest-bearing assets representing claims on or guaranteed by central banks, central governments, regional or local authorities or public sector entities, provided at least CQS 5 was assigned by ECAI	50% (55%)
	Level 2B assets (in accordance with Articles 13 to 16 in conjunction with Article 15 LCR Regulation)	Haircut (for units in UCIs)
	We will not go into detail about the indicated articles. Article 13 Level 2B securitisations (explanatory notes on Art. 12(1)(a) LCR-R) Article 14 Restricted-use committed liquidity facilities (explanatory notes on Art. 12(1)d) LCR-R) Article 15 CIUs Article 16 Deposits and other funding in cooperative networks and institutional protection schemes	0-55% 25%

Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research



Regulatory

Covered Bonds within the framework of LCR management

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Dynamic criteria for covered bonds under the LCR

While a large proportion of the assets eligible for LCR management are classified statically, covered bonds are subject to dynamic criteria. Over time, the allocation of an issue to a specific Level category may change, which in turn may lead to the need for constant monitoring. In practice, fulfilment of the transparency criteria laid down in Article 14 of the Covered Bond Directive and/or the national legislation based on Art. 14 CBD turns out to be the trouble spot. This is because extensive data must be provided on the issuer side at least every quarter, and the investor must also be able to prove this to the supervisory authority. In addition to reviewing the information provided in cover pool reporting on outstanding covered bonds and their cover pools, the relevant ratings should also be constantly monitored with regard to the dynamic criteria for covered bonds, as rating changes of just one notch may have a direct impact on the LCR classification. In addition to the change in a rating, the addition or discontinuation of a rating assessment can also have an impact on the LCR classification. This is why we use not only the ratings of Moody's, Fitch and S&P but also those of DBRS.

Tabular overview of the regulatory classification of covered bonds

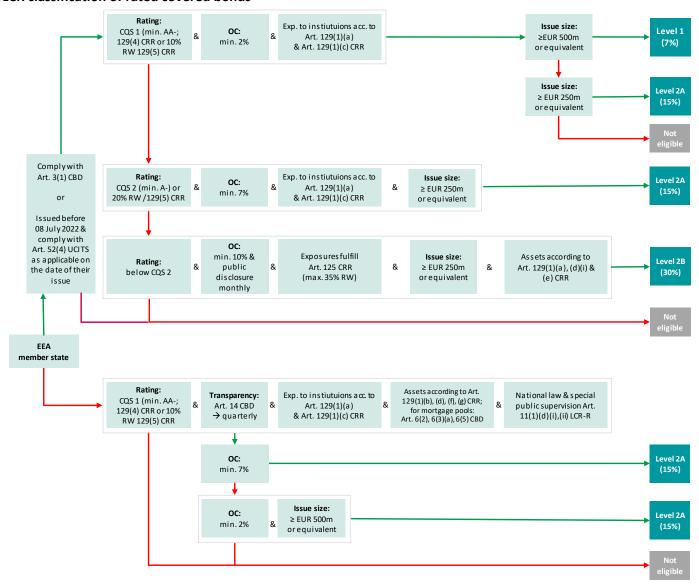
As a basis for the following analysis, we refer to the bonds listed in the iBoxx EUR Covered and assign them to what we consider to be the relevant LCR category in each case as well as the haircut derived from it. For this purpose, we have reviewed the relevant pool reports to ensure that their content is complete on the basis of the provisions in Article 129 CRR as well as covered bonds from third countries Article 14 CBD and have summarised the results initially at programme level. In addition to the links to the relevant reports on the issuers' websites, the list also includes the ratings provided by the rating agencies mentioned in the previous section, a statement on the legal framework for the issue, and the overcollateralisation of the relevant programme. The table in our Covered Bond Special - Risk Weights and LCR Levels of Covered Bonds, which contains our assessment of the LCR level and the risk weight according to CRR as well as further information at ISIN level, provides an even more detailed overview. Since the credit quality step (CQS) of the respective bond is relevant for the assessment of the LCR level as well as the relevant risk weight, an assessment in this regard can also be taken from the list. In addition to the outstanding volume and the type of cover assets, the table also contains the respective repayment structure of a covered bond. Issues from the European Economic Area (EEA) benefit from preferential regulatory capital treatment. For this reason, we indicate the affiliation of an issue or issuer to the jurisdiction of the European Central Bank (Eurozone), the European Economic Area and the G10 countries (relevant, among other things, for repo eligibility in transactions with the ECB).



Numerous criteria for eligible covered bonds

As mentioned above, covered bonds may in principle reach any of the three LCR levels. In every case, there are numerous criteria that an issue must meet in order to achieve the status of an eligible asset. While non-compliance with some criteria automatically results in exclusion from eligible assets, other requirements take the form of scores or tiers. For example, covered bonds whose reporting (Art. 14 CBD) does not comply with the Covered Bond Directive may under no circumstances be used as LCR assets. With regard to the issue volume or rating assessment, in contrast, the LCR system stipulates requirements in tiered form. This results in numerous paths on the way to the final LCR assessment of an issue. In order to approach this quite complex procedure, we will deal in the following with each of the eligibility criteria, which we have presented graphically in the form of a decision tree.

LCR classification of rated covered bonds



Source: Delegated Regulation 2015/61, NORD/LB Markets Strategy & Floor Research; green = condition met; red = condition not met



What does "in compliance with Art. 3 CBD" mean?

In order to be recognised as an LCR-eligible covered bond (apart from the criteria listed above), the LCR Regulation stipulates that the covered bond must either be a bond within the meaning of Art. 3(1) CBD, or the security was issued before 8 July 2022 and meets the requirements of Art. 52(4) UCITS in force at that time. However, reference is also made to the CBD in the UCITS and the CRR. As a result, there are also changes to "old bonds" in order to remain LCR-eligible. This requires a look at the transitional rules of the CBD: Art. 30 CBD reads as follows: "Member States shall ensure that covered bonds issued before 8 July 2022 that comply with the requirements laid down in Article 52(4) of Directive 2009/65/EC, as applicable on the date of their issue, are not subject to the requirements set out in Articles 5 to 12 and Articles 15, 16, 17 and 19 of this Directive, but may continue to be referred to as covered bonds in accordance with this Directive until their maturity."

Digression: EU Covered Bond Directive

Article	Description	Content / Remarks
1	Subject matter of the Directive	 Issuing requirements and structural features of covered bonds Uniform requirements for national supervisory authorities Publication requirements in relation to covered bonds
2	Scope of the Directive	Covered bonds issued by credit institutions established in the European Union
3	Definitions	 Definitions relevant to the Directive Total of 22 definitions of terms (including covered bond, cover pool, cover assets)
4	Dual recourse	 Dual recourse mechanism (allowing claims against both the covered bond issuer and the cover assets) is a core characteristic of the covered bond Claim against the credit institution; in the event of insolvency or resolution of the issuer, a priority claim against the cover pool Claim against the insolvency estate
5	Bankruptcy remoteness of covered bonds	 Ensuring that CB claims are not subject to automatic acceleration in the event of insolvency or resolution of the issuer Ensuring compliance with payment flows established by contract
6	Eligible assets	 Collateralisation at all times through cover assets of very high quality CRR-compliant cover assets and other defined high-quality cover assets as well as public undertakings (in accordance with 2006/111/EC)
7	Collateral assets located outside the Union	 National legislators' option with regard to including assets that are secured by collateral assets located outside the Union Must be formulated in accordance with Article 6 and legal recourse secured
8	Intragroup pooled covered bond structures	 Possible to use internal CB issues as collateral for external CB issues (investors outside the group) Cover assets are recorded on the balance sheet of the issuer of the external CB
9	Joint funding	 The Directive allows issuers to pool cover assets from different institutions The purpose here is to enable smaller credit institutions to access the market
10	Composition of the cover pool	 Requirement to lay down rules on the composition of cover pools No explicit requirement to achieve homogeneity
11	Derivative contracts in the cover pool	 Derivative contracts may be included in the cover pool for hedging purposes Derivative contracts are segregated in accordance with Article 12 CBD
12	Segregation of cover assets in the cover pool	 Specification of requirements relating to the segregation of assets Cover assets must be identifiable and requirements must apply to all assets in the cover pool
13	Cover pool monitor	 National legislators can enshrine cover pool monitors in law Criteria relating to the cover pool monitor's responsibilities and duties for monitoring the pool

Source: Directive 2019/2162, NORD/LB Markets Strategy & Floor Research



Digression: EU Covered Bond Directive - (CONTINUED)

Article Description Content / Remarks				
7 11 41 41 4	2000.174.011	On a quarterly basis: Mandatory transparency of the cover pool, including reporting		
14	Investor information	 Among others: publication of an ISIN list for the covered bonds issued under the programme, geographical distribution and type of cover assets, their loan size and valuation method 		
		Requirements for nominal minimum overcollateralisation (nominal principle)		
15	Coverage requirements	• Member States may allow for other principles of calculation, provided that they do not result in a higher ratio of coverage than that calculated under the nominal principle		
16	Requirement for a cover	Cover pool liquidity buffer: to cover max. cum. net liquidity outflow over the next 180 days		
	pool liquidity buffer Conditions for extendable	Possible double burden removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of Legislature removed by Regulation 2022/786 amending the LCR Notice of LCR Noti		
17	maturity structures	 National legislators may allow for the issue of CBs with extendable maturity structures Extension subject to objective triggers enshrined in law 		
	matanty on actained	The issue of covered bonds is subject to covered bond public supervision		
10	Covered bond public	Tasks of supervision include: Supervision of CB issuance, compliance with legislation,		
18	supervision	sanctioning powers		
		Ensuring aspects such as independence, expertise, resources and powers		
	D	CB issuers must obtain permission from the competent supervisory authority before issuing		
19	Permission for covered bond programmes	covered bonds under a programme		
	bolia programmes	 Issuer must have adequate organisational structures, processes and methodologies in place to protect covered bond investors 		
	Covered bond public super-	Ensuring that the rights assured to investors are preserved		
20	vision in the event of insol-	In addition, it is the national legislator's duty to require the appointment of a special		
	vency or resolution	administrator in the event of insolvency or resolution		
21	Reporting to the competent			
21	authorities	Also obliged to report in the event of insolvency or resolution		
22	Powers of competent au-	Supervisory authority to be granted appropriate powers to protect investors		
	thorities	Duty to grant or refuse permission to conduct covered bond business Catablishing appropriate penalties and administrative measures for breaches of CR and		
23	Administrative penalties and other administrative	 Establishing appropriate penalties and administrative measures for breaches of CB and Covered Bond issuer requirements 		
23	measures	Extent of the penalty: proportional to the breach and deterrent effect		
24	Publication of administra-	Publication of penalties/other administrative measures on the official websites of the		
24	tive penalties and measures	competent national authorities and duty to report to EBA		
25	Cooperation obligations	Close cooperation between the competent and the national banking supervisory authority		
		Sharing of information with both the EBA and other national supervisory authorities		
		 Accessibility of legal texts, guidelines and regulations by the competent authorities on their official websites 		
26	Disclosure requirements	Overview of institutions permitted to issue Covered Bonds		
		• List of issuers that are entitled to use one of the labels (i.e. 'European Covered Bond')		
		Annual reporting to EBA on covered bonds and on institutions authorised to issue them		
27	Labelling	If the covered bonds are appropriately structured, competent authorities may grant the right		
2,	_	to use the label "European covered bond" or "European covered bond (premium)".		
28	Amendment to Directive 2009/65/EC (UCITS)	Reference to Directive and amendment		
29	Amendment to Directive 2014/59/EU (BRRD)	Reference to Directive and amendment		
30	Transitional measures	• "Grandfathering" and taps of CBs issued before 8 July 2022 and comply with certain criteria		
		Report of the EU Commission in coordination with the EBA by 08.07.2024 regarding:		
21	Doubous and remarks	- an equivalence regime and, if necessary, a legislative proposal for third countries		
31	Reviews and reports	 investor protection (by 08.07.2025) risks and benefits arising of CBs with maturity deferrals and, if necessary Legislative proposal 		
		- the introduction of European Secured Notes (ESN)		
22	- ···	Transposition into national law by 08.07.2021 and application as of 08.07.2022		
32	Transposition	Report of the text of the national laws to the EU Commission		
33	Entry into force	• Entry into force on 20th day following that of its publication in the Official Journal of the Euro-		
		pean Union		
34	Addressees	• Member States		

Source: Directive 2019/2162, NORD/LB Markets Strategy & Floor Research



General distinction between EEA and non-EEA covered bonds

The requirements to be met by Level 1, Level 2A and Level 2B assets can be found in Articles 10 to 12 of the LCR Regulation. Since the requirements of the Delegated Regulation are EEA-relevant, a general distinction is also made in the requirements for covered bonds between issues from the EEA and those issued by entities from third countries. For example, EEA bonds can generally be considered both as Level 1 assets and as the two sub-divisions of Level 2. Covered bonds from third countries can only be assigned to Level 2A if they are eligible as LCR assets.

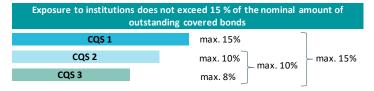
Article 129(4) CRR and Article 129(5) CRR

Covered bonds from member states of the EEA must comply with the Covered Bond Directive in order to qualify for treatment under Articles 129(4) or 129(5) CRR, or comply with Art. 129(3), (3a) and (3b) CRR in order to be eligible as an LCR asset (with the date of issue also playing a role in this respect). Alternatively, in cases where bonds were issued before 8 July 2022, these must comply with Art. 52(4) UCITS in the version applicable on the date of issue instead of the CBD. The Covered Bond Directive defines requirements for covered bonds, while Art. 129 CRR additionally limits the type of cover assets, defines certain minimum requirements for overcollateralisation, and so on. In contrast, paragraphs 4 and 5 of Article 129 CRR describe the requirements to be met by covered bonds in order to benefit from a preferential risk weighting. Paragraph 4 deals with bonds that have a rating assessment, while paragraph 5 deals with bonds that do not have a rating. If a covered bond issued in the EEA does not comply with Covered Bond Directive Art. 3 No. 1, and does not meet the requirements of the Directive nor those of Article 129(4) or Article 129(5) of the CRR, it cannot be used as HQLA in the context of LCR management.

Article 129(1)(c) CRR in conjunction with Article 129(1a) CRR

Article 129(1) (c) in conjunction with Article 129(1a) CRR is part of the requirements for eligible cover assets. Specifically, this concerns substitute cover assets in the form of exposures to credit institutions, which are generally limited to 15% of the outstanding covered bond volume. Exposures to institutions that qualify for Credit Quality Step 1 (CQS 1) or 2 are generally permitted. Exposures to institutions that qualify for CQS3 may only include up to a maximum of 8% of the nominal amount of outstanding covered bonds, subject to the following conditions: i) original maturity not exceeding 100 days, provided that the deposits meet the requirements of the CBD, ii) derivative contracts that comply with Art. 11(1) of the CBD (minimum requirements for derivatives in the cover pool). These articles must be complied with by Level 1 covered bonds and by Level 2A covered bonds, irrespective of whether the covered bond is issued in the EEA or a third country.

Exposures to credit institutions in the cover pool



Source: Delegated Regulation 575/2013, NORD/LB Markets Strategy & Floor Research



Article 14 CBD: transparency requirements for covered bond programmes

As covered bonds within the meaning of Art. 3 No. 1 of the Covered Bond Directive, the securities must consequently meet the transparency requirements set out in Art. 14 CBD. For recognition as LCR Level 2A, however, this also applies to covered bonds from third countries; for this purpose, Art. 14 CBD was explicitly included as a requirement in Article 11(1d)(v) of LCR Regulation 2015/61. As a result, it applies equally to all levels, so that corresponding covered bonds can be used as HQLA in the context of LCR management. In order to benefit from preferential regulatory treatment, a covered bond investor must be able to demonstrate to the relevant supervisory authority that it has a minimum level of information regarding its investment. Accordingly, the following information must be provided at least on a quarterly basis:

- i) Value of the cover pool and outstanding covered bonds
- ii) A list of ISINs for all issues made under this programme to which an ISIN was assigned
- iii) Geographical distribution and type of cover assets, loan size and valuation method
- iv) Information on market risk, including interest rate and currency risk, as well as credit and liquidity risks
- v) Maturity structure of the cover assets and the covered bonds, which may include an overview of the triggers for maturity extension
- vi) Level of required and available cover, and the level of statutory, contractual and voluntary overcollateralisation
- vii) Percentage of loans considered to be in default as defined in Article 178 CRR (NPL), and in any case of loans more than 90 days past due.

For issues prior to July 08, 2022, Art. 52(4) UCITS applies at the time of issue, whereby the LCR-R requires the transparency requirement from Art. 14 CBD, so that this must also be fulfilled for "old bonds", which also comes from Art. 30 CBD. In addition, covered bonds of level 2B are subject to a monthly transparency requirement for overcollateralization.

Credit Quality Steps as a vehicle for assessing creditworthiness

Rating assessments play a particularly important role in determining the LCR level of covered bonds. Credit assessments are taken into account with the help of the Credit Quality Step system, which is defined in <u>Regulation 2016/1799</u>. A total of six different credit rating categories are assigned through ratings issued by recognised <u>External Credit Assessment Institutions (ECAI)</u> (see: <u>Mapping of rating assessments</u>).



The Credit Quality Step system is based on Art. 138 CRR

While categories 1 to 3 are assigned to the investment grade segment, categories 4 to 6 are used for non-investment grade credit ratings. In principle, risk positions may have more than one ECAI rating. This means that if more than one rating is used to determine the Credit Quality Step, further mapping actions are necessary (depending on the context, we therefore present the table below with corresponding text passages once again). Irrespective of the number of available ratings, <u>Article 138 CRR</u> is key to determining the Credit Quality Step. If two ECAI ratings are available for a risk position, the applicable rating shall be the one resulting in the higher of the two possible risk weightings, if the two ratings differ. A higher risk weighting is equivalent to a lower credit rating. In this respect, we understand an AAequivalent rating to be lower than an AAA-equivalent rating. If more than two ratings are available for a risk position, the two ratings resulting in the lowest risk weighting, i.e. the two highest ratings, are applicable. If these two assessments differ from each other, the Credit Quality Step is determined on the basis of the rating (out of these two ratings) that results in the higher risk weighting. It follows from the requirements of Article 138 CRR that only the two highest ratings, if available, are relevant to determining the Credit Quality Step, even if a position has more than two recognised ratings. The resulting simplification of CQS provisions is shown in the following table; no distinction is made with regard to the rating grades of individual agencies. Mapping of these equivalence ratings is shown in the Mapping of rating assessments table.

Determining the Credit Quality Step for more than one recognised rating assessment

	Rating 2	CQS 1			CQS 2			CQS 3			
Rating 1		AAA	AA+	AA	AA-	A+	Α	A-	BBB+	BBB	BBB-
	AAA										
COC 1	AA+	Credit Quality			Cre	edit Qua	lity	Credit Quality			
CQS 1	AA		Ste	p 1			Step 2			Step 3	
	AA-										
	A+		Crodit	Quality		Cri	odit Ous	di+v	Cro	di+ Oua	lity
CQS 2	Α			•		Credit Quality		Credit Quality		iity	
	A-		Ste	p 2		Step 2			Step 3		
	BBB+		Crodit	Ouglity		Cri	odit Ous	di+v	Cro	dit Ous	lity
CQS 3	BBB		Credit Quality		Credit Quality		Credit Quality		iity		
	BBB-		Ste	p 3		Step 3			Step 3		

Source: Regulation 2016/1799 and 2021/2005, Regulation 575/2013 (Art. 138), NORD/LB Markets Strategy & Floor Research

LCR-eligible covered bonds and credit rating assessments

As regards ratings, covered bonds also have to fulfil certain requirements in order to be deemed LCR-eligible. Only level 2B covered bonds are not subject to any requirements in terms of credit ratings. For the remaining levels, a distinction can firstly be made between covered bonds with or without a corresponding ECAI rating. Especially when combined with the issuance volume requirements for LCR-eligible covered bonds, it can be said that unrated covered bonds in the publicly placed benchmark/sub-benchmark bond segment are comparatively rare. However, the LCR Directive does provide an option for acquiring status as an LCR asset in these cases. Given the limited prevalence of such securities, we shall look at the system for unrated papers in the next but one paragraph, merely for the sake of completeness, and then, for reasons of market practice, concentrate solely on rated covered bonds.



Rating requirements for covered bonds with ECAI rating

With regard to the rating requirements for covered bonds, a fundamental distinction must first be made between issues from third countries and those from the EEA. While covered bonds issued by a third country issuer must comply with Credit Quality Step 1 in order to be classified as an eligible asset for the purposes of LCR management, EEA bonds are not subject to a mandatory requirement of this type. Instead, in the case of issues from the EEA, creditworthiness is taken into account as a criterion in three tiers. In order to be classified as a Level 1 asset, bonds must meet the requirements of CQS 1. Nevertheless, being included as a CQS 1 asset does not automatically lead to classification as a Level 1 asset, as the issue must also have a volume of at least EUR 500m and feature overcollateralisation of 2%. If, on the other hand, it is a sub-benchmark issue (issuance volume: EUR ≥250m up to EUR <500m), a CQS 1 assessment only results in Level 2A classification. The same applies to CQS 2 subbenchmarks that are overcollateralised by a minimum of 7% instead of 2%. Covered bonds with a rating below Credit Quality Step 2 or without a rating can at best only be assigned to Level 2B.

Rating requirements for covered bonds without an ECAI rating

Covered bonds without an ECAI rating can also be classified as LCR-asset under certain conditions. In the event that an issue does not have an ECAI rating, the <u>LCR Regulation</u> always refers to Article 129(5) CRR, which is used to <u>determine the risk weightings of unrated covered bonds</u>. In our opinion, however, in the case of determining the LCR level, Article 129(5) CRR must be considered separately from the other requirements of Article 129 CRR, since this part of the Article is also decisive for covered bonds from third countries. Risk weights continue to be determined based on Article 129 CRR as a whole. If an EEA issue does not have a rating, but meets the other requirements, the bond can still be classified as Level 1 if it is assigned a risk weighting of 10% according to the provisions of Article 129(5) CRR. A preferential risk weighting of 10% therefore acts as a substitute for a CQS 1 ECAI rating.

Rating requirements for third-country covered bonds without an ECAI rating

The same applies to issues from third countries, as these must also comply with CQS 1 if a rating is available. In contrast to EEA bonds, however, they can only reach Level 2A. If a rating of at least CQS 2 is required, however, an unrated covered bond must be assigned a risk weight of 20% as laid down in Article 129(5) CRR.

Issue volume: different treatment of EEA and non-EEA bonds

Certain requirements must also be met with regard to the issue volume of a bond, but these also have different implications. For example, in order to be Level 1 eligible, the issue size of EEA bonds must be at least EUR 500m or its equivalent in the local currency. In order to remain eligible as a Level 2 (2A or 2B) asset, the volume must be at least EUR 250m or equivalent. Conversely, bonds issued by issuers domiciled outside the EEA are not subject to any special issue volume requirements. In the case of issues with an equivalent volume of at least EUR 500m, however, they benefit from preferential treatment with regard to the required overcollateralisation (2% overcollateralisation instead of 7%). While EEA bonds must therefore have a minimum volume of EUR 250m in order to be recognised as an LCR asset, this requirement does not apply to covered bonds from third countries. In general, all requirements relating to the issue volume refer to a figure that is equivalent to the required EUR volume.



Overcollateralisation: three different minimum levels of overcollateralisation

As the core characteristic of a covered bond, great importance is attached to the level of overcollateralisation, also in relation to its eligibility as an LCR asset. The LCR Regulation distinguishes between the three overcollateralisation levels: i) 2%, ii) 7% and iii) 10%. A minimum overcollateralisation of 2% is required in cases where the issue volume of EEA and non-EEA CQS 1 bonds is at least EUR 500m. In addition, CQS 2 sub-benchmarks from the EEA are also LCR-eligible, starting from an overcollateralisation rate of 2%. However, if the volume required for non-EEA bonds is less than EUR 500m, overcollateralisation of 7% is required. The same applies to EEA bonds of CQS 2 level that are assigned to the sub-benchmark format. Since Level 2B covered bonds, as mentioned above, do not necessarily need to have a rating assessment, these assets are subject to increased requirements. In addition to quarterly reporting (now required in all level classes), they must also have overcollateralisation of at least 10%. Furthermore, compliance with the overcollateralisation requirement must be disclosed by the issuer on a monthly basis.

Special requirements for third-country issues

As is the case with Level 2B covered bonds, non-EEA bonds must meet additional requirements to be recognised as an LCR asset. Article 11 of the LCR Regulation stipulates that bonds from outside the EEA must be issued in accordance with the national legislation of the third country. The issuer must also be a credit institution or a wholly owned subsidiary of a credit institution which guarantees the issue. Furthermore, the bond must have a dual recourse, i.e. it must enable investors to have recourse to the cover pool in addition to the receivables from the credit institution in the event of the issuer's insolvency. In addition, the issuer and the covered bonds must be subject to separate supervision; these arrangements must be at least equivalent to those applied in the EEA.

Special requirements for risk exposures an issues from third-countries

Like Level 1 and 2A EEA bonds, third-country issues must meet the requirements of Article 129(1)(c) and 129 (1a) CRR, but at the same time, like Level 1 covered bonds, may also benefit from the exemptions in Article 129(1a). In addition, cover assets for bonds not issued in the EEA are limited to those referred to in Article 129(1)(b), (d), (f) and (g) CRR. Overall, in addition to the assets referred to in Article 129(1)(c) and (1a), the eligible cover assets of issues from third countries include residential property (section d), commercial immovable property (section f) and loans secured by maritime liens on ships (section g). Collateralisation by public-sector collateral is also possible and follows the requirements specified in Article 129(1)(b). Accordingly, exposures to central governments and central banks from third countries, multilateral development banks and international organisations that qualify for Credit Quality Step 1 are eligible, as well as risk positions guaranteed by these institutions. In addition, exposures to public sector entities as well as regional or local authorities are also eligible if they meet further requirements. If, on the other hand, risk positions from third countries that qualify as Credit Quality Step 2 are involved, the share of these assets is limited to 20% of the nominal amount of outstanding covered bonds (However, this limit also applies to EEA bonds). Where cover assets are loans secured by immovable property, the requirements of Articles 208 and 229(1) CRR must also be met.



Additional requirements for Level 2B covered bonds

Although Level 2B covered bonds are regarded as HQLA, they differ from Level 1 and 2A assets in terms of quality and/or liquidity. This is why the regulator has formulated additional requirements in this regard. As a result, the cover assets in question are limited to those referred to in Article 129(1)(a), (d)(i) and (e). The CRR Article 129(1)(a) includes exposures to the public sector within Member States, consisting of (i) central governments; (ii) ESCB central banks (European System of Central Banks); (iii) public sector entities; or (iv) regional governments or local authorities. Furthermore, these assets are eligible as cover assets for Level 2B covered bonds that are guaranteed by one of the aforementioned institutions. For covered bonds backed by residential property loans, Article 129(1)(d) and (e) is also relevant as it lays down the requirements for this form of cover asset. EEA covered bonds with a rating lower than CQS 2 (or without a rating) may additionally only have cover assets that allow a risk weighting of 35% or lower. Article 125 CRR allows a 35% risk weighting for exposures that are fully collateralised by residential property which is or shall be occupied or let by the owner.



Regulatory Regulatory classification: issuers (iBoxx EUR Covered) Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Mortgages AAA / Aaa / - / AAA 46.7% Level 2A / 15% CANADIAN IMPERIAL BANK Mortgages AAA / Aaa / - / 34.9% ED CAISSES DESJARDINS Mortgages AAA / Aaa / - / 31.4% Level 2A / 15% HSBC BANK CANADA Mortgages AAA / Aaa / - / 84.7% Level 2A / 15% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 69.9% KOYAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% Level 2A / 15% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% Level 2A / 15% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% Level 2A / 15%							
BANK OF QUEENSLAND LITD Mortrages	Australia	Cover Pool		ОС	Law	Scope CBD	-
COMMONWEALTH BANK AUST Mortagees AAA / Aaa / - / 146.0%	AUST & NZ BANKING GROUP	<u>Mortgages</u>	AAA / Aaa / - / -	33.7%	\checkmark	×	Level 2A / 15%
MACQUARIE BANK LTD	BANK OF QUEENSLAND LTD	<u>Mortgages</u>	AAA / Aaa / - / -	101.2%	\checkmark	×	Level 2A / 15%
NATIONAL AUSTRALIA BANK Mortsages AAA / Aaa / -/ 21.8% V x Level 2A / 15% WESTPAC BANKING CORP Mortsages AAA / Aaa / -/ 21.8% V x Level 2A / 15% Evel 2A / 15% Evel 2A / 15% WESTPAC BANKING CORP Mortsages -/ Aaa / -/ 8.7% V V Level 1.7% Level 1	COMMONWEALTH BANK AUST	<u>Mortgages</u>	AAA / Aaa / - / -	18.5%	\checkmark	×	Level 2A / 15%
Austria	MACQUARIE BANK LTD	<u>Mortgages</u>	AAA / Aaa / - / -	146.0%	\checkmark	×	Level 2A / 15%
Austria Cover Pool Rating Filich/Moody/s/\$88/DBRS OC Law Scope CBD LCR level Haircut	NATIONAL AUSTRALIA BANK	<u>Mortgages</u>	AAA / Aaa / - / -	35.2%	\checkmark	×	Level 2A / 15%
BAWAG P.S.K. Mortgages	WESTPAC BANKING CORP	<u>Mortgages</u>	AAA / Aaa / - / -	21.8%	✓	×	Level 2A / 15%
BAWAG P.S.K. Public Loans -/ Aaa / -/ 36.5% V Level 1 / 7%	Austria	Cover Pool		ос	Law	Scope CBD	
ERSTE GROUP BANK AG MOTBARES - / Aaa / -/ 32.7%	BAWAG P.S.K.	<u>Mortgages</u>	- / Aaa / - / -	8.7%	✓	✓	Level 1 / 7%
HYPO NOE LB NOE WIEN AG	BAWAG P.S.K.	Public Loans	- / Aaa / - / -	36.5%	✓	✓	Level 1 / 7%
HYPO NOE LB NOE WIEN AG	ERSTE GROUP BANK AG	Mortgages	- / Aaa / - / -	32.7%	✓	✓	Level 1 / 7%
HYPO TIROL BANK AG	HYPO NOE LB NOE WIEN AG	Mortgages	- / Aa1 / - / -	16.1%	✓	✓	Level 1 / 7%
HYPO TIROL BANK AG					✓	✓	· ·
HYPO VORARLBERG BANK AG Mortgages - / Aaa / - / 28.8% V Level 1 / 7%					✓	✓	· ·
RAIFFEISEN BANK INTL Mortgages - /Aa1/-/- 28.5%					✓	✓	•
RAIFFEISEN LB NIEDEROEST RAIFFEISEN LB STEIERMARK RAIFFEISEN LB STEIERMARK MOTTRARES -/ Aaa / -/- 25.9%					✓	✓	· ·
RAIFFEISEN LB NIEDEROEST RAIFFEISEN LB STEIERMARK MOTTGARES -/ Aaa / -/- 44.2%	RAIFFEISEN LB NIEDEROEST				✓	✓	· ·
RAIFFEISEN LB STEIERMARK Mortgages - / Aaa / -/-	RAIFFEISEN LB NIEDEROEST				√	✓	· ·
RAIFFEISEN LB VORARLBERG Mortgages - / Aaa / - /- 23.0%							=
RAIFFLANDESBANK TIROL Mortgages -/Aaa/-/- 35.0% -/Aaa/-/- 49.7% -/Aaa/-/- 49.7% -/Aaa/-/- 49.7% -/Aaa/-/- 80.9% -/Aaa/-/- 80.9% -/Aaa/-/- 80.9% -/Aaa/-/- 80.9% -/Aaa/-/- 80.9% -/Aaa/-/- 111.3% -/Aaa/- 111.3% -/Aaaa/- 111.3% -/Aaaaa/- 111.3% -/Aaaaa/- 111.3% -/Aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa					√	✓	•
RLIB OBEROESTERREICH Mortgages (Pool A) - / Aaa / - / - 49.7% V Level 1 / 7%						√	· ·
UNICREDIT BK AUSTRIA AG Mortgages -/ Aaa / -/ 80.9% V Level 1 / 7%		<u></u>				✓	· ·
Nortgages Nort							· ·
Rating							· ·
ARGENTA SPAARBANK Mortgages -/-/AAA/- 22.8% V Level 1/7%			Rating		Law	Scope CBD	LCR level /
Mortgages AAA / - / AAA / - 21.4%	ARGENTA SDAARRANK	Mortgages		22.8%			
SELFIUS BANK SA/NV Public Loans							· ·
AND PARIBAS FORTIS SA Mortgages AAA / Aaa / -/ 37.9% Canada Cover Pool Rating (Fitch/Moody's/S&P/DBRS) AAA / Aaa / -/ AAA ABA / Aaa / -/ AAA CANADIAN IMPERIAL BANK Mortgages AAA / Aaa / -/ AAA ABA / Aaa / -/ AAA ABA / ABA	•						· ·
NG BELGIUM SA Mortgages AAA / Aaa / -/- 37.9% Canada Cover Pool Rating (Fitch/Moody's/S&P/DBRS) BANK OF MONTREAL Mortgages AAA / Aaa / -/ AAA 49.2% X Level 2A / 15% BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ AAA 46.7% X Level 2A / 15% CANADIAN IMPERIAL BANK Mortgages AAA / Aaa / -/ AAA AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF MONTREAL Mortgages AAA / Aaa / -/ BANK OF MONTREAL Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA BANK OF CANADA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOTIA Mortgages AAA / Aaa / -/ BANK OF NOVA SCOPE CBD Cover Pool Rating (Fitch/Moody's/S&P/DBRS) CCOVER POOL Rating (Fitch/Moody's/S&P/DBRS) CONERCNI BANK AS Mortgages AAA / -/ -/ BANK OF NOVA SCOPE CBD COVER POOL COMERCNI BANK AS Mortgages AAA / -/ -/ BANK OF NOVA SCOPE CBD COVER POOL COVER POOL COVER POOL COVER POOL BANK OF NOVA SCOPE CBD COVER POOL	·						· ·
Canada Cover Pool Rating (Fitch/Moody's/S&P/DBRS) OC Law Scope CBD LCR level / Haircut BANK OF MONTREAL Mortgages AAA / Aaa / - / AAA AAA / Aaa / -							· ·
Canada Cover Pool Rating (Fitch/Moody's/S&P/DBRS) CANK OF MONTREAL Mortgages AAA / Aaa / - / AAA 49.2% X Level 2A / 15% BANK OF NOVA SCOTIA Mortgages AAA / Aaa / - / AAA A46.7% X Level 2A / 15% CANADIAN IMPERIAL BANK Mortgages AAA / Aaa / - / - BANK OF NOVA SCOTIA Mortgages AAA / Aaa / - / - AAA / Aaa / - / AAA AAA / Aaa / Aaa /							· ·
RANK OF MONTREAL BANK OF MONTREAL BANK OF NOVA SCOTIA BANK OF MORTGAGES BANK OF NOVA SCOTIA BANK OF NOVA S							
AAA / Aaa / - / AAA 46.7% Mortgages AAA / Aaa / - / AAA 46.7% AAA / Aaa / - / AAA AAA 46.7% AAA / Aaa / Aaa / AAA AAA AAA AAAA A	Canada	Cover Pool		OC	Law	Scope CBD	Haircut
AAA / Aaa / - / - 34.9%	BANK OF MONTREAL	<u>Mortgages</u>	AAA / Aaa / - / AAA	49.2%	\checkmark	×	Level 2A / 15%
Mortgages AAA / Aaa / - / - 31.4%	BANK OF NOVA SCOTIA	<u>Mortgages</u>	AAA / Aaa / - / AAA	46.7%	\checkmark	×	Level 2A / 15%
Mortgages AAA / Aaa / - / - 84.7% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 69.9% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MOrtgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MOrtgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA 117.8% NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTgages AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTGAGES AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTGAGES AAA / Aaa / - / AAA / Aaa / - / AAA NATIONAL BANK OF CANADA MORTGAGES AAA / Aaa / - / AAA / Aaa / - / AAA /	CANADIAN IMPERIAL BANK	<u>Mortgages</u>	AAA / Aaa / - / -	34.9%	\checkmark	×	Level 2A / 15%
MOTTGAGES AAA / Aaa / - / AAA 69.9% MOTTGAGES AAA / Aaa / - / AAA 69.9% MOTTGAGES AAA / Aaa / - / AAA 59.4% MOTTGAGES AAA / Aaa / - / AAA 59.4% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% MOTTGAGES AAA / Aaa / - / AAA 117.8% AAA / Aaa / - / AAA AAA /	FED CAISSES DESJARDINS	<u>Mortgages</u>	AAA / Aaa / - / -	31.4%	\checkmark	×	Level 2A / 15%
ROYAL BANK OF CANADA Mortgages AAA / Aaa / - / AAA 59.4% Level 2A / 15% FORONTO-DOMINION BANK Mortgages AAA / Aaa / - / AAA 117.8% Czechia Cover Pool Rating (Fitch/Moody's/S&P/DBRS) OC Law Scope CBD Haircut COMERCNI BANKA AS Mortgages AAA / - / - / - 27.0% Level 1 / 7%	HSBC BANK CANADA	<u>Mortgages</u>	AAA / Aaa / - / -	84.7%	\checkmark	×	Level 2A / 15%
Czechia Cover Pool Rating (Fitch/Moody's/S&P/DBRS) COMERCNI BANKA AS Mortgages AAA / Aaa / - / AAA 117.8% Cover Pool Rating (Fitch/Moody's/S&P/DBRS) AAA / - / - / - 27.0% COMERCNI BANKA AS Mortgages AAA / - / - / - 27.0% Level 2A / 15% Level 2A / 15% Level 2A / 15%		Mortgages	AAA / Aaa / - / AAA	69.9%	\checkmark	×	Level 2A / 15%
Czechia Cover Pool Rating OC Law Scope CBD LCR level / Haircut COMERCNI BANKA AS Mortgages AAA / - / - / 27.0% V Level 1 / 7%	NATIONAL BANK OF CANADA				/		
CZECNIA COVER POOI (Fitch/Moody's/S&P/DBRS) OC LAW Scope CBD Haircut COMERCNI BANKA AS Mortgages AAA / - / - 27.0% ✓ Level 1 / 7%			AAA / Aaa / - / AAA	59.4%	V	×	Level 2A / 15%
	ROYAL BANK OF CANADA	Mortgages					
	ROYAL BANK OF CANADA TORONTO-DOMINION BANK	Mortgages Mortgages	AAA / Aaa / - / AAA Rating	117.8%	✓	×	Level 2A / 15% LCR level /
		Mortgages Mortgages Cover Pool	AAA / Aaa / - / AAA Rating (Fitch/Moody's/S&P/DBRS)	117.8% OC	Law	Scope CBD	Level 2A / 15% LCR level / Haircut



Denmark	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
DANMARKS SKIBSKREDIT AS DANSKE BANK A/S	Mortgages (Capital Centre A) Mortgages (Pool C)	- / - / A / - AAA / - / AAA / -	24.0% 18.4%	✓ ✓	✓ ✓	Level 2A / 15% Level 1 / 7%
JYSKE REALKREDIT A/S	Mortgages (Capital Centre E)	-/-/AAA/-	6.5%	\checkmark	✓	Level 1 / 7%
Estonia	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
LUMINOR BANK	<u>Mortgages</u>	- / Aa1 / - / -	76.9%	✓	✓	Level 1 / 7%
Finland	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	LCR level / Haircut
AKTIA BANK	Mortgages (Pool 2)	- / Aaa / - / -	42.0%	✓	✓	Level 1 / 7%
DANSKE MORTGAGE BANK PLC	<u>Mortgages</u>	- / Aaa / - / -	13.0%	\checkmark	✓	Level 1 / 7%
NORDEA KIINNITSLOUTTO	Mortgages (Cover Pool)	- / Aaa / - / -	14.2%	\checkmark	✓	Level 1 / 7%
NORDEA KIINNITSLOUTTO	Mortgages (Cover Pool 2)	- / Aaa / - / -	10.6%	\checkmark	✓	Level 1 / 7%
OMA SAASTOPANKKI OYJ	<u>Mortgages</u>	-/-/AAA/-	30.0%	\checkmark	✓	Level 1 / 7%
OP MORTGAGE BANK	Mortgages (EMTCB)	- / Aaa / - / -	10.2%	\checkmark	✓	Level 1 / 7%
OP MORTGAGE BANK	Mortgages (EMTCN)	- / Aaa / AAA / -	16.1%	\checkmark	✓	Level 1 / 7%
SP KIINNITYSLUOTTOPANKKI	Mortgages (SP-01)	- / - / AAA / -	49.6%	\checkmark	✓	Level 1 / 7%
SP KIINNITYSLUOTTOPANKKI	Mortgages (SP-02)	- / - / AAA / -	30.2%	✓	✓	Level 1 / 7%
France	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
ARKEA HOME LOANS	<u>Mortgages</u>	AAA / Aaa / - / -	26.2%	\checkmark	✓	Level 1 / 7%
ARKEA PUBLIC SECTOR SCF	<u>Public Loans</u>	- / Aaa / - / -	25.0%	\checkmark	✓	Level 1 / 7%
AXA BANK EUROPE SCF	<u>Mortgages</u>	- / Aaa / - / -	26.7%	\checkmark	✓	Level 1 / 7%
AXA HOME LOAN SFH	<u>Mortgages</u>	AAA / - / AAA / -	15.0%	\checkmark	✓	Level 1 / 7%
BNP PARIBAS HOMELOAN SFH	<u>Mortgages</u>	AAA / - / AAA / -	26.4%	\checkmark	✓	Level 1 / 7%
BPCE SFH - SOCIETE DE FI	<u>Mortgages</u>	- / Aaa / AAA / -	36.8%	\checkmark	✓	Level 1 / 7%
CAISSE FRANCAISE DE FIN	<u>Public Loans</u>	- / Aaa / AA+ / AAA	15.2%	\checkmark	✓	Level 1 / 7%
CAISSE REFINANCE L'HABIT	<u>Mortgages</u>	AAA / Aaa / - / -	40.6%	\checkmark	✓	Level 1 / 7%
CIE FINANCEMENT FONCIER	<u>Mortgages</u>	- / Aaa / AAA / -	9.4%	\checkmark	✓	Level 1 / 7%
CRED MUTUEL HOME LOAN SF	<u>Mortgages</u>	AAA / Aaa / AAA / -	50.3%	\checkmark	✓	Level 1 / 7%
CREDIT AGRICOLE HOME LOA	<u>Mortgages</u>	AAA / Aaa / AAA / -	54.2%	\checkmark	✓	Level 1 / 7%
CREDIT AGRICOLE PUBLIC S	<u>Public Loans</u>	- / Aaa / AAA / -	58.0%	\checkmark	✓	Level 1 / 7%
HSBC SFH FRANCE	<u>Mortgages</u>	- / Aaa / AAA / -	32.8%	\checkmark	✓	Level 1 / 7%
LA BANQUE POST HOME LOAN	<u>Mortgages</u>	- / - / AAA / -	31.8%	\checkmark	✓	Level 1 / 7%
MMB SCF	<u>Mortgages</u>	-/-/AAA/-	19.3%	\checkmark	✓	Level 1 / 7%
SOCIETE GENERALE SFH	<u>Mortgages</u>	AAA / Aaa / - / -	21.7%	√	✓	Level 1 / 7%
Germany	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
AAREAL BANK AG	<u>Mortgages</u>	- / Aaa / - / -	14.3%	\checkmark	✓	Level 1 / 7%
BAUSPAR.SCHWAEBISCH HALL	<u>Mortgages</u>	- / Aaa / - / -	56.9%	\checkmark	✓	Level 1 / 7%
BAYERISCHE LANDESBANK	<u>Mortgages</u>	- / Aaa / - / -	30.8%	\checkmark	✓	Level 1 / 7%
BAYERISCHE LANDESBANK	<u>Public Loans</u>	- / Aaa / - / -	55.3%	\checkmark	✓	Level 1 / 7%
BERLIN HYP AG	<u>Mortgages</u>	- / Aaa / - / -	5.4%	√	√	Level 1 / 7%
COMMERZBANK AG	<u>Mortgages</u>	- / Aaa / - / -	39.7%	\checkmark	✓	Level 1 / 7%
COMMERZBANK AG	<u>Public Loans</u>	- / Aaa / - / -	64.4%	\checkmark	✓	Level 1 / 7%
DEUT APOTHEKE AERZTEBANK	<u>Mortgages</u>	- / - / AAA / -	98.3%	\checkmark	✓	Level 1 / 7%
DEUT PFANDBRIEFBANK AG	<u>Mortgages</u>	- / Aa1 / - / -	27.2%	√	√	Level 1 / 7%
DEUT PFANDBRIEFBANK AG	Public Loans	-/Aa1/-/-	24.6%	\checkmark	✓	Level 1 / 7%
DEUTSCHE BANK AG	<u>Mortgages</u>	- / Aaa / - / AA	20.4%	×	×	not eligible
DEUTSCHE BANK AG	<u>Mortgages</u>	- / Aaa / - / -	20.4%	✓	√	Level 1 / 7%
DEUTSCHE KREDITBANK AG	<u>Mortgages</u>	- / Aaa / - / -	22.3%	\checkmark	✓	Level 1 / 7%
DEUTSCHE KREDITBANK AG	<u>Public Loans</u>	- / Aaa / - / -	141.9%	\checkmark	✓	Level 1 / 7%
DZ HYP AG	<u>Mortgages</u>	- / Aaa / AAA / -	20.5%	\checkmark	✓	Level 1 / 7%
DZ HYP AG	<u>Public Loans</u>	- / Aaa / AAA / -	26.0%	\checkmark	✓	Level 1 / 7%
HAMBURG COMMERCIAL BANK	<u>Mortgages</u>	- / Aaa / - / -	24.8%	✓	✓	Level 1 / 7%



Germany	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	LCR level / Haircut
HAMBURG COMMERCIAL BANK	Mortgage (Ship)	- / Aa3 / - / -	27.5%	✓	✓	Level 1 / 7%
HAMBURGER SPARKASSE	<u>Mortgages</u>	- / Aaa / - / -	25.9%	\checkmark	✓	Level 1 / 7%
ING-DIBA AG	<u>Mortgages</u>	- / Aaa / - / -	80.8%	\checkmark	✓	Level 1 / 7%
LANDBK HESSEN-THUERINGEN	<u>Mortgages</u>	- / Aaa / - / -	56.7%	\checkmark	✓	Level 1 / 7%
LANDBK HESSEN-THUERINGEN	Public Loans	AAA / Aaa / - / -	48.8%	\checkmark	✓	Level 1 / 7%
LB BADEN-WUERTTEMBERG	<u>Mortgages</u>	- / Aaa / - / -	49.6%	\checkmark	✓	Level 1 / 7%
LB BADEN-WUERTTEMBERG	Public Loans	- / Aaa / - / -	27.0%	\checkmark	✓	Level 1 / 7%
MUENCHENER HYPOTHEKENBNK	<u>Mortgages</u>	- / Aaa / - / -	9.0%	✓	✓	Level 1 / 7%
NORDDEUTSCHE LANDESBANK	<u>Mortgages</u>	-/Aa1/-/-	45.8%	✓	✓	Level 1 / 7%
NORDDEUTSCHE LANDESBANK	<u>Public Loans</u>	-/Aa1/-/-	16.1%	✓	✓	Level 1 / 7%
SANTANDER CONSUMER BANK	<u>Mortgages</u>	AAA / Aaa / - / -	19.8%	\checkmark	✓	Level 1 / 7%
SPARKASSE KOELNBONN	Mortgages	- / Aaa / - / -	434.4%	\checkmark	✓	Level 1 / 7%
SPARKASSE PFORZHEIM CALW	Mortgages	AAA / - / - / -	19.6%	\checkmark	✓	Level 1 / 7%
UNICREDIT BANK AG	Mortgages	- / Aaa / - / -	23.8%	\checkmark	✓	Level 1 / 7%
UNICREDIT BANK AG	Public Loans	- / Aaa / - / -	69.6%	\checkmark	✓	Level 1 / 7%
WUESTENROT BAUSPARKASSE	Mortgages	-/-/AAA/-	21.5%	\checkmark	✓	Level 1 / 7%
Iceland	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
ARION BANKI HF	Mortgages	-/-/A/-	22.3%	✓	✓	Level 2A / 15%
Ireland	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
BANK OF IRELAND MTGE BNK	Mortgages	- / Aaa / - / -	121.4%	√	✓	Level 1 / 7%
DAIN OF INCEAND WINGE BINK						LCR level /
Italy	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	Haircut
BANCA MONTE DEI PASCHI S	Mortgages (OBG 1)	AA- / Aa3 / - / AA	41.3%	\checkmark	✓	Level 1 / 7%
BANCO BPM SPA	Mortgages (BPM OBG2)	- / Aa3 / - / -	99.6%	\checkmark	✓	Level 1 / 7%
BANCO DESIO DELLA BRIANZ	Mortgages	AA / - / - / -	34.0%	\checkmark	✓	Level 1 / 7%
BPER BANCA	<u>Mortgages</u>	- / Aa3 / - / AA	27.0%	\checkmark	✓	Level 1 / 7%
CREDIT AGRICOLE ITALIA	Mortgages	- / Aa3 / - / -	30.7%	\checkmark	✓	Level 1 / 7%
CREDITO EMILIANO SPA	Mortgages	AA / Aa3 / - / -	110.0%	✓	✓	Level 1 / 7%
ICCREA BANCA SPA	<u>Mortgages</u>	- / Aa3 / - / -	251.8%	\checkmark	✓	Level 1 / 7%
	Mortgages (OBG Mortgage (ISP					
INTESA SANPAOLO SPA	CB Ipotecario))	- / Aa3 / - / -	30.3%	\checkmark	✓	Level 1 / 7%
INTESA SANPAOLO SPA	Mortgages (OBG UBI Finance)	- / Aa3 / - / AA	33.9%	\checkmark	✓	Level 1 / 7%
MEDIOBANCA DI CRED FIN	<u>Mortgages</u>	AA / - / - / -	40.9%	\checkmark	✓	Level 1 / 7%
UNICREDIT SPA	Mortgages (OBG (OBG2, Soft)	- / Aa3 / - / -	67.5%	\checkmark	✓	Level 1 / 7%
Japan	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
SUMITOMO MITSUI BANKING	<u>Mortgages</u>	- / Aaa / - / -	81.4%	×	×	not eligible
SUMITOMO MITSUI TR BK LT	Mortgages	- / Aaa / - / -	32.3%	×	×	not eligible
South Korea	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	LCR level / Haircut
HANA BANK	<u>Mortgages</u>	AAA / - / AAA / -	89.6%	√	×	Level 2A / 15%
KOOKMIN BANK	<u>Mortgages</u>	AAA / - / AAA / -	147.5%	√	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (2020/01 Issue)	-/-/AAA/-	6.9%	✓	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (2020/06 Issue)	-/-/AAA/-	12.2%	✓	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (2021/01 Issue)	-/-/AAA/-	8.0%	√ ·	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (2021/02 Issue)	-/-/AAA/-	9.7%	√	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (2022/01 Issue)	-/-/AAA/-	38.0%	√	×	Level 2A / 15%
KOREA HOUSING FINANCE CO	Mortgages (Global)	- / - / AAA / - - / Aaa / AAA / -	69.3%	∨	×	Level 2A / 15%
NONLA HOUSING FINANCE CO	iviorigages (Global)		03.370	v		
Luxembourg	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	LCR level / Haircut
NORDLB LX COV BOND BK	Public Loans (LdG Public)	- / Aa2 / - / -	26.7%	✓	✓	Level 1 / 7%



Netherlands	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
ABN AMRO BANK NV	<u>Mortgages</u>	AAA / Aaa / - / -	32.8%	✓	✓	Level 1 / 7%
ACHMEA BANK NV	Mortgages (SB)	-/-/AAA/-	17.7%	\checkmark	\checkmark	Level 1 / 7%
AEGON BANK	Mortgages (SB)	-/-/AAA/-	20.8%	\checkmark	\checkmark	Level 1 / 7%
AEGON BANK	Mortgages (CPT)	-/-/AAA/-	10.9%	\checkmark	\checkmark	Level 1 / 7%
COOPERATIEVE RABOBANK UA	<u>Mortgages</u>	- / Aaa / - / -	10.9%	\checkmark	\checkmark	Level 1 / 7%
DE VOLKSBANK NV	<u>Mortgages</u>	AAA / Aaa / - / -	17.9%	\checkmark	\checkmark	Level 1 / 7%
ING BANK NV	<u>Mortgages</u>	AAA / Aaa / AAA / -	24.6%	\checkmark	\checkmark	Level 1 / 7%
NIBC BANK NV	Mortgages (CPT)	AAA / - / AAA / -	21.9%	\checkmark	\checkmark	Level 1 / 7%
NIBC BANK NV	Mortgages (SB)	-/-/AAA/-	46.9%	\checkmark	\checkmark	Level 1 / 7%
NN BANK NV NETHERLANDS	Mortgages (SB)	-/-/AAA/-	38.4%	\checkmark	✓	Level 1 / 7%
F VAN LANSCHOT BANKIERS	Mortgages (CPT)	AAA / - / AAA / -	40.4%	\checkmark	✓	Level 1 / 7%
VAN LANSCHOT NV	Mortgages (SB)	-/-/AAA/-	39.3%	\checkmark	✓	Level 1 / 7%
New Zealand	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
ANZ NEW ZEALAND INTL/LDN	Mortgages	AAA / Aaa / - / -	127.6%	✓	×	Level 2A / 15%
ASB BANK LIMITED	<u>Mortgages</u>	AAA / Aaa / - / -	37.7%	\checkmark	×	Level 2A / 15%
BANK OF NEW ZEALAND	<u>Mortgages</u>	AAA / Aaa / - / -	21.0%	✓	×	Level 2A / 15%
BNZ INTL FUNDING/LONDON	Mortgages	AAA / Aaa / - / -	21.0%	✓	×	Level 2A / 15%
Norway	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
DNB BOLIGKREDITT AS	<u>Mortgages</u>	- / Aaa / AAA / -	99.8%	√	✓	Level 1 / 7%
EIKA BOLIGKREDITT AS	Mortgages	- / Aaa / - / -	9.0%	✓	✓	Level 1 / 7%
SPAREBANK 1 BOLIGKREDITT	Mortgages	- / Aaa / - / -	5.7%	✓	✓	Level 1 / 7%
SPAREBANKEN SOR BOLIGKRE	<u>Mortgages</u>	- / Aaa / - / -	15.8%	✓	✓	Level 1 / 7%
SPAREBANKEN VEST BOLIGKR	<u>Mortgages</u>	- / Aaa / - / -	26.5%	√ ·	· ✓	Level 1 / 7%
SR-BOLIGKREDITT AS	<u>Mortgages</u>	- / Aaa / - / -	18.8%	· /	✓	Level 1 / 7%
		Rating			6 600	LCR level /
Poland	Cover Pool	(Fitch/Moody's/S&P/DBRS)	oc	Law	Scope CBD	Haircut
			OC 83.3%	Law	∠ Scobe CRD	Haircut Level 1 / 7%
Poland PKO BANK HIPOTECZNY Portugal	Cover Pool Mortgages Cover Pool	(Fitch/Moody's/S&P/DBRS)			·	
PKO BANK HIPOTECZNY	<u>Mortgages</u>	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating	83.3%	√	√	Level 1 / 7% LCR level /
PKO BANK HIPOTECZNY Portugal	Mortgages Cover Pool	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating (Fitch/Moody's/S&P/DBRS)	83.3% OC	Law	Scope CBD	Level 1 / 7% LCR level / Haircut
PKO BANK HIPOTECZNY Portugal BANCO BPI SA	Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating (Fitch/Moody's/S&P/DBRS) - / Aa2 / - / AA	83.3% OC 24.8%	✓ Law ✓	Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA	Mortgages Cover Pool Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating (Fitch/Moody's/S&P/DBRS) - / Aa2 / - / AA AA- / Aa2 / - / AA	83.3% OC 24.8% 19.3%	Law	Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore	Mortgages Mortgages Mortgages Mortgages Mortgages Cover Pool	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating (Fitch/Moody's/S&P/DBRS) - / Aa2 / - / AA AA- / Aa2 / - / AA AA+ / Aa2 / - / - Rating	83.3% OC 24.8% 19.3% 20.3%	Law	Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level /
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD	Mortgages Cover Pool Mortgages Mortgages Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3%	Law Law Law	Scope CBD Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore	Mortgages Mortgages Mortgages Mortgages Mortgages Cover Pool	(Fitch/Moody's/S&P/DBRS) - / Aa1 / - / - Rating (Fitch/Moody's/S&P/DBRS) - / Aa2 / - / AA AA- / Aa2 / - / AA AA+ / Aa2 / - / - Rating (Fitch/Moody's/S&P/DBRS)	83.3% OC 24.8% 19.3% 20.3% OC	Law Law Law	Scope CBD Scope CBD x	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING	Mortgages Cover Pool Mortgages Mortgages Mortgages Cover Pool Mortgages Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-/- AAA/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3%	Law Law Law	Scope CBD Scope CBD x x	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD	Mortgages Cover Pool Mortgages Mortgages Mortgages Cover Pool Mortgages Mortgages Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-/- AAA/Aaa/-//Aaa/AAA/- Rating	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2%	Law Law Law	Scope CBD Scope CBD x x x	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% Level 2 / 75% Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 2A / 15%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia	Mortgages Cover Pool Mortgages Mortgages Mortgages Cover Pool Mortgages Mortgages Mortgages Mortgages Cover Pool	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-/- AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS)	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC	Law Law Law Law	Scope CBD Scope CBD x x x Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% LCR level / Haircut
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS	Mortgages Cover Pool Mortgages Mortgages Mortgages Cover Pool Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-/- AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4%	Law Law Law	Scope CBD Scope CBD x x x Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS	Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-//Aaa/-//Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5%	Law Law Law Law	Scope CBD Scope CBD x x x Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS	Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa//Aaa//Aaa//Aaa//Aaa//Aaa/	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5%	Law Law Law Law Law	Scope CBD Scope CBD x x x Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 2 / 7% Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 2 / 15% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA	Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-//Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7%	Law Law Law Law	Scope CBD Scope CBD x x x Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA Spain	Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7% OC	Law Law Law Law Law Law	Scope CBD * * * Scope CBD * * * * Scope CBD * * * * Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 2 / 7% Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7% LCR level / Haircut
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA Spain ABANCA CORP BANCARIA SA	Mortgages Cover Pool Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7% OC 62.3%	Law Law Law Law Law	Scope CBD * * * * Scope CBD * * * * Scope CBD * * * * Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% LCR level / Haircut Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA Spain ABANCA CORP BANCARIA SA BANCO BILBAO VIZCAYA ARG	Mortgages Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/-	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7% OC 62.3% 83.8%	Law Law Law Law Law	Scope CBD * Scope CBD * * * Scope CBD * Scope CBD * * * * * * * * * * * * * * * * * *	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA Spain ABANCA CORP BANCARIA SA BANCO BILBAO VIZCAYA ARG BANCO DE SABADELL SA	Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/AAA	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7% OC 62.3% 83.8% 48.4%	Law Law Law Law Law Law	Scope CBD x x x Scope CBD Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7% Level 1 / 7%
PKO BANK HIPOTECZNY Portugal BANCO BPI SA BANCO SANTANDER TOTTA SA CAIXA ECO MONTEPIO GERAL Singapore DBS BANK LTD OVERSEA-CHINESE BANKING UNITED OVERSEAS BANK LTD Slovakia PRIMA BANKA SLOVENSKO AS SLOVENSKA SPORITELNA AS TATRA BANKA AS VSEOBECNA UVEROVA BANKA Spain ABANCA CORP BANCARIA SA BANCO BILBAO VIZCAYA ARG BANCO DE SABADELL SA	Mortgages	(Fitch/Moody's/S&P/DBRS) -/Aa1/-/- Rating (Fitch/Moody's/S&P/DBRS) -/Aa2/-/AA AA-/Aa2/-/AA AA+/Aa2/-/- Rating (Fitch/Moody's/S&P/DBRS) AAA/Aaa/-//Aaa/AAA/- Rating (Fitch/Moody's/S&P/DBRS) -/Aaa/-/AAA	83.3% OC 24.8% 19.3% 20.3% OC 187.3% 800.3% 72.2% OC 50.4% 51.5% 20.5% 10.7% OC 62.3% 83.8% 48.4%	Law Law Law Law Law Law	Scope CBD x x x Scope CBD Scope CBD	Level 1 / 7% LCR level / Haircut Level 1 / 7% Level 1 / 7% Level 1 / 7% LCR level / Haircut Level 2A / 15% Level 2A / 15% Level 2A / 15% Level 1 / 7% Level 1 / 7%



Spain	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
CAIXABANK SA	<u>Mortgages</u>	- / Aa1 / AA+ / AAA	96.7%	✓	✓	Level 1 / 7%
CAJA RURAL DE NAVARRA	<u>Mortgages</u>	- / Aa1 / - / -	10.2%	\checkmark	✓	Level 1 / 7%
CAJAMAR CAJA RURAL SCC	<u>Mortgages</u>	-/-/AA+/-	33.0%	\checkmark	✓	Level 1 / 7%
DEUTSCHE BK SA ESPANOLA	<u>Mortgages</u>	-/Aa1/-/-	26.3%	\checkmark	✓	Level 1 / 7%
EUROCAJA RURAL SCC	<u>Mortgages</u>	-/Aa1/-/-	82.4%	\checkmark	✓	Level 1 / 7%
KUTXABANK SA	<u>Mortgages</u>	- / Aa1 / - / AAA	69.8%	\checkmark	✓	Level 1 / 7%
UNICAJA SA	<u>Mortgages</u>	- / Aa1 / - / -	35.5%	\checkmark	✓	Level 1 / 7%
Sweden	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
LANSFORSAKRINGAR HYPOTEK	<u>Mortgages</u>	- / Aaa / AAA / -	31.4%	✓	✓	Level 1 / 7%
SKANDINAVISKA ENSKILDA	<u>Mortgages</u>	- / Aaa / - / -	91.7%	✓	✓	Level 1 / 7%
STADSHYPOTEK AB	Mortgages (NO Pool)	- / Aaa / - / -	10.0%	\checkmark	✓	Level 1 / 7%
STADSHYPOTEK AB	Mortgages (SE Pool)	- / Aaa / - / -	11.0%	\checkmark	✓	Level 1 / 7%
SWEDBANK HYPOTEK AB	<u>Mortgages</u>	- / Aaa / AAA / -	203.9%	\checkmark	\checkmark	Level 1 / 7%
SWEDISH COVERED BOND	<u>Mortgages</u>	- / Aaa / - / -	31.5%	\checkmark	✓	Level 1 / 7%
Switzerland	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ОС	Law	Scope CBD	LCR level / Haircut
CREDIT SUISSE SCHWEIZ AG	<u>Mortgages</u>	AAA / - / - / -	14.5%	×	×	not eligible
UK	Cover Pool	Rating (Fitch/Moody's/S&P/DBRS)	ос	Law	Scope CBD	LCR level / Haircut
CLYDESDALE BANK PLC	<u>Mortgages</u>	AAA / Aaa / - / -	131.0%	✓	×	not eligible
COVENTRY BLDG SOCIETY	<u>Mortgages</u>	AAA / Aaa / - / -	52.7%	\checkmark	×	not eligible
LLOYDS BANK PLC	<u>Mortgages</u>	AAA / Aaa / - / -	50.6%	\checkmark	×	not eligible
NATIONWIDE BLDG SOCIETY	<u>Mortgages</u>	AAA / Aaa / AAA / -	54.1%	\checkmark	×	not eligible
SANTANDER UK PLC	<u>Mortgages</u>	AAA / Aaa / AAA / -	61.0%	\checkmark	×	not eligible
SKIPTON BUILDING SOCIETY	<u>Mortgages</u>	AAA / Aaa / - / -	86.1%	\checkmark	×	not eligible
YORKSHIRE BUILDING SOC	<u>Mortgages</u>	AAA / Aaa / - / -	71.9%	✓	×	not eligible

Source: Issuer, rating agencies, NORD/LB Markets Strategy & Floor Research



Regulatory Covered Covered bond laws in tabular comparison

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Specific features of covered bonds as an asset class

Covered bonds are a special asset class both from the issuer's and the investor's point of view. This is especially true with regard to the so-called "dual recourse" of the covered bond holders. In general terms, this firstly secures the investors' claim to the payment of interest and nominal amounts by the issuer (senior unsecured claim) and - in the event of the issuer's default - access to the cover assets that stand against the issued bonds. A distinction must also be made between those covered bonds that were placed on the basis of statutory frameworks and those covered bonds that were issued on a "contractual" basis. For the latter, no legal requirements are relevant with regard to the design of the covered bond programme, e.g. with regard to the quality of the cover assets or the cover requirements. The most important benchmark index for the covered bond segment, the iBoxx EUR Covered, includes both statutory covered bonds and issues based on contractual arrangements. Legislative covered bonds account for by far the largest share. In our view, this can certainly be seen as an achievement. After all, some now established benchmark jurisdictions have only had covered bond legislation for a few years. This includes, for example, the Canadian market, which is now one of the most important jurisdictions in the EUR benchmark segment. We are also looking to Japan with some excitement. The two issuers in the world's third largest economy are currently still active in the market with contractual covered bonds. However, the country has been working on a legal framework for some time, the finalisation of which may well be seen as a catalyst for dynamic growth in the Japanese covered bond market.

Covered Bond Laws: National requirements shaped for the European Economic Area by new minimum standards

However, the ever-increasing global spread of covered bonds and the successively growing number of countries with corresponding legal frameworks also resulted in an increasingly pronounced heterogeneity of the legal frameworks. This was and is due not least to the different laws already in place to regulate the framework conditions for securitisation, mortgages or banks in general, for example. Getting to grips with this complexity for the European Economic Area was one of the aims of the "harmonisation project", which was formally concluded on 8 July 2022. In our opinion, the EU Covered Bond Directive (and the associated regulation) set significant minimum standards for covered bonds without unduly diluting quality features in established jurisdictions. In this respect, we deliberately speak of minimum requirements and less of genuine harmonisation. However, we do not question the fundamental success of the project. Rather, we still see a need to understand the national specificities as well as to harmonise European legislation with the frameworks not only covered by the Directive. Not least for this reason, we would like to provide an overview of the main features of national legislation in this Issuer Guide Covered Bond.



Overview of national covered bond legislations

The following table is an update of the corresponding list in the "NORD/LB Covered Bond Special - Covered Bond Laws". In our Issuer Guide Covered Bonds we are now building on this overview and have updated the tabular comparison. For example, we would like to highlight the information on the competent supervisory authorities in the respective jurisdictions. This also seemed important to us because the national supervisory authorities were given greater responsibility under the Covered Bond Directive. Not least against the backdrop of the developments on the international real estate markets, we also compiled the requirements for determining LTVs arising from the legislation, not least against the background of developments on the international real estate markets.

EU Covered Bond legislation: Implementation of the minimum standards

The minimum standards set by the EU Covered Bond Directive have been incorporated into the national legislation of the member states. The most recent finalisation of the implementation of the directive took place in Italy, where final official communications on specific requirements were made by 31 March 2023. As we will show below by way of example, despite the implementation of the Directive, national peculiarities remained and the requirements of the Directive were not all implemented in the same way. First of all, we would like to mention labelling in the context of European covered bonds. The new framework certainly offers significant assistance with regard to the valuation of European covered bonds in the context of risk weighting and LCR eligibility via labelling. If, for example, the name "European covered bond (premium)" is confirmed by the national supervisory authority at the programme level, a possible best-case classification as Level 1 assets in the context of LCR management and a possible best-case risk weight of 10% are derived from this for the corresponding programmes. We publish this classification every six months as part of our covered bond special "Risk weight and LCR level of covered bonds".

National peculiarities of the LTV limit despite the EU Covered Bond Directive: A look at the examples of Germany and the Czech Republic

An example that in our opinion impressively reveals the national peculiarities or specifics is the LTV limit anchored in law. Here, for example, the German legislator sticks to the more conservative reading compared to the Covered Bond Regulation. In the Pfandbrief Act (PfandBG), the limits for both commercial real estate loans and residential financing are 60% each. In the Czech Republic, on the other hand, the legislator chose an LTV limit of 100% as the default. By complying with the legal requirements of the country, the issuer does not necessarily achieve the necessary condition for reaching a 10% risk limit according to the CRR. In this respect, it is important for the credit institution to ensure within the scope of the programme design that the requirements of the CRR are met if recognition as a "European Covered Bond (Premium)" is to be achieved.



National peculiarities in the case of deferment of maturity

In the context of the EU Covered Bond Directive, the implementation of Article 17 "Conditions for extendable maturities" in particular is one of the issues that illustrate the continuing heterogeneity of legislation in Europe. Thus, most legislators have followed the "optional" requirement of introducing maturity deferral. When it comes to implementing the "objective triggers" for maturity deferral "provided for in national law", national laws certainly diverge to a significant extent. Within the framework of the tabular presentation, we have compiled both whether a maturity deferral is provided for in the law and under which conditions it can occur. The jurisdictions of Australia, Great Britain, Canada, New Zealand, Singapore and South Korea do not fall within the scope of the Directive. However, we have also noted here whether "soft bullets" are permitted in principle and under what circumstances a deferral may occur.

Structure of the following table

The following table is intended to illustrate most of the relevant characteristics of covered bond laws, without claiming to be exhaustive. Fundamental questions in the systematic consideration of the legal basis of covered bond issues concern, among other things, the official national designation of the covered bond. In fact, in some jurisdictions a clear demarcation is not trivial because the legal bases may differ. The question of the special bank principle is also important. For example, limiting the right to issue statutory covered bonds to special credit institutions entails both advantages and disadvantages. In Luxembourg, for example, the circle of possible covered bond issuers was also extended to include "normal" credit institutions in the course of implementing the Directive. The table also shows whether the cover assets remain on the issuer's balance sheet or are transferred to a special entity. It also indicates whether a cover register must be kept for the cover assets by law. A major focus of the table is also on the eligible cover assets as well as the substitute cover. The permitted geographical origin of the cover assets plays just as important a role as the type of cover assets and the lending limits for mortgage cover assets. From an investor's point of view, ECB eligibility - i.e. the possible use as collateral in the context of liquidity provision via the Eurosystem - remains an important variable, so we have also included this feature, even though it is not regulated in national laws. For a detailed analysis of the topic "covered bonds as eligible collateral", we would like to refer to the corresponding Covered Bond Special.



Country	Australia	Austria	Belgium
Designation	Australian Covered Bonds	Pfandbriefe (Mortgage Pfandbriefe, Public Pfandbriefe, Ship Pfandbriefe)	Belgian Pandbrieven / Lettres de Gage
Short form	-	-	-
Special bank principle	No	No	No
Owner of assets	SPV	Issuer	Issuer
Public supervision / Regulator	Australian Prudential Regulation Authority (APRA)	Finanzmarktaufsicht (FMA)	National Bank of Belgium (NBB)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Bank loans	Mortgage loans, Public sector loans, Ship loans, Bank loans	Mortgage loans, Public sector loans, Bank loans (max. 3 months)
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	15%	15%	15% CQS1/ 10% CQS2
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	AU	EEA, CH, UK	EEA
Geographical scope - Public sector loans	AU	EEA, CH, UK	OECD
Loan to value - Mortgage loans	Residential: 80% Commercial: 60%	Residential: 80%, Commercial: 60%, Ships: 60%	Residential: 80% Commercial: 60%
LTV calculation	Monthly revaluation by indexation (contractually fixed)	Mortgage lending value	Market value according to CRR §208 (at least annual check)
Minimum OC	3% nominal value	2% nominal value	5% nominal value
Cover pool register	Yes	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	8% of domestic assets**	No issue if primary coverage below 85%	8% of total assets* (abolished as of 1.1.2024)
Deferral of maturity	Yes, optional	Yes, optional	Yes, optional
Trigger Deferral of maturity	Insolvency, Inability to pay	Insolvency, Resolution of the Issuer	Insolvency, Resolution, Inability to pay
CRD compliant	No	Yes	Lettres de Gage/ Belgian Pandbrieven: Yes
ECB eligible	No	Yes	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research



Country	Canada	Czech Republic	Denmark
Designation	Canadian Registered Covered Bonds	Hypotecni zastavni listy / Verejnopravni zastavni listy / Smisene zastavni listy	Saerligt Daekkede Obligationer
Short form	-	-	SDO
Special bank principle	No	No	Yes
Owner of assets	SPV	Issuer	Issuer
Public supervision / Regulator	Canada Mortgage and Hous- ing Corporation (CMHC)	Czech National Bank (CNB)	Danish Financial Supervisory Authority (FSA)
Cover assets (if applicable incl. substitute cover)	Residential mortgage loans, Canadian government bonds	Mortgage loans, Public sector loans	Mortgage loans, Public sector loans, Ship loans, Bank loans
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	10%	15%	15% CQS1/ 10% CQS2
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	CA	CZ, EEA	DK, EEA (with the approval of the FSA)
Geographical scope - Public sector loans	-	CZ, OECD	DK, EEA (with the approval of the FSA)
Loan to value - Mortgage loans	Residential: 80%	100%	Residential: 75%/80% ¹ Holiday homes: 60%/75% ² Agriculture: 60%/70% ³ Commercial: 60%/70% ³
LTV calculation	Market value	Mortgage lending value	Market value (on site by valuation agent)
Minimum OC	3% nominal value	2% nominal (10% in the case of claims predominantly on public companies) + 1% for costs after default	2% nominal value
Cover pool register	No	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	5.5% of the Total Balance Sheet*	-	Balance Principle
Deferral of maturity	Yes	Yes, optional	Yes, mandatory (except specialised ship banks)
Trigger Deferral of maturity	Insolvency, Inability to pay, other events	Insolvency, Resolution, Inability to pay, breach of liquidity regulations	Refinancing CBs not guaranteed
CRD compliant	No	Yes (if issuer meets conditions in Article 129(1a) to (3) CRR)	Yes
ECB eligible	Yes (if in EUR denominated)	Yes	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ¹ 80%: loans issued up to 30y maturity and 10y interest-only period, 75%: loans with an unlimited maturity and interest-only period; ² 60%: residential use; 75%: commercial use; ³ up to 70% if the bank adds additional collateral



Country Den	mark Estonia
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Designation	Saerligt Daekkede Realkreditobligationer	Realkredit- obligationer	Mortgage Covered Bond, Mixed Asset Covered Bond
Short form	SDRO	RO	-
Special bank principle	Yes	Yes	No
Owner of assets	Issuer	Issuer	Issuer
Public supervision / Regulator	Danish Financial Supervisory Authority (FSA)	Danish Financial Supervisory Authority (FSA)	Estonian Financial Supervision and Resolution Authority (EFSA)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans	Mortgage loans, Public sector loans	1st: Residential mortgage loans 2nd: Mortgage loans, Public sector receivables 1st + 2nd: bank loans
Substitute assets	No	No	Yes
Limit of substitute assets	-	-	15%
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	DK, EEA (with the approval of the FSA)	DK, EEA (with the approval of the FSA)	EEA
Geographical scope - Public sector loans	DK, EEA (with the approval of the FSA)	DK, EEA (with the approval of the FSA)	EEA
Loan to value - Mortgage loans	Residential: 75%/80% ⁴ Holiday homes: 60%/75% ⁵ Agriculture: 60%/70% ⁶ Commercial: 60%/70% ⁶	Residential: 80% Holiday homes: 60%/75% ⁵ Agriculture: 70% Commercial: 60%	Residential: 70% Commercial: 60% Other: 60%
LTV calculation	Market value (on site by valuation agent)	Market value (on site by valuation agent)	Market value
Minimum OC	2% nominal value	2% nominal value	5% nominal value
Cover pool register	Yes	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	Balance Principle	Balance Principle	-
Deferral of maturity	Yes, mandatory	Yes, mandatory	Yes, optional
Trigger Deferral of maturity	Refinancing CBs not guaran- teed, interest rate increases by 5% or more	Refinancing CBs not guaran- teed, interest rate increases by 5% or more	Insolvency, moratorium, expiry of the licence, Dissolution of the issuer
CRD compliant	Yes	Depending on programme ⁷	Yes
ECB eligible	Yes	Yes	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ⁴ 80%: loans issued up to 30y maturity and 10y interest-only period, 75%: loans with an unlimited maturity and interest-only period; ⁵ 60%: residential use; 75%: commercial use; ⁶ up to 70% if the bank adds additional collateral; ⁷ All ROs issued before 1 January 2008 are grandfathered and hence UCITS and CRR compliant



Country	Finland	Fra	nce
Designation	Finnish Covered Bond	Obligations a l'Habitat	Obligations Foncieres
Short form	-	ОН	OF
Special bank principle	No	Yes {Societe de Financement a l'Habitat (SFH)}	Yes {Societe de Credit Foncier (SCF)}
Owner of assets	Issuer	Issuer or Credit institution (Pledge to Issuer)	Issuer or Credit institution (Pledge to Issuer)
Public supervision / Regulator	Finnish Financial Supervisory Authority (FIN-FSA)	Autorite de Controle Prudentiel et de Resolution (ACPR)	Autorite de Controle Pruden- tiel et de Resolution (ACPR)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Commercial loans max. 10%	Mortgage loans (only residential), Bank loans	Mortgage loans (residential & commercial), Public sector loans (min CQS1), Bank loans
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	20%	15% max. 10% CQS2 / 8% CQS3	15% max. 10% CQS2 / 8% CQS3
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	EEA	EEA, outside CQS1 countries only	EEA, outside CQS1 countries only
Geographical scope - Public sector loans	EEA		EEA outside min. CQS2 countries
Loan to value - Mortgage loans	Residential: 80% Commercial: 60%	Residential: 80% FGAS ⁸ guarantee: 100%	Residential: 80% Commercial: 60% FGAS ⁸ guarantee: 100%
LTV calculation	Market value	Market value (long-term), updated annually	Market value (long-term), updated annually
Minimum OC	2% (present value and nominal), if Art. 129 para. 3a CRR fulfilled, otherwise: 5% (present value and nominal)	5% nominal	5% nominal
Cover pool register	Yes	No (Transfer document)	No (Transfer document)
Asset encumbrance * Issue limit ** Cover pool limit	-	-	-
Deferral of maturity	Yes, optional	Yes, optional	Yes, optional
Trigger Deferral of maturity	Inability to pay, Lack of liquidity	Insolvency, Resolution, Inability to pay, Lack of liquidity	Insolvency, Resolution, Inability to pay, Lack of liquidity
CRD compliant	Yes	Yes	Yes
ECB eligible	Yes	Yes	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ⁸ FGAS: Fonds de garantie a l'accession sociale / Guarantee Fund for Social Home Accession



Country	France	Germany	Iceland
Designation	Caisse de Refinancement de l'Habitat	Mortgage Pfandbriefe, Public-, Ship- & Aircraft Pfandbriefe	Icelandic Covered Bonds
Short form	CRH	Hypfe, Öpfe, Schipfe, Flupfe	-
Special bank principle	Yes {Caisse de Refinance- ment de l'Habitat (CRH)}	No	No
Owner of assets	Credit institutions (Owner of the CRH 9); (Pledge to Issuer)	Issuer	Issuer
Public supervision / Regulator	Autorite de Controle Prudentiel et de Resolution (ACPR)	Federal Financial Supervisory Authority (BaFin)	Financial Supervisory Authority of the CB of Iceland
Cover assets (if applicable incl. substitute cover)	Mortgage loans (only residential, max. 1m and 25y Remaining maturity), Bank loans	Mortgage, Ship and Aircraft loans, Public sector loans, Bank loans	Mortgage loans, Public sector loans, Bank loans
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	15% max. 10% CQS2 / 8% CQS3	CQS1; 15% Öpfe, 20% Hypfe, Schipfe, Flupfe	20%
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	France	EEA, CH, US, CA, JP, AU, NZ, SG, UK ⁸ , Schipfe and Flupfe worldwide	EEA
Geographical scope - Public sector loans	-	EEA, CH, US, CA, JP, UK ¹¹	EEA
Loan to value - Mortgage loans	Residential: 80% FGAS ¹⁰ guarantee: 100%	60% of the mortgage lending value	Residential: 80% Commercial: 60% Agricultural: 70%
LTV calculation	Market value (long-term), updated annually	Mortgage lending value pursuant to Mortgage Lending Value Regulation	Market value
Minimum OC	5% nominal value	Hypfe/Öpfe: 2% (nominal + stressed present value), Schipfe/Flupfe: 5% (nom. val.)	5% nominal value
Cover pool register	Yes	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	-	-	Legal: No; licence includes limitation*
Deferral of maturity	Yes, optional	Yes, mandatory	Yes, optional
Trigger Deferral of maturity	Insolvency, Resolution, Inability to pay Issuer, Lack of liquidity	Insolvency, Resolution	Resolution, Prevention of forced sales
CRD compliant	Yes	Yes (does not apply to aircraft Pfandbriefe)	Yes
ECB eligible	Yes	Yes	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ⁹ Owner of the CRH as of 30.12.2022: Credit Agricole SA – Credit Lyonnais 36.9%; Credit Mutuel 26.7%; Societe Generale 15.7%; BPCE 13.1%; BNP Paribas 7.6% ¹⁰ FGAS: Fonds de garantie a l'accession sociale / Guarantee Fund for Social Home Accession; ¹¹ Non-EEA assets are limited to 10% unless security is assured



Country	Ireland	Italy	Luxembourg
Designation	Asset Covered Securities	Obbligazioni Bancarie Garantite	Lettres de Gage (Publiques / Mobilieres / Hypothecaires / Energies renouvelables) Obligations Garanties Europeennes (European Covered Bonds) Obligations Garanties Europeennes Lettres de Gage du Qualite Superieur (High-quality European Covered Bonds)
Short form	ACS	OBG	LdG
Special bank principle	Yes	No	No
Owner of assets	Designated public / mortgage credit institution; (DPCI / DMCI)	SPV	Issuer
Public supervision / Regulator	Central Bank of Ireland (CBI)	Banca d'Italia (Bol)	Commission de Surveillance du Secteur Financier (CSSF)
Cover assets (if applicable incl. substitute cover)	Mortgage loans (Commercial max. 10%), Public sector loans, Bank loans	Mortgage loans, Public sector loans, Ship loans, Bank loans (max. 8-15%)	Mortgage loans, Public sector loans, Moveable assets, Bank loans, Loans for renewable energies
Substitute assets	Yes (accord. to Art. 129 CRR)	-	Yes
Limit of substitute assets	15%	-	20%
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	EEA, US, CA, JP, CH, AU, NZ	EEA, CH	EU, EEA, OECD, other (CQS 1: up to 50%; CQS 2: up to 10%)
Geographical scope - Public sector loans	EEA, US, CA, JP, CH, AU, NZ	EEA, CH	EEA, OECD, other
Loan to value - Mortgage loans	Residential: 75% Commercial: 60%	Residential: 80% Commercial: 60% (up to 70% with conditions)	Residential: 80% Other: 60% Renewable energy: 50% (up to 80%)
LTV calculation	Prudent Market value	Market value	-
Minimum OC	3% present value	Legal: no; Contractual: usually min. 7.5%	5% nominal value (10% LdG Publiques)
Cover pool register	Yes	Legal: No	Yes
Asset encumbrance * Issue limit ** Cover pool limit	-	Depending on the equity of the issuer**	20% of the total liabilities, if no special institution**
Deferral of maturity	Yes	Yes, optional	No
Trigger Deferral of maturity	Inability to pay, Instruction authority or administrator	Insolvency, Resolution, Bol measure	-
CRD compliant	Yes	Yes	programme-dependent
ECB eligible	Yes	Yes	programme-dependent

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research



Country	Netherlands	New Zealand	Norway
Designation	Geregistreerde Gedekte Obligaties	New Zealand Registered Covered Bonds	Obligasjoner med fortrinnsrett
Short form	GGO	-	OMF
Special bank principle	No	No	Yes
Owner of assets	SPV	SPV	Issuer
Public supervision / Regulator	De Nederlandsche Bank (DNB)	Reserve Bank of New Zealand (RBNZ)	Finanstilsynet (Financial Supervisory Authority)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Ship loans, Bank loans	Not regulated by law (in Practice: Mortgage loans)	Mortgage loans, Public sector loans, Loans collateralised with other assets, Bank loans
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	20%	Cash: no Limit	15%
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	EEA (practice NL)	Not regulated by law (practice NZ)	EEA (practice NO)
Geographical scope - Public sector loans	EEA	-	EEA
Loan to value - Mortgage loans	Residential: 80% Commercial: 60%/70% Ships: 60%	Not regulated by law, Asset Coverage Test limits valuation	Residential: 80% Commercial: 60%/70% Holiday / Leisure Real Estate: 60%
LTV calculation	Market value	Not regulated by law (Practice: Market value)	Market value
Minimum OC	5% nominal value	-	5% nominal 2% with Public claims
Cover pool register	No	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	-	10% of Total Balance Sheet**	-
Deferral of maturity	Yes, optional	Yes	Yes, optional
Trigger Deferral of maturity	Insolvency, Resolution, Inability to pay	-	Insolvency, Resolution
CRD compliant	Yes	No	Yes
ECB eligible	Yes	No	Yes

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research



Country	Poland	Portugal	Singapore
Designation	Hipoteczne Listy Zastawne / Publiczne Listy Zastawne	Obrigacoes Cobertas Europeia (Premium) Obrigacao Coberta Europeia	Singapore Covered Bonds
Short form	LZ	OCE Premium OCE	
Special bank principle	Yes	No	No
Owner of assets	Issuer	Issuer	Issuer / SPV
Public supervision / Regulator	Komisja Nadzoru Finansowego (KNF), Polish Financial Supervision	Comissao do Mercado de Valores Mobiliarios (CMVM)	Monetary Authority of Singapore (MAS)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Bank loans	Mortgage loans, Public sector loans, Ships, Bank loans	Residential mortgage loans, Cash, Singapore Government bonds, MAS Bills
Substitute assets	Yes	Yes	Yes
Limit of substitute assets	15%	15%	15% ¹²
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	PL	EU/EEA	- (Practice SG)
Geographical scope - Public sector loans	EEA, OECD	EU/EEA	
Loan to value - Mortgage loans	Residential: 80% Commercial: 60%	Residential: 80% Commercial: 60%/70% Ships: 60%	Residential: 80%
LTV calculation	Mortgage lending value	Market value	Market value
Minimum OC	5%	5% (OCE Premium, 10% if Commercial LTV above 70%); 10% OCE (Non-Premium)	3% nominal
Cover pool register	Yes	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	Max. 40 times the equity capital*	-	10% of Total Balance Sheet*
Deferral of maturity	Yes, second deferral possible by switching to CPT	Yes, optional	Yes, optional (Contractually regulated)
Trigger Deferral of maturity	Insolvency, Failed cover tests	Inability to pay, Withdrawal of banking licence	Contractually regulated
CRD compliant	Yes	Yes	No
ECB eligible	Yes	Yes	No

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ¹² The 15%-limit can be temporarily exceeded in order to build up the necessary liquidity to meet payments in the upcoming 12 months or to account for operational timing differences



Land	Singapur	South	Korea
Designation	europsky kryty dlhopis (premiovy) europsky kryty dlhopis	South Korean Covered Bonds	KHFC Covered Bonds
Short form	KD	-	KHFC
Special bank principle	No	No	Yes
Owner of assets	Issuer	Issuer	Issuer
Public supervision / Regulator	Central Bank of Slovakia (Narodna banka Slovenska, NBS)	Financial Services Commission (FSC)	Financial Supervisory Services
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Other Bank loans, Cash	Residential mortgage loans, Aircraft-and Ship loans, Public sector loans, RMBS	Mortgage loans
Substitute assets	Yes	Yes	-
Limit of substitute assets	10% (Premium)/ 20% (non Premium)	10%	-
Derivatives as cover assets	Yes	Yes	Yes
Geographical scope - Mortgage loans	Slovakia	KR	KR
Geographical scope - Public sector loans	Slovakia, EU	KR	-
Loan to value - Mortgage loans	Residential: 80% Commercial: 60%/70% Other: 70%	Residential: 70% Ships: 70% Aircraft: 70%	0%-100% ¹³
LTV calculation	Market value	Mortgage lending value	- (Contractually regulated)
Minimum OC	5% CRR Assets / Premium 10% Non Premium (nominal)	5% nominal value	- (Contractually regulated)
Cover pool register	Yes	Yes	Yes
Asset encumbrance * Issue limit ** Cover pool limit	-	4% of Total Balance Sheet (Presidential Decree)*	Up to 50 times the paid-up equity capital*
Deferral of maturity	Yes, optional	Yes, optional	Yes
Trigger Deferral of maturity	Insolvency, Inability to pay Issuer, Cancellation of the Covered Bond Programme	Inability to pay	-
CRD compliant	Yes	No	No
ECB eligible	Yes	No	No

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research; ¹³ No legal standard defined, valuation is determined individually based on the duration of the payment default in the transaction documents



Country	Spain	Sweden	Switzerland
Designation	Cedulas Hipotecarias Cedulas Territoriales Cedulas de internacionalizacion	Swedish Covered Bonds (Säkerställda Obligationer)	Contractual Law Based Covered Bonds
Short form	CH, CT, CI	-	-
Special bank principle	No	No	No
Owner of assets	Issuer	Issuer	SPV
Public supervision / Regulator	Banco de Espana	Finansinspektionen (Swedish Financial Supervisory Authority, SFSA)	Swiss Financial Market Supervisory Authority (FINMA)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans, Export loans, Bank loans	Mortgage loans (Commercial max. 10%), Public sector loans, Bank loans (max.15%)	Mortgage loans
Substitute assets	Yes	No	Yes (Contractually regulated)
Limit of substitute assets	10%	-	15%
Derivatives as cover assets	Yes	Yes	Yes (Contractually regulated)
Geographical scope - Mortgage loans	EEA	EEA (Practice SE)	CH (Contractually regulated)
Geographical scope - Public sector loans	EEA	EEA	-
Loan to value - Mortgage loans	Residential: 80% (max. 30y remaining maturity) Commercial: 60%	Residential: 80% Commercial: 60%/70%	Residential: 70%/80% (Contractually regulated)
LTV calculation	Prudent Market value	Market value	-
Minimum OC	5% nominal value	2% present value and nominal value	Contractually regulated
Cover pool register	Yes	Yes	No
Asset encumbrance * Issue limit ** Cover pool limit	-	-	-
Deferral of maturity	Yes, optional	Yes, optional	Yes (Contractually regulated)
Trigger Deferral of maturity	Insolvency, Resolution, Lack of liquidity, Breach of liquidity regula- tions	Permission by the FSA to avoid Insolvency	Issuer default, Lack of liquidity
CRD compliant	Yes	Yes	No
ECB eligible	Yes	Yes	No

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research



Country United Kingdom

Designation	Regulated Covered Bonds
Short form	RCB
Special bank principle	No
Owner of assets	SPV
Public supervision / Regulator	Financial Conduct Authority (FCA)
Cover assets (if applicable incl. substitute cover)	Mortgage loans, Public sector loans (incl. PPP loans & social housing), Bank loans
Substitute assets	Yes
Limit of substitute assets	10%
Derivatives as cover assets	Yes
Geographical scope - Mortgage loans	UK (Practice), EEA, CH, US, CA, JP, NZ, AU, Channel Islands , Isle of Man
Geographical scope - Public sector loans	UK, EEA, CH, US, CA, JP, NZ, AU, Channel Islands , Isle of Man
Loan to value - Mortgage loans	Residential: max. 80% (In individual programmes partly different according to FCA)
LTV calculation	Market value (indexed, price increases with 15% discount, price decreases full)
Minimum OC	8% nominal
Cover pool register	Yes
Asset encumbrance * Issue limit ** Cover pool limit	FCA approval required for each issue
Deferral of maturity	Yes, optional
Trigger Deferral of maturity	Insolvency, Resolution, Inability to pay
CRD compliant	No
ECB eligible	Yes (if in EUR denominated)

Source: ECBC, national legislation, NORD/LB Markets Strategy & Floor Research



Regulatory Central bank-eligibility of covered bonds

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

ECB: Covered bonds as eligible collateral

For credit institutions, the provision of collateral is an important criterion in the course of borrowing from central banks. The central banks attach great importance to covered bonds. They are among the Eligible Assets in the ECB Collateral Framework and can be deposited as collateral if the relevant criteria are met. In an international comparison, the eligibility criteria vary depending on the currency of issue, the rating, the issued volume, the coupon or the home jurisdiction (cf. overview table) and lead to different haircuts for eligibility as collateral. Covered bonds have played a not insignificant role at the ECB in the recent past, also in the context of TLTRO refinancing. This is due, among other things, to the fact that in the Eurozone retained covered bonds can generally be used as collateral in the Eurosystem, albeit with additional haircuts (Directive (EU) 2016/65).

EECB criteria allow for a broad range of international covered bonds

In principle, eligibility applies to legally regulated, euro-denominated investment grade covered bonds from the EEA. This specification is extended to include the currencies USD, GBP and JPY on the basis of the ECB's Temporary Guidelines. In addition, covered bonds from G10 jurisdictions can also be submitted as collateral as a softening of the EEA restriction. In practice, this extension only includes covered bonds from Canada and the United Kingdom.

ECB Eligible Assets Database

The ECB provides information on its homepage with regard to the list of eligible collateral. The <u>download area</u> provides access to the entire database as well as to the changes since the previous working day. In addition, it can be assessed on a <u>query basis</u> whether a security is recognised as collateral.

Global assessment of the eligibility of covered bonds for central banks

In the following table we present not only the ECB criteria for covered bonds in the context of repo eligibility but also the standards of central banks outside the Eurosystem. For the purpose of comparison, the table summarises key aspects of the different sets of criteria. An important distinguishing feature in some currency areas is the suitability as "own-use" collateral. In principle, a connection can be derived between the systemic relevance of covered bonds and their possible use as collateral. For a detailed analysis, we also refer to the central banks' compilations of covered bonds suitable or used as collateral.



Regulatory

Table: Central bank eligibility of covered bonds ¹ Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

		Eurozone	United I	Kingdom	Switzerland	United States
		European Central Bank	Bank of	<u>England</u>	Swiss National Bank	<u>Federal</u> <u>Reserve Bank</u>
Eligibility crite	ria	<u>link</u>	<u>lir</u>	<u>1k</u>	<u>link</u>	<u>link</u>
Eligible securit	ies	<u>link</u>	<u>lir</u>	<u>1k</u>	<u>link</u>	
Category		Category II	Level B	Level C	L2A, L2A CHF	German Jumbo Pfandbrief
Rating require	ments	Min. BBB-/Baa3	AAA/Aaa equivalent	A-/A3 equivalent	Min. AA-/Aa3	AAA/Aaa
Rating agencie	es	ECAI (accepted for ECAF, at present: DBRS, Fitch, Moody's, S&P)	-	-	Fitch, Moody's, S&P	-
Rating treatme	ent	First best	-	-	Second best	-
Min. volume (home current	cy)		> GBP 1.0bn	-	CHF 100m	German Jumbo
	-		> EUR 1.0bn	-	CHF 1.0bn	Pfandbrief AAA/Aaa
Own-use		✓	×	✓	×	-
	TtM	✓	✓	✓	×	✓
Rating requiremen Rating agencies Rating treatment Min. volume (home currency) Min. volume equiv (foreign currency) Own-use Haircuts based on Currencies	Coupon	✓	✓	✓	×	✓
	Currency	✓	✓	✓	×	✓
		Own-use	-	-	-	Federal Reserve Bank link German Jumbo Pfandbrief AAA/Aaa - German Jumbo Pfandbrief - - - - - - - - - - - - -
	EUR	✓	✓	✓	✓	✓
	USD	✓	✓	✓	✓	✓
	GBP	✓	✓	✓	✓	✓
	JPY	✓	×	×	×	✓
	CHF	×	✓	✓	✓	✓
	SEK	×	✓	✓	✓	✓
Currencies	NOK	×	×	×	✓	×
	DKK	×	×	×	✓	✓
	CAD	×	✓	✓	×	✓
	AUD	×	✓	✓	×	✓
	NZD	×	×	×	×	×
	PLN	×	×	×	×	×
	EU	✓	-	✓	✓ (non CHF-Bonds)	-
	EEA	✓	-	✓	✓ (non CHF-Bonds)	-
Country of	G10	✓	-	×	×	-
issuance	others	-	UK, DE, FR	US	UK (non CHF-Bonds), CH; CHF bonds: no limitations	DE

¹ The table serves exclusively to ensure comparability of the requirements for eligible collateral and therefore does not address possible special/individual cases. In order to determine the central bank eligibility of securities, a case-by-case examination is therefore indispensable and cannot be carried out exclusively on the basis of this table..

Source: National central banks, NORD/LB Markets Strategy & Floor Research



Table: Central bank eligibility of covered bonds ¹ (Continued)

		Sweden	Norway	Denmark	Poland
		Sveriges Riksbank	Norges Bank	<u>Danmarks</u> <u>Nationalbank</u>	Narodowy Bank Polsk
Eligibility crite	ria	<u>link</u>	<u>link</u>	<u>link</u>	<u>link</u>
Eligible securit	ies	<u>link</u>	<u>link</u>	<u>link</u>	<u>link</u>
Category		Category 2	Category 2,3 & 4	Category 2 & 3	Mortgage Bonds
Rating require	ments	Min. AA-/Aa3	Min. BBB-/Baa3	-	-
Rating agencie	es	Fitch, Moody's, S&P	Fitch, Moody's, S&P, Scope	-	-
Rating treatme	ent	≥ two ratings: at least two min. AA- /Aa3	Second best	-	-
Min. volume (home currence	cy)	SEK 100m	NOK 300m	Category 2: EUR 1,000m	PLN 10m
	-	SEK 100m	EUR 100m	Category 3: -	×
Own-use		×	✓		-
	TtM	✓	✓	✓	✓
Rating requirement Rating agencies Rating treatment Min. volume home currency) Min. volume equ foreign currency	Coupon	✓	✓	×	✓
	Currency	✓	✓	✓	×
based on		Theoretical and/or old price	Own-use	Theoretical price	-
	EUR	✓	✓	✓	×
	USD	✓	✓	×	×
	GBP	✓	✓	×	×
	JPY	✓	✓	×	×
	CHF	×	✓	×	×
	SEK	✓	✓	×	×
Currencies	NOK	✓	✓	×	×
	DKK	✓	✓	✓	×
	CAD	×	✓	×	×
	AUD	×	✓	×	×
	NZD	×	✓	×	×
	PLN	×	×	×	✓
	EU	-	✓	-	-
Carratus (EEA	-	✓	-	-
Country of	G10	Sveriges Riksbank Iink I	×		
issuance	others			DK	PL

¹ The table serves exclusively to ensure comparability of the requirements for eligible collateral and therefore does not address possible special/individual cases. In order to determine the central bank eligibility of securities, a case-by-case examination is therefore indispensable and cannot be carried out exclusively on the basis of this table..

Source: National central banks, NORD/LB Markets Strategy & Floor Research



Table: Central bank eligibility of covered bonds ¹ (Continued)

		Canada	Australia	New Zealand
		Bank of Canada	Reserve Bank of Australia	Reserve Bank of New Zealand
Eligibility criter	ia	<u>link</u>	link	link
Eligible securit			link	link
Category		Covered Bonds	ADI Bonds	Covered Bonds
Rating require	ments	AAA equivalent	Minimum average rat- ing: BBB-	AAA/Aaa
Rating agencie	S	-	Fitch, Moody's, S&P	Acceptable rating agencies
Rating treatme	nt	-	At least two ratings	at least two ratings; more than two ratings: at least two AAA/Aaa and no rating lower than AA+/Aa1
Min. volume (home currence	y)	CAD 1m	-	-
Min. volume ed (foreign curren		×	-	-
Own-use		×	×	×
	TtM	✓	✓	✓
Haircuts	Coupon	×	×	×
based on	Currency	✓	×	×
		-	Average credit rating	-
	EUR	×	×	×
	USD	✓	*	*
	GBP	×	*	*
	JPY	×	×	×
	CHF	×	×	×
	SEK	×	×	×
Currencies	NOK	×	×	×
	DKK	×	×	×
	CAD	✓	×	×
	AUD	×	✓	×
	NZD	×	×	✓
	PLN	×	×	×
	EU	×	×	×
Country of	EEA	×	×	×
issuance	G10	-	×	×
	others	CA	AU	NZ

¹ The table serves exclusively to ensure comparability of the requirements for eligible collateral and therefore does not address possible special/individual cases. In order to determine the central bank eligibility of securities, a case-by-case examination is therefore indispensable and cannot be carried out exclusively on the basis of this table..

Source: National central banks, NORD/LB Markets Strategy & Floor Research



Regulatory

Repayment structures on the covered bond market

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Repayment structures for covered bonds

The implementation of the Covered Bond Directive in the national legislation of jurisdictions in the European Economic Area in 2022 has also left its mark on the covered bond market with regard to the repayment structures coming into effect. The Directive has ultimately given national legislators the option of including the deferment of maturity in the official framework for covered bonds. If the option of deferring maturity were included in the context of the standardisation process, this would also be associated with the requirement to define objective triggers for the deferment of maturity in the legal framework. Since no standard approach was chosen by the respective national legislators when implementing the relevant article in the Directive in national legislation, the European covered bond market remains distinctly heterogeneous here. In our opinion, implementation of the Directive provides investors, who focus on the latest possible repayment date for their investment in a fundamental consideration, with the clear benefit that the statutory incorporation of triggers for deferring maturity delivers a greater degree of objectivity, although national implementation varies. In most cases, the option for deferring the maturity date in conjunction with specific triggers was previously included in the programme documentation of the bonds in question or issuance programmes. Implementation of the requirements laid down in the Directive will, we believe, favour continuation of the trend whereby the hard bullet structures usually relied on in the past are less popular, with soft bullet structures now becoming even more established as the form most frequently chosen for EUR benchmarks. Bonds with a conditional pass-through structure (CPT) also continue to feature on the market occasionally. In the following, we will first present the structures used and then give an overview of the current weighting of these repayment structures in the EUR benchmark segment.

Basic considerations on deferring maturity

The aim of deferring maturity is to create opportunities to counteract risks resulting from maturity mismatches and potential shortages of liquidity. To create this option for mitigation in principle, the Covered Bond Directive also stipulates that the responsible national entities are free to permit extendable maturity structures, as mentioned at the beginning. If these are permitted, the event that triggers the extension or deferral of maturity is crucial for these structures. This trigger event was already of relevance before the Directive was implemented, albeit not enshrined in law (see following paragraph on soft bullet structures). As a rule, bond investors are provided with detailed information regarding the trigger, the effects on the maturity structure if the debtor is unable to pay and the role of the supervisory authority and the trustee in the wake of maturity being deferred. Starting from the "old market standard" of hard bullet bonds, we present the different approaches below.



Hard bullet structures: no option for deferring maturity

Until a few years ago, hard bullet structures were regarded as market practice as far as repayment arrangements for covered bonds were concerned. If the issuer is not able to comply with their outstanding payment obligations, the dual recourse mechanism means that investors have access to the covered bond programme's cover pool via the trustee or administrator – regardless of the repayment structure chosen. If repayment of an issue is imminent and the available cash is not sufficient to service this obligation and liquidity cannot be generated by other means, the collateral in the pool will be sold under a hard bullet structure. As a result, investors can firstly expect prompt repayments, while secondly this structure is associated with the risk that discounts on the market values of the cover assets have to be accepted and in the worst case the complete amount to be repaid will not be covered by the proceeds of the sale.

Soft bullet structures: maturity deferred through trigger events

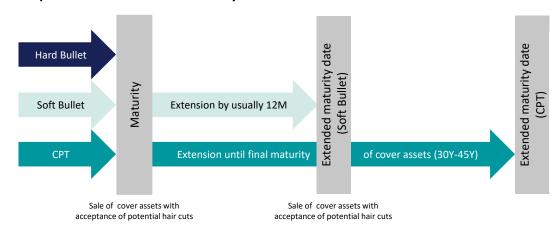
Soft bullet bonds, and in rare cases CPT structures, exist to counter this risk. If investors' claims can be met at the original maturity date, there are no differences between the three repayment structures for investors. Since there were no fundamental requirements regarding the events needed to trigger any deferral of maturity without the Directive, specific information was regularly to be found in the programme documentation and final terms of issuers from those jurisdictions that had not ruled out any deferral of maturity. Various approaches for these triggers took shape on the market. Examples of different models within the soft bullet variant are (i) the issuer becoming insolvent, and redemption being deferred to a later repayment date by an independent trustee or (ii) deferral of the original repayment date by the issuer. With regard to the possible deferral period, a deferral of maturity of twelve months has become established in most cases among the soft bullet structures. Interest payments during the deferral period are largely based on 1M- or 3M-Euribor plus a premium or discount which is, however, also partly defined as a fixed coupon. Trigger events in European Member States will only now be enshrined in law with the implementation of the Covered Bond Directive in national legislation. However, significant differences can be identified in this instance as well. We list the trigger events in the table below.

Conditional pass-through structures: actual final maturity is uncertain

A significantly longer deferral of the original repayment date may occur with bonds that have a CPT structure. At the same time, the refinancing risk is reduced to a minimum as a result. In contrast to the soft bullet structure, the repayments of outstanding covered bond issues will be made firstly depending on the inflows generated from the associated cover assets, but secondly also from the sale of cover assets if this can be effected at adequate market prices following the triggering of the pass-through structure (for which, similarly to soft bullets, there are no standard trigger events). However, unlike the soft bullet structure, the date on which investors can expect the outstanding claims to be met cannot be determined ex ante – in the worst case not until the cover assets with the longest maturity fall due. Rating agencies see a positive influence in the wake of the credit assessment in soft bullet and even more so CPT structures due to the lower refinancing risk.



Comparison of the different maturity structures



Source: NORD/LB Markets Strategy & Floor Research

Poland – an exception: soft bullet with the option to convert to CPT

With regard to the maturity structure, Poland can be considered an exception. Covered bonds which cannot be serviced when they mature are initially extended for twelve months. During this extension period, a test is carried out at six-month intervals to determine whether there are sufficient assets to service investors' claims and also sufficient liquidity to service these claims on time. If the tests are not passed, the bond will be transferred to a CPT structure. The repayment date will therefore be postponed to the latest date on which the cover assets mature plus three years. However, such an extension can be prevented with a 2/3 majority of the investors. Polish covered bonds are therefore initially soft bullet bonds, for which the final maturity cannot be unequivocally determined in advance because of the possible conversion to a CPT structure, meaning that their repayment structure cannot be clearly assigned to one of the three repayment forms.

Slovakia – an exception: soft bullet with potential second maturity deferral

Slovakia also differs somewhat from the market standards that came into force as a result of a change in the law on 1 January 2018. Accordingly, the new legal framework initially envisages deferring the maturity by twelve months in the event of insolvency. Should any servicing of investors' claims not be foreseeable at the end of the extension period, the programme can be transferred to one or more other Slovakian banks. If such a transfer is not possible within the first extension period, a further deferral of maturity by another twelve months may be approved by the regulator. Both those bonds that were extended because of the first deferral and those where the maturity dates occur in the second 12-month period will be affected by the renewed extension. The Slovakian EUR benchmark covered bonds in the iBoxx EUR Covered are therefore soft bullet issues where the structure differs, however, because of the option to defer maturity twice. In our opinion, Slovakian issues can be clearly assigned to the soft bullet segment (in contrast to issues from Poland), albeit with a maximum extension of 24 months.



Overview of possible triggers for deferring maturity: global covered bond market

Country Trigger Event

Australia Insolvency, inability to pay by the issuer

Belgium Bankruptcy, resolution, inability to pay by the issuer

Denmark RO: Refinancing of CB not guaranteed, interest rate increases by 5% or more;

SDO: Refinancing of CB not guaranteed

SDRO: Refinancing of CB not guaranteed, interest rate increases by 5% or more

Germany Bankruptcy, resolution issuer

Estonia Insolvency, moratorium, expiry of admission, dissolution of the issuer

Finland payment default, lack of liquidity

France OF: bankruptcy, resolution, payment default, lack of liquidity

OH: bankruptcy, resolution, payment default, lack of liquidity CRH bankruptcy, resolution, payment default, lack of liquidity

Ireland Payment default, instruction from the supervisory authority or administrator

Iceland Resolution, prevention of forced sales

ItalyInability to pay, resolution issuer, Bol measuresCanadaInsolvency, payment default issuer, additional events

Luxembourg -New Zealand -

Netherlands Bankruptcy, resolution, inability to pay by the issuer

Norway Bankruptcy, resolution of the issuer
Austria Bankruptcy, resolution of the issuer
Poland Insolvency, failed cover pool test

Portugal Inability to pay, withdrawal of banking licence

Sweden FSA permission to avoid bankruptcy

Singapore Contractually regulated

Slovakia Insolvency, inability to pay by the issuer, cancellation of the covered bond programme

Spain Bankruptcy, resolution, lack of liquidity, breach of liquidity provisions

South Korea South Korean covered bonds: inability to pay by the issuer

KHF covered bonds: -

Switzerland Issuer default, lack of liquidity

Czech Republic Bankruptcy, resolution, inability to pay by the issuer, breach of liquidity provisions

United KingdomBankruptcy, resolution, inability to pay by the issuer
Source: Respective national legislation, market data, NORD/LB Markets Strategy & Floor Research

Soft bullet and CPT bonds under the CBPP3 and in the case of repo transactions

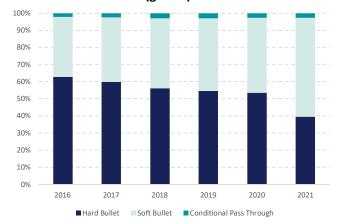
Covered bonds with a CPT structure are subject to special requirements because of their maturity, which can be very long under certain circumstances Thus, under the now expiring CBPP3, the ECB did not purchase covered bonds with such a structure, but in our understanding also justified this decision with the relatively manageable size of the CPT market. CPT bonds also have a unique feature in the context of repo transactions with the ECB. Adjustments to the valuation discounts are of relevance for own-use soft bullet or CPT covered bonds. Accordingly, it is not the originally envisaged maturity but the extended one that is used to determine the haircut. Following this approach, the maturity would have to be extended by one year as a rule for a soft bullet structure, while all CPT structures would fall within the maturity range of ">10 years" because of the theoretically very long extension period when calculating the haircut. In December 2022, the ECB reviewed its risk control framework and, in doing so, also adjusted requirements for discounting collateral as part of repo transactions. Since 29 June 2023, the previous maturity range "> 10 years" was split into the ranges "10 to 15 years", "15 to 30 years" and "> 30 years" for the residual maturity. In our opinion, CPT structures would therefore have to be classified in the category "> 30 years".



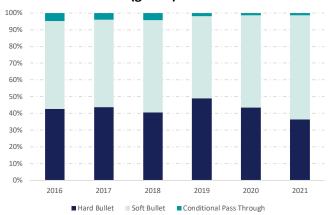
ECBC – repayment structures: soft bullets account for the largest share of issues in 2021

On the basis of the ECBC's annual statistics as of 31 December 2021, the market for all outstanding and newly issued covered bonds can be subdivided with regard to their maturity structure. For the first time since this data was recorded for 2016, soft bullet structures account for the largest proportion of the volume of outstanding bonds, at 58% (2020: 44%). Essentially, this reflects the fact that the amendment of the German Pfandbrief Act transferred all hard bullet structures (2020: EUR 371,947m) to soft bullet structures (2020: -; 2021: EUR 391,366m). With respect to newly issued covered bonds in 2021, 62% are attributable to soft bullet issues and 36% (2020: 44%) to hard bullets. At 3% (outstanding volume) and 1% (new issues in 2021) respectively, the category of CPT bonds accounts for only comparatively minor shares.

Covered bond volume (global) - breakdown



Covered bond issues (global) - breakdown



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

iBoxx EUR Covered: influence of EU harmonisation on repayment structures

It is already clear from the comments above that the refinancing risk can be significantly reduced by means of a soft bullet or CPT structure compared with a hard bullet structure. In this respect it is not surprising that soft bullet structures are also especially common in third countries, as the Covered Bond Directive refers to them. Here, in particular, investment in such a covered bond requires detailed analysis of the relevant bond conditions in advance, as the Covered Bond Directive does not apply to "all countries" and was not implemented uniformly either. Therefore, investors must continue checking what happens to interest payments in the extension period when a trigger event occurs. With regard to the refinancing risk following insolvency on the part of the issuer, it must, however, be mentioned that issuers were already in some cases obliged by law to reduce this risk by maintaining a liquidity buffer for hard bullet structures. In the wake of harmonisation, article 16 of the Covered Bond Directive also provides for the fact that the introduction of a liquidity buffer to cover the net liquid outflows for 180 calendar days was mandatory for all jurisdictions subject to the regulation.



Composition of the iBoxx EUR Covered: maturity structures

While the shifts with regard to the weightings of maturity structures in the iBoxx EUR Covered initially took place generically if anything – the pivot by some issuers in the Netherlands from CPT to soft bullet must be cited as an example – the harmonisation of the European covered bond market added a significant driver. This is clearly recognisable from the example of the German Pfandbrief market. However, the adjustments to the legislation mean that more soft bullet issues are to be expected in other jurisdictions as well. Furthermore, no national legislator has preferred a "big bang" solution along the lines of the adjustments to the Pfandbrief Act and pivoted hard to extendable structures. This is currently the case, in particular, for those countries that have active issuers with both hard bullets and extendable structures. We refer to the composition of the iBoxx in August 2023 below.

Pure soft bullet issuers dominate the iBoxx EUR Covered

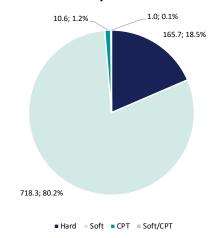
With 114 of 156 issuers (73%), the majority of the issuers listed in the iBoxx EUR Covered (excl. Spanish multi-cedulas) are those that currently only have outstanding benchmarks with a soft bullet structure. At present, only 8% (twelve issuers) is attributable to institutions that have exclusively hard bullets and 3% (four issuers) to purely CPT institutions. As a result, a clear model can be assigned to 83% of the institutions with outstanding EUR benchmarks. In contrast, the remaining 17% is attributable to issuers that have outstanding benchmarks with two different maturity structures. Here, the combination of hard and soft bullets is the most frequent case, at 14% (21 issuers). NIBC Bank, Aegon Bank, Van Lanschot Kempen (all NL) and Deutsche Bank (DE) have EUR benchmarks with soft bullet and CPT structures. In addition to the Pfandbriefe placed on the basis of the Pfandbrief Act, Deutsche Bank therefore has a CPT benchmark based on a contractual basis. The EUR benchmarks of Poland's PKO Bank Hipoteczny are disregarded at this point due to their hybrid maturity structure, to avoid confusion with those issuers that have both outstanding soft bullet and CPT bonds.

Breakdown of repayment structures at issuer level

5; 3.2% 4; 2.6% 12; 7.7% 114; 73.1%

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

EUR benchmark volume by structure

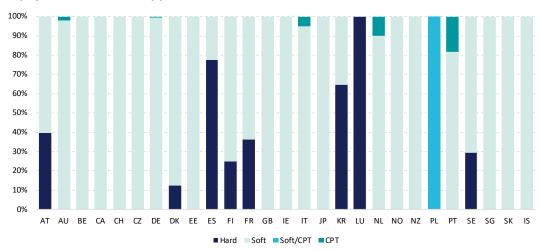




Largest outstanding volume attributable to soft bullet EUR benchmarks

At EUR 718.3 (more than 80%), the largest share of the volume contained in the iBoxx (i.e. excluding Spanish multi-cedulas) by far is now attributable to soft bullet covered bonds. EUR benchmarks with a CPT structure still constitute a niche within the benchmark segment, since only around 1% of the iBoxx volume is attributable to bonds with this structure. Traditional hard bullets account for EUR 165.7bn or 19%, respectively. France accounts for hard bullet issues amounting to EUR 81.9bn, while the next largest amounts are attributable to Spain (EUR 41.6bn), Austria (EUR 20.5bn) and Sweden (EUR 8.3bn). In our opinion, it is worth mentioning in this context that France (EUR 143.5bn; June 2022: EUR 114.1bn) but also Austria (EUR 31.4bn; June 2022: EUR 19.0bn) and Sweden (EUR 19.8bn; June 2022: EUR 14.6bn) have rapidly rising volumes of soft bullets.

Repayment structures by jurisdiction



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

Numerous jurisdictions with different repayment structures

With regard to the dissemination of the three repayment structures at jurisdiction level, it is also apparent that only Luxembourg has EUR benchmarks with solely hard bullet structures represented in the iBoxx. On the other hand, there are 13 jurisdictions, namely Belgium, Canada, Czech Republic, Estonia, the UK, Ireland, Japan, Norway, New Zealand, Singapore, Slovakia as well as Iceland and Switzerland, from which only EUR denominated soft bullet benchmarks are included. Polish EUR benchmarks also feature a uniform (hybrid) maturity structure. CPT bonds were also issued from Australia, Germany, Italy, the Netherlands and Portugal. There is more than one repayment model in 13 of the 27 jurisdictions represented. For these, we provide a tabular overview of the individual issuers and the maturity models they use below. Here, the fact that, under certain circumstances, repayment structures are also used in the respective jurisdictions — and even by the listed issuers — that may differ from those of EUR benchmarks or are no longer listed in the iBoxx because of their residual term, must be taken into account. However, for reasons of clarity, we focus solely on EUR benchmarks in the iBoxx EUR Covered (excl. Spanish multi-cedulas) in our article.



Repayment structures Austria

Repayment structures Italy

	Hard	Soft		Soft	CPT
BAWAG PSK	Χ	Χ	Banca Monte dei Paschi di Siena		Χ
Erste Group Bank	Χ	Χ	Banco BPM	Χ	
HYPO NOE		Χ	Banco di Desio e della Brianza	Χ	
Hypo Tirol Bank		Χ	BPER Banca	Χ	
Hypo Vorarlberg Bank	Χ	Χ	Credit Agricole Italia	Χ	
Raiffeisen Bank International		Χ	Credito Emiliano	Χ	
Raiffeisenlandesbank Niederösterreich-Wien	Χ	Χ	Iccrea Banca	Χ	
Raiffeisenlandesbank Oberösterreich	Χ	Χ	Intesa Sanpaolo	Χ	
Raiffeisen-Landesbank Steiermark	Χ	Χ	Mediobanca Banca di Credito Finanziario	Χ	
Raiffeisenlandesbank Vorarlberg	Χ		UniCredit	X	
Raiffeisen-Landesbank Tirol		Χ			
UniCredit Bank Austria	Χ	Χ			
Volksbank Wien	Χ				

Source: Market data, NORD/LB Markets Strategy & Floor Research, bold = changes compared with May 2023

Repayment structures in Austria

In Austria, EUR benchmarks with a soft bullet structure (EUR 31.4bn) are now dominant. In total, eleven of the 13 Austrian issuers now have outstanding EUR benchmarks with an option to extend the maturity. The volume of hard bullet stands at EUR 20.5bn.

Repayment structures in Italy

Italy is one of the jurisdictions in which covered bonds with CPT structures are outstanding (EUR 2.0bn), even though bonds with such a structure play a rather subordinate role on the Italian market for publicly placed EUR benchmarks compared with soft bullet bonds (EUR 36.8bn). Italy is an exception in that issuers had to cope with a significant delay in the final implementation of the Covered Bond Directive.

Repayment structures in Denmark

With regard to the Danish market, we would like to highlight the issues by Danish Ship Finance (Danmarks Skibskredit), since they differ not only because of their cover assets (shipping mortgages) but also the repayment structure (hard bullet). The bonds are issued as hard bullets, whereas Danske Bank and Jyske Realkredit have each placed their EUR benchmarks on the market with soft bullet structures (extension of up to twelve months). There are now legal triggers in Denmark for deferring maturities under soft bullet structures.

Repayment structures Denmark

Repayment structures Finland

	Hard	Soft		Hard	Soft
Danmarks Skibskredit	Χ		Aktia Bank		Χ
Danske Bank		Χ	Danske Mortgage Bank		Χ
Jyske Realkredit		Χ	Nordea Kiinnitysluottopankki	Χ	Χ
			Oma Saastopankki Oyj		Χ
			OP Mortgage Bank		Χ
			SP-Kiinnitysluottopankki		Χ

Source: Market data, NORD/LB Markets Strategy & Floor Research, **bold** = changes compared with May 2023



Repayment structures in Finland

Of the currently outstanding EUR benchmarks placed on the market by Finnish issuers, only the seven issues by Nordea Mortgage Bank are bonds with a hard bullet structure. In contrast, the five other issuers have 27 EUR benchmarks outstanding in total with a soft bullet structure giving the option to extend maturity by twelve months in each case. Nordea Mortgage Bank also issued its first soft bullet bond in 2022, meaning that now all six Finnish issuers have issued bonds with this structure.

Repayment structures in France

There are sixteen issuers in total in France, of which there are thirteen issuers that have designed their bonds with a uniform maturity structure, i.e., they have issued solely hard or soft bullet bonds. The majority, namely eleven institutions, are issuers that have the option of extending the maturity of their bonds. When this article was published in October 2022, CRH, CAFFIL and CFF only had hard bullet bonds outstanding, but this is now only the case for CAFFIL and CFF. There have also been changes in the iBoxx in relation to issuers that placed EUR benchmarks with both hard and soft bullet structures in the past. Only three institutions are now represented in the index with both hard bullets and soft bullets.

Repayment structures France

Repayment structures Germany

	Hard	Soft		Soft	СРТ
Arkea Home Loans SFH		Χ	Aareal Bank	Х	
Arkea Public Sector SCF		Χ	Bausparkasse Schwäbisch Hall	Χ	
AXA Bank Europe SCF		Χ	Bayerische Landesbank	Χ	
AXA Home Loan SFH		Χ	Berlin Hyp	Χ	
BNP Paribas Home Loan SFH	Χ	Χ	Commerzbank	Χ	
BPCE SFH	Χ	Χ	Deutsche Apotheker-und Ärztebank	Χ	
Caisse de Refinancement de l'Habitat	Χ	Χ	Deutsche Bank	Χ	Χ
Caisse Francaise de Financement Local	Χ		Deutsche Kreditbank	Χ	
Cie de Financement Foncier	Χ		Deutsche Pfandbriefbank	Χ	
Credit Agricole Home Loan SFH		Χ	DZ HYP	Χ	
Credit Agricole Public Sector SCF		Χ	Hamburg Commercial Bank	Χ	
Credit Mutuel Home Loan SFH		X	Hamburger Sparkasse	Χ	
HSBC SFH France		Χ	ING-DiBa	Χ	
La Banque Postale Home Loan SFH		Χ	Landesbank Baden-Wuerttemberg	Χ	
MMB SCF		Χ	Landesbank Hessen-Thueringen Girozentrale	Χ	
Societe Generale SFH		Χ	Muenchener Hypothekenbank	Χ	
			Norddeutsche Landesbank-Girozentrale	Χ	
			Santander Consumer Bank	Χ	
			Sparkasse KoelnBonn	Χ	
			Sparkasse Pforzheim Calw	Χ	
			UniCredit Bank	Χ	
			Wuestenrot Bausparkasse	Х	

 $Source: Market \ data, NORD/LB \ Markets \ Strategy \ \& \ Floor \ Research, \ \textbf{bold} = changes \ compared \ with \ May \ 2023$



Repayment structures in Germany

The adjustment to the legal basis for issuing Pfandbriefe in Germany implemented maturity extensions for all outstanding and new Pfandbriefe to be issued, which we consider to be soft bullets. Deutsche Bank has also had a bond with a CPT structure since November 2019. For this purpose, Deutsche Bank relied on a contractual covered bond, which does not therefore constitute an issue within the meaning of the German Pfandbrief Act and is therefore not a Pfandbrief.

Repayment structures in Sweden

In Sweden, all five issuers now rely on covered bonds with the option to extend maturity. While SCBC and Stadshypotek are solely represented in the iBoxx EUR Covered with soft bullet bonds, SEB, Swedbank and LF Hypothek, which placed its first soft bullet issue in May 2022, are now represented with both repayment structures in the iBoxx. In terms of volume, it is apparent that hard bullet bonds (EUR 8.3bn) have fallen further behind Swedish soft bullet bonds, which have a volume of EUR 19.8bn in the iBoxx.

Repayment structures Sweden Repayment structures Portugal Hard Soft Soft CPT **Banco Santander Totta** Χ Χ Lansforsakringar Hypotek Χ Х Χ Caixa Economica Montepio Х Skandinaviska Enskilda Banken Stadshypotek Χ **Banco BPI SA** X Sveriges Sakerstallda Obligationer Χ Χ Swedbank Hypotek Χ

Source: Market data, NORD/LB Markets Strategy & Floor Research, bold = changes compared with May 2023

Repayment structures in Portugal

In addition to Australia, Germany, Italy and the Netherlands, Portugal is the fifth national market in which EUR benchmarks have conditional pass-through structures. Only the bond issued by Montepio has the option of extending maturity in CPT form, which specifically envisages maturity being extended by up to 45 years. Banco Santander Totta relied on a soft bullet structure.

Repayment structures in the Netherlands

Following the introduction of the CPT repayment structure by NIBC Bank in 2013, it was followed by four further issuers with bonds in CPT format, namely Achmea Bank, Van Lanschot, Aegon Bank and NN Bank. Currently, there are still three banks with CPT structures, with the Netherlands boasting not only the most CPT EUR benchmark issuers but also by far the most CPT benchmarks (14 deals) the world. in In April NN Bank put the proposal to convert outstanding CPT bonds to soft bullet structures to a vote in a meeting of bondholders. In June 2023, Achmea Bank also carried out such a reconciliation, which has already been transferred to soft bullet structures. At EUR 63.6bn, the volume of soft bullet bonds is more than nine times as high as that of CPT bonds (EUR 7.0bn). However, the gap is not quite as pronounced as far as the number of issues is concerned: 58 soft bullet deals compare with 14 issues in CPT format. The fact that all four issuers that used CPT structures in the past now also issue bonds in soft bullet format means that the preponderance of soft bullets compared with CPT deals will increase further.



Repayment structures Netherlands

Repayment structures Australia

	Soft	CPT		Soft	CPT
ABN AMRO Bank	Χ		Australia & New Zealand Banking Group	Χ	
Achmea Bank	Χ		Bank of Queensland		Χ
Aegon Bank	Χ	Χ	Commonwealth Bank of Australia	Χ	
Cooperatieve Rabobank	Χ		Macquarie Bank	Х	
de Volksbank	Χ		National Australia Bank	Χ	
ING Bank	Χ		Westpac Banking Corp	Χ	
Nationale-Nederlanden Bank	Χ				
NIBC Bank	Χ	Χ			
Van Lanschot Kempen	X	Χ			

Source: Market data, NORD/LB Markets Strategy & Floor Research, bold = changes compared with May 2023

Repayment structures in Australia

Before the hard bullet covered bond issued by the ANZ Banking Group (maturity July 2022) dropped out of the iBoxx because of its residual term or later maturity some time ago, Australia was the only jurisdiction to have all three maturity structures in the index at times. At present, one issuer, namely the Bank of Queensland, has bonds in CPT format outstanding (outstanding volume EUR 0.6bn; one deals). Soft bullet issues account for by far the largest share of the volume, at EUR 28.2bn

Repayment structures in Spain

Since the first soft bullet (dual tranche) issued by Banco Santander in September 2022, the heavyweight market of Spain (EUR 53.6bn in EUR benchmark covered bonds) has also ranked among those jurisdictions in which covered bonds have various maturity structures. Nationwide, there are eleven covered bond issuers that have hard bullet bonds outstanding – in total 34 bonds – including Banco Santander. Soft bullet structures are clearly gaining ground as a result of the new legislation. Since consideration of the repayment structures in October 2022, BBVA, Banco de Sabadell, Bankinter, Caja Rural de Navarra sowie Cajamar Caja Rural have significantly expanded the group of issuers represented with outstanding soft bullet covered bonds in the iBoxx. The 34 hard bullets in the iBoxx EUR Covered compare with ten soft bullet covered bonds (EUR 12.0bn).

Repayment structures Spain

Repayment structures South Korea

	Hard	Soft		Hard	Soft
Abanca Corp Bancaria	X		Kookmin Bank		Χ
BBVA	X	Χ	Korea Housing Finance Corp	X	
Banco de Sabadell	X	Χ	KEB Hana Bank		Χ
Banco Santander	X	Χ			
Bankinter	X	Χ			
CaixaBank	X				
Caja Rural de Navarra	X	Χ			
Cajamar Caja Rural SCC		X			
Deutsche Bank SA Espanola	X				
Eurocaja Rural	X				
Kutxabank	X				
Liberbank	Х				

Source: Market data, NORD/LB Markets Strategy & Floor Research, bold = changes compared with May 2023



Repayment structures in South Korea

Since the first EUR benchmark issued by Kookmin Bank, South Korea has been one of those jurisdictions in which covered bonds have various maturity structures. While the seven EUR benchmarks issued by KHFC do not include the option to extend maturity and are therefore hard bullet bonds, Kookmin Bank issued its first EUR benchmark in soft bullet format and now has three bonds outstanding. Following the market entry of KEB Hana Bank, there is another South Korean issuer with soft bullet bonds, meaning that the soft bullets in the iBoxx now total four issues.



Appendix Bloomberg ticker Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Country	Ticker	Issuer
Australia	ANZ	Australia & New Zealand Banking Group Ltd
Australia	BQDAU	Bank of Queensland Ltd
Australia	CBAAU	Commonwealth Bank of Australia
Australia	MQGAU	Macquarie Bank Ltd
Australia	NAB	National Australia Bank Ltd
Australia	WSTP	Westpac Banking Corp
Austria	BTV	Bank fuer Tirol und Vorarlberg AG
Austria	BSWUES	Bausparkasse Wuestenrot AG
Austria	BAWAG	BAWAG PSK Bank fuer Arbeit und Wirtschaft und Oesterreichische Postsparkasse AG
Austria	ERSTBK	Erste Group Bank AG
Austria	HYNOE	HYPO NOE Landesbank fuer Niederoesterreich und Wien AG
Austria	LANTIR	Hypo Tirol Bank AG
Austria	VORHYP	Hypo Vorarlberg Bank AG
Austria	KA	Kommunalkredit Austria AG
Austria	OBERBK	Oberbank AG
Austria	OBLB	Oberoesterreichische Landesbank AG
Austria	RBIAV	Raiffeisen Bank International AG
Austria	RFVORA	Raiffeisen Landesbank Vorarlberg mit Revisionsverband eGen
Austria	RFLBNI	Raiffeisenlandesbank Niederoesterreich-Wien AG
Austria	RFLBOB	Raiffeisenlandesbank Oberoesterreich AG
Austria	RFLBST	Raiffeisen-Landesbank Steiermark AG
Austria	RFLBTI	Raiffeisen-Landesbank Tirol AG
Austria	RFVBSA	Raiffeisenverband Salzburg eGen
Austria	BACA	UniCredit Bank Austria AG
Austria	VOWIBA	Volksbank Wien AG
Belgium	ARGSPA	Argenta Spaarbank NV
Belgium	CCBGBB	Belfius Bank SA
Belgium	FBAVP	BNP Paribas Fortis SA
Belgium	INGB	ING Belgium SA
Belgium	KBC	KBC Bank NV
Canada	BMO	Bank of Montreal
Canada	BNS	Bank of Nova Scotia/The
Canada	CM	Canadian Imperial Bank of Commerce
Canada	EQBCN	Equitable Bank
Canada	CCDJ	Federation des Caisses Desjardins du Quebec
Canada	HSBC	HSBC Bank Canada
Canada	NACN	National Bank of Canada
Canada	RY	Royal Bank of Canada
Canada	TD	Toronto-Dominion Bank/The
Czech Republic	KOMERC	Komercni Banka AS
Czech Republic	UNICZ	UniCredit Bank Czech Republic & Slovakia AS
Denmark	DANSKB	Danmarks Skibskredit A/S
Denmark	DANBNK	Danske Bank A/S
Denmark	JYKRE	Jyske Realkredit A/S
Estonia	LHVGRP	LHV Pank AS
Estonia	LUMINO	Luminor Bank AS/Estonia



Country	Ticker	Issuer
Finland	AKTIA	Aktia Bank Oyi
Finland	AABHFH	Alandsbanken Abp
Finland	DANBNK	Danske Mortgage Bank PLC
Finland	NDASS	Nordea Kiinnitysluottopankki Oyj
Finland	OMASST	Oma Saastopankki Oyj
Finland	OPBANK	OP Mortgage Bank
Finland	POPBGR	POP Asuntoluottopankki Oyj
Finland	SPMTBK	SP-Kiinnitysluottopankki Oyj
Finland	SUOHYP	Suomen Hypoteekkiyhdistys
France	CMARK	Arkea Home Loans SFH SA
France	CMARK	Arkea Public Sector SCF SA
France	CRLNCB	AXA Bank Europe SCF
France	AXASFH	AXA Home Loan SFH SA
France	BNPPCB	BNP Paribas Home Loan SFH SA
France	BPCECB	BPCE SFH SA
France	CRH	Caisse de Refinancement de l'Habitat SA
France	CAFFIL	Caisse Francaise de Financement Local
France	CFF	Cie de Financement Foncier SA
France	ACACB	Credit Agricole Home Loan SFH SA
France	ACASCF	Credit Agricole Public Sector SCF SA
France	CMCICB	Credit Mutuel Home Loan SFH SA
France	HSBC	HSBC SFH France SA
France	LBPSFH	La Banque Postale Home Loan SFH SA
France	MMBSCF	MMB SCF SACA
France	SOCSFH	Societe Generale SFH SA
Germany	AARB	Aareal Bank AG
Germany	BAUSCH BYLAN	Bausparkasse Schwaebisch Hall AG
Germany Germany	BHH	Bayerische Landesbank Berlin Hyp AG
Germany	CMZB	Commerzbank AG
Germany	DEKA	DekaBank Deutsche Girozentrale
Germany	DAA	Deutsche Apotheker-und Aerztebank eG
Germany	DB	Deutsche Bank AG
Germany	DKRED	Deutsche Kreditbank AG
Germany	PBBGR	Deutsche Pfandbriefbank AG
Germany	DZHYP	DZ HYP AG
Germany	НСОВ	Hamburg Commercial Bank AG
Germany	HASPA	Hamburger Sparkasse AG
Germany	INGDIB	ING-DiBa AG
Germany	KRSKOE	Kreissparkasse Koeln
Germany	LBBW	Landesbank Baden-Wuerttemberg
Germany	LBBER	Landesbank Berlin AG
Germany	HESLAN	Landesbank Hessen-Thueringen Girozentrale
Germany	SAARLB	Landesbank Saar
Germany	MUNHYP	Muenchener Hypothekenbank eG
Germany	KNFP	Natixis Pfandbriefbank AG
Germany	NDB	Norddeutsche Landesbank-Girozentrale
Germany	LBOLD	Oldenburgische Landesbank AG
Germany	SCBGER	Santander Consumer Bank AG
Germany	SSPHAN	Sparkasse Hannover
Germany	SPKKB	Sparkasse KoelnBonn
Germany	SKPPFO	Sparkasse Pforzheim Calw
Germany	SSPMUE	Stadtsparkasse Muenchen
Germany	HVB	UniCredit Bank AG
Germany	WUWGR	Wuestenrot Bausparkasse AG



Country	Ticker	Issuer
Iceland	ARION	Arion Banki HF
Iceland	ISLBAN	Islandsbanki HF
Iceland	LANBNN	Landsbankinn HF
Ireland	BKIR	Bank of Ireland Mortgage Bank
Italy	MONTE	Banca Monte dei Paschi di Siena SpA
Italy	BPOPAA	Banca Popolare dell'Alto Adige SpA
Italy	BAMIIM	Banco BPM SpA
Italy	BANDES	Banco di Desio e della Brianza SpA
Italy	BPEIM	BPER Banca
Italy	CARPP	Credit Agricole Italia SpA
Italy	CRDEM	Credito Emiliano SpA
Italy	ICCREA	Iccrea Banca SpA
Italy	ISPIM	Intesa Sanpaolo SpA
Italy	BACRED	Mediobanca Banca di Credito Finanziario SpA
Italy	UCGIM	UniCredit SpA
Japan	SUMIBK	Sumitomo Mitsui Banking Corp
Japan	SUMITR	Sumitomo Mitsui Trust Bank Ltd
Korea	KEBHNB	Hana Bank
Korea	CITNAT	Kookmin Bank
Korea	KHFC	Korea Housing Finance Corp
Luxembourg	NDB	NORD/LB Luxembourg SA Covered Bond Bank
Netherlands	ABNANV	ABN AMRO Bank NV
Netherlands	ACHMEA	Achmea Bank NV
Netherlands	AEGON	Aegon Bank NV
Netherlands	RABOBK	Cooperatieve Rabobank UA
Netherlands	DEVOBA	de Volksbank NV
Netherlands	INTNED	ING Bank NV
Netherlands	NNGRNV	Nationale-Nederlanden Bank NV/The Netherlands
Netherlands	NIBCAP	NIBC Bank NV
Netherlands	LANSNA	Van Lanschot Kempen NV
New Zealand	ANZNZ	ANZ New Zealand Int'l Ltd/London
New Zealand	ASBBNK	ASB Bank Ltd
New Zealand	BZLNZ	Bank of New Zealand
New Zealand	BZLNZ	BNZ International Funding Ltd/London
New Zealand	WSTPNZ	Westpac Securities NZ Ltd/London
Norway	DNBNO	DNB Boligkreditt AS
Norway	EIKBOL	Eika Boligkreditt AS
Norway	MOREBO	Moere Boligkreditt AS
Norway	SPABOL	SpareBank 1 Boligkreditt AS
Norway	SORBNO	Sparebanken Soer Boligkreditt AS
Norway Norway	SVEGNO SRBANK	Sparebanken Vest Boligkreditt AS SR-Boligkreditt AS
Poland	MBKHIP	mBank Hipoteczny SA
Poland	PKOBHB	PKO Bank Hipoteczny SA
Portugal	BPIPL	Banco BPI SA
Portugal	SANTAN	Banco Santander Totta SA
Portugal	MONTPI	Caixa Economica Montepio Geral Caixa Economica Bancaria SA
Singapore	DBSSP	DBS Bank Ltd
Singapore	OCBCSP	Oversea-Chinese Banking Corp Ltd
Singapore	UOBSP	United Overseas Bank Ltd
Slovakia	PKBSK	Prima Banka Slovensko AS
Slovakia	SLOSPO	Slovenska Sporitelna AS
Slovakia	TATSK	Tatra Banka as
Slovakia	VUBSK	Vseobecna Uverova Banka AS
	DD/I B Markets Strategy &	



Country	Ticker	Issuer
Spain	ABANCA	Abanca Corp Bancaria SA
Spain	BBVASM	Banco Bilbao Vizcaya Argentaria SA
Spain	SABSM	Banco de Sabadell SA
Spain	SANTAN	Banco Santander SA
Spain	BKTSM	Bankinter SA
Spain	CABKSM	CaixaBank SA
Spain	CRUNAV	Caja Rural de Navarra SCC
Spain	CAJAMA	Cajamar Caja Rural SCC
Spain	DB	Deutsche Bank SA Espanola
Spain	EUROCR	Eurocaja Rural SCC
Spain	CAZAR	Ibercaja Banco SA
Spain	KUTXAB	Kutxabank SA
Spain	UCAJLN	Liberbank SA
Sweden	LANSBK	Lansforsakringar Hypotek AB
Sweden	SEB	Skandinaviska Enskilda Banken AB
Sweden	SHBASS	Stadshypotek AB
Sweden	SBAB	Sveriges Sakerstallda Obligationer AB
Sweden	SWEDA	Swedbank Hypotek AB
Switzerland	CS	Credit Suisse Schweiz AG
United Kingdom	VMUKLN	Clydesdale Bank PLC
United Kingdom	COVBS	Coventry Building Society
United Kingdom	LEED	Leeds Building Society
United Kingdom	LLOYDS	Lloyds Bank PLC
United Kingdom	NWG	National Westminster Bank PLC
United Kingdom	NWIDE	Nationwide Building Society
United Kingdom	SANUK	Santander UK PLC
United Kingdom	SKIPTN	Skipton Building Society
United Kingdom	YBS	Yorkshire Building Society



Appendix

ESG covered bonds in benchmark format

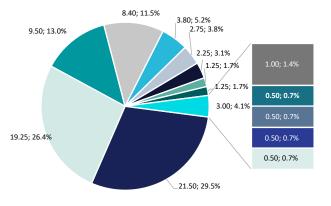
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

The market for ESG covered bonds

In our annual <u>ESG update</u>, we regularly discuss general developments in the ESG segment, focusing both on developments in the steadily growing ESG bond sub-market and on regulatory developments. In our <u>weekly publication</u>, we also regularly focus on the ESG market for covered bonds with an assessment of the specific situation of the issuers in our coverage. In the following, we focus on the developments in the ESG covered bond sub-market of the EUR benchmark segment. The latest addition in terms of jurisdiction level is the Czech Republic through the green covered bond placed by UniCredit Bank Czech Republic and Slovakia. On 12 June 2023, this issuer placed a green covered bond in EUR benchmark format (EUR 500m). In the following, we will present the supply side for covered bonds in sustainable formats, looking at recent developments as well as venturing a brief outlook for the future.

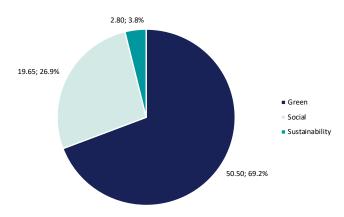
ESG covered bonds by country (EUR BMK; in EUR bn)

ESG covered bonds by type (EUR BMK; in EUR bn)









EUR benchmarks in ESG format: Green continues to dominate...

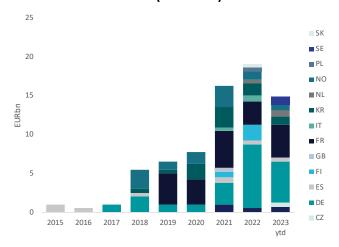
The total outstanding volume of EUR benchmarks amounts to around EUR 1,036.3bn, of which EUR 73.0bn is attributable to covered bonds in ESG format. Here, issues declared as "Green" continue to dominate (EUR 50.5bn or 69.2%). The remaining volume is divided between "Social" (EUR 19.7bn or 26.9%) and "Sustainable" (EUR 2.8bn or 3.8%). The dominance of the green formats is hardly surprising given the asset class and the focus on cover assets (residential or commercial real estate financing).



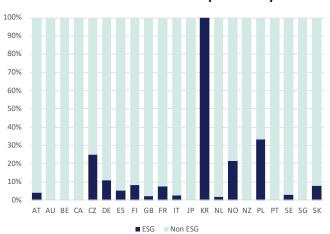
...and Germany is the largest provider of ESG covered bonds

At country level, the outstanding covered bonds in ESG format (a total of 102 outstanding bonds) are mainly distributed among the market leaders Germany (EUR 21.5bn; 35 bonds) and France (EUR 19.3bn; 19 bonds). The 14 jurisdictions now active in the EUR benchmark segment include Norway (EUR 9.5bn; 12 bonds) and South Korea (EUR 8.4bn; 14 bonds). In the case of South Korean issuers, it is important to note that the market has an extremely high weighting of ESG issues, mainly due to the public mandate of the Korea Housing Finance Corporation (KHFC, all in social format). Currently, there are only ESG covered bonds in the EUR benchmark segment in South Korea.

ESG covered bond issues (EUR BMK)



ESG covered bonds: market share (EUR BMK)



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

Market developments over the past few months

Looking back at previous years, 2022 was a record year so far in terms of ESG new issues. After all, a volume of EUR 19.1bn was placed (Green: EUR 15.8bn; Social: EUR 2.9bn; Sustainability: EUR 0.5bn). This exceeded the figure from 2021 (EUR 16.3bn). The year 2022 was also a record year in terms of the number of individual issues. A total of 28 deals were placed in the ESG format (after 21 in 2021 and ten in 2020). In 2023, the volume placed so far adds up to EUR 14.9bn - divided between Green (EUR 9.8bn) and Social (EUR 5.1bn). The number of issues so far is 22 ESG covered bonds. In our discussions with investors, we notice that more and more accounts are following an ESG mandate as a sub-goal and are also looking for investment opportunities in the covered bond segment. For example, portfolio managers are given concrete guidelines with regard to the share of the ESG portfolio in the entire book. In our view, the relative growth of the ESG market for covered bonds also plays a significant role here. In 2022, a total of EUR 198.6bn was placed in the EUR benchmark segment, meaning that the aforementioned value of EUR 19.1bn accounts for a share of 9.6%. In 2021, the calculated share was still 17.0%, whereas in the current year 2023 it is 10.4%. We see an ESG share of just over 10% for 2023 as realistic, but would assume a steadily growing share for the coming years, whereby ESG regulation (and here especially with regard to green bonds) could become a temporary braking factor.



ESG covered bonds in benchmark format: 40 active issuers

There are now 40 active ESG issuers. The most recent addition at the jurisdictional level before the Czech Republic was Sweden. Stadshypotek approached investors in March 2023 with a covered bond in green format (EUR 1.0bn). Since November 2022, we have also welcomed debutants from Finland and France.

Issuers of EUR benchmarks in ESG format

Issuer	Country	ESG Type	Volume (in EURbn)	No. of ESG BMKs	Framework based on ICMA principles
BAWAG PSK	AT	green	0.50	1	YES (<u>Link; Link</u>)
Hypo Tirol Bank	AT	social	0.50	1	YES (<u>Link</u>)
UniCredit Bank Austria	AT	green	1.25	2	YES (<u>Link</u>)
UniCredit Bank CZ & SK	CZ	green	0.50	1	YES (<u>Link</u>)
BayernLB	DE	green	1.00	2	YES (<u>Link</u>)
Berlin Hyp	DE	green	5.25	9	YES (<u>Link</u>)
вениттур	DL	social	1.75	3	TES (<u>LITIK</u>)
Deutsche Kreditbank	DE	social	2.25	4	YES (<u>Link</u>)
DZ HYP	DE	green	2.50	4	YES (<u>Link</u>)
ING-DiBa	DE	green	2.25	2	YES (<u>Link</u>)
LBBW	DE	green	1.50	2	YES (<u>Link</u>)
Münchener Hyp	DE	green	2.00	3	YES (<u>Link</u>)
NORD/LB	DE	green	2.00	4	YES (<u>Link</u>)
UniCredit Bank	DE	green	1.00	2	YES (<u>Link</u>)
Caia Bural de Navarra	ES	green	1.00	2	VEC (Link)
Caja Rural de Navarra	E3	sustainable	1.10	2	YES (<u>Link</u>)
Eurocaja Rural	ES	sustainable	0.70	1	YES (<u>Link</u>)
Kutxabank	ES	social	1.00	1	YES (<u>Link</u>)
OP Mortgage Bank	FI	green	1.75	2	YES (<u>Link</u>)
Nordea Kiinnitysluottopankki	FI	green	1.00	1	YES (<u>Link</u>)
Yorkshire Building Society	GB	social	0.50	1	YES (<u>Link</u>)
Arkea Home Loans SFH	FR	green	1.00	1	YES (<u>Link</u>)
BPCE SFH	FR	green	4.50	4	YES (<u>Link</u>)
CAFFII	ED	green	1.50	2	VEC (1:-1)
CAFFIL	FR	social	3.25	4	YES (<u>Link</u>)
Condit Applicate Harris Lang CELL	ED	green	1.25	1	VEC (1:-1)
Credit Agricole Home Loan SFH	FR	social	2.25	2	YES (<u>Link</u>)
La Danavia Dastala Harra Laga CEH	ED	green	0.75	1	VEC (L:=L)
La Banque Postale Home Loan SFH	FR	social	1.25	1	YES (<u>Link</u>)
Societe Generale SFH	FR	green	3.50	3	YES (<u>Link</u>)
Banco BPM SpA	IT	green	0.75	1	YES (<u>Link</u>)
Credit Agricole Italia SpA	IT	green	0.50	1	YES (<u>Link</u>)
Hana Bank	KR	social	1.10	2	YES (<u>Link</u>)
Kaakmin Dank	VD.	green	0.50	1	VEC (Link)
Kookmin Bank	KR	sustainable	1.00	2	YES (<u>Link</u>)
Korea Housing Finance Corp	KR	social	5.80	9	YES (<u>Link</u>)
NN Bank	NL	green	1.25	2	YES (<u>Link</u>)
DNB Boligkreditt	NO	green	3.00	2	YES (<u>Link</u>)
Eika Boligkreditt	NO	green	1.00	2	YES (<u>Link</u>)
SpareBank 1 Boligkreditt	NO	green	2.75	3	YES (<u>Link</u>)
Sparebanken Soer Boligkreditt	NO	green	1.00	2	YES (Link)
Sparebanken Vest Boligkreditt	NO	green	1.25	2	YES (Link)
SR-Boligkreditt	NO	green	0.50	1	YES (Link)
PKO Bank Hipoteczny	PL	green	0.50	1	YES (Link)
Stadshypotek	SE	green	1.00	1	YES (<u>Link</u>)
Slovenska Sporitelna	SK	green	0.50	1	YES (<u>Link</u>)
•					\ <u></u> ,

Source: Marktdaten, Emittenten, NORD/LB Markets Strategy & Floor Research



What comes next - reporting requirements becoming a burden...

In our view, the steady growth in the number of jurisdictions with active issuers alone, as well as the growing group of institutions within the issuing countries with sustainable frameworks for placing not only covered bonds, is a clear indication that there will be an increasing volume of EUR benchmarks in ESG format. We continue to assume a relative dominance of green issues, although the environment remains quite challenging. In this context, the focus is on the EU Green Bond Standard and the related EU taxonomy. At the same time, however, it is important to consider how investors approach the ESG issue with regard to the investment side. Here, we are not initially thinking of a fundamentally increasing demand with regard to the acquisition of sustainable assets. Rather, the question arises as to the extent to which regulatory requirements could also influence the demand side. Specifically, the EU Disclosure Regulation for Financial Market Participants and Financial Advisors (see EU Sustainable Finance Disclosure Regulation [SFDR]) comes to mind here. We certainly see the potential in these and other initiatives for the dynamically changing requirements to become an increasing burden for issuers and investors, even though we are fundamentally in favour of a high degree of transparency in the ESG environment as well. Nevertheless, increasing reporting obligations are accompanied by rising transaction costs, which can be attributed, among other things, to existing scope for interpretation and difficulties in drawing distinctions. For example, some requirements refer to a broader concept of sustainability, whereas the EU taxonomy (so far) only covers "green" financial investments.

...but the ESG market also remains on a growth path for covered bonds

Irrespective of this, we remain convinced that the covered bond asset class can be seen as an essential natural "partner" in the sub-segment of green covered bonds as well as social issues. Ultimately, the combination of a sustainable investment with high security standards that are based on national legislation provides an investment alternative for a large number of investors with ESG requirements. In 2023, the supply side should continue to grow dynamically. We expect a total of EUR 193.5bn in fresh EUR benchmarks. Assuming a share of 10%, this should result in EUR 19-20bn in new ESG bonds across 2023 as a whole. ESG covered bonds have become a permanent fixture for the EUR benchmark segment.



Appendix

The rating approach of Fitch

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Issuer rating as starting point

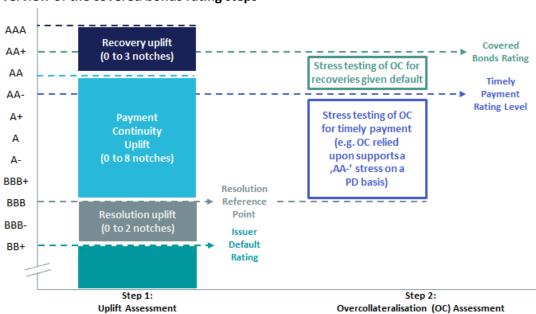
Fitch uses a two-step process to determine its covered bond ratings, taking into account both the probability of a default on a bond as well as the recovery given default. The first step involves assessing the resolution uplift of up to two notches above the Long-Term Issuer Default Rating (IDR). A resolution uplift may be granted to Covered Bonds originated from a jurisdiction that has, among other things, an advanced bank resolution mechanism that provides for a bail-in of senior bonds and excludes fully collateralised Covered Bonds from this. Moreover, an uplift is only awarded when the risk of a coverage deficit in relation to outstanding liabilities is minimal at the time a resolution threat exists. From the rating agency's perspective, this is then expected when, for example, a legal framework or contractual provisions, a responsible supervisory authority and an asset monitor are all in place. If all criteria are met, Fitch will award a resolution uplift above the IDR of a maximum of two notches. This expresses the preferred status of a covered bond in comparison with unsecured bonds in the case of a liquidation and creditor participation. The conditions for a resolution uplift can be seen in the table below, as well as those conditions that do not involve such uplift.

Fitch: Level of Resolution Uplift

	Issuer Characteristics	Notches
•	No support: Institutions with an IDR not driven by institutional or state support and their subsidiaries whose IDR is equalised with their parent's Support schemes: institutions with an IDR based on their participation/integration in a mutual support scheme and equalised with group IDR Temporary support: institutions and their subsidiaries with an IDR driven by support, when support is	2
	deemed to be temporary	
•	Support: Institution with an IDR driven by support and their subsidiaries.	1
•	Specialised mortgage or public-sector lenders that form part of a broader banking group and are not operationally integrated with the parent	0
•	Institution without debt buffers requirement such as Minimum Requirement for Own Funds and Liabilities and for which Fitch does not expect resolution to be applied in case of a failure or default	0

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





Overview of the covered bonds rating steps

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

Determining the Payment Continuity Uplift (PCU)

Fitch additionally determines the Payment Continuity Uplift (PCU). The PCU reflects the rating agency's assessment as to how likely a delay or interruption to interest and capital payments is to occur during transfer of the payment flow from the issuer to the cover pool (following issuer insolvency). The PCU can range from zero to eight notches and together with the resolution uplift and the IDR reflects the maximum possible covered bond rating on timely payment basis. The following applies: The higher the PCU, the less likely the disturbance of the cash flow is considered. Where Fitch assumes that an interruption to payment due to a lack of liquidity mechanisms is likely, the assessed covered bond programme receives a PCU of zero notches, whereas programmes with a soft-bullet structure (and 12 month extension) could be granted a PCU of up to six notches (above the IDR adjusted by the resolution uplift) as long as they are backed by standard cover pool assets in developed banking markets. Issues with a pass-through structure receive a PCU of up to eight notches. In line with the methodology presented on the following page, German Pfandbriefe benefit from a PCU of six notches reflecting the 180 day liquidity buffer and 12-months principal maturity extension feature. Other risks, e.g. resulting from insufficient separation of assets or high risks related to alternative cover pool management, can lead to a reduction in the PCU uplifts.

Recovery uplift – additional uplift of up to two or three notches possible

As covered bonds offer a recovery given default even in the event of a payment default on account of the associated assets, the respective programmes may receive a further uplift over the timely payment rating level of up to two notches based on the recovery prospects; for covered bonds with a non-investment grade timely payment rating, this can be up to three notches. The maximum number of notches is awarded when the programme's relied upon overcollateralisation ratio sufficiently covers the credit risk in the relevant rating scenario and in the absence of additional material downside risk to recoveries. The uplift can be limited if, for example, the bulk of the cover assets are denominated in a currency which differs from the covered bond issued.



Level of Payment Continuity Uplift

Maximum PCU in Notches	Effective Liquidity Protection for Principal Payments	Programme Types
8	Maturity date extends beyond the longest maturing asset in the cover pool	Pass-through programmes
6	At least 12 months	Mortgage and public-sector programmes
O	At least 12 months	predominantly exposed to developed banking markets
5	At least 6 months	Public-sector programmes
5	At least 0 months	predominantly exposed to developed banking markets
4	At least 9 months	Mortgage programmes
4	At least 5 months	predominantly exposed to developed banking markets
2	At least 6 months	Mortgage programmes
3	At least 6 months	predominantly exposed to developed banking markets
0	No protection	Any programme exposed to maturity mismatches

Source: Fitch Ratings, NORD/LB Markets Strategy & Floor Research

Limit to the maximum covered bond rating via break-even OC for the rating

Finally, in a second step, the overcollateralisation ratio for the respective rating level (break-even OC) is determined. This ensures timely payment of outstanding covered bonds during stress scenarios at the timely payment rating level above the IDR adjusted by the resolution uplift (i.e. issuer default) and also meets the threshold for the applied recovery uplift. The break-even OC reflects the amount of assets needed in excess of covered bonds issued, it is composed of (i) the ALM loss (non-credit loss) and (ii) the credit loss. The break-even OC calculated by Fitch for a given rating is then compared with the OC expected to be maintained over the long term by the issuers from the perspective of the rating agency. If the OC maintained by the issuer is below the break-even OC for the maximum possible rating, Fitch tests the next-lowest rating scenario. Usually the covered bond rating is floored at the IDR plus available notches of resolution uplift and at least one notch of recovery uplift.



Appendix The rating approach of Moody's

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Rating approach comprises multi-stage process

The <u>Moody's rating approach</u> comprises a multi-stage process which takes account of the regulatory preferential treatment of covered bonds in the context of the Bank Recovery and Resolution Directive (BRRD). This refers to the Counterparty Risk Assessment (CR Assessment), which takes into consideration the fact that banks in jurisdictions with resolution regimes (e.g. BRRD) maintain operational functions, even in the event of a default, and are able to meet further payment obligations under specific instruments, even though deposits and senior unsecured liabilities are experiencing losses (key word here: bail-in). The CR Assessment therefore describes the default probability of instruments for which a bail-in is less likely, such as covered bonds or certain derivatives. The CR Assessment can consequently end up higher than the SUR or deposit rating.

CR Assessment usually higher than senior unsecured or deposit rating

The CR Assessment level depends on the extent to which bail-in-able debt instruments are available and provide protection to other instruments against losses. The existence and structure of the applicable insolvency or resolution directives therefore play a key role. Potential support from the state or regulator is also taken into consideration.

Additional notch uplift for the EU, Norway and Switzerland

As covered bonds are fundamentally preferred instruments whose probability of default in the event of winding-up is lower than that of unsecured instruments, Moody's now typically uses the CR Assessment as the anchor point for determining the covered bond rating. For EU member states, the UK and Norway, the anchor point for legally based covered bonds can also be an additional notch higher than the CR Assessment, since in the case of an emergency the agency considers the intervention of state or the regulator to maintain the covered bond market to be likely given its long history and other characteristics. In the case of Switzerland, the anchor point can also be more than one notch higher than the CRA.

Assessing the creditworthiness of the issuer and value of the cover pool

Moody's therefore looks at both the creditworthiness of the issuer in the context of the covered bond anchor point as well as the value of the cover pool following the institution's default. To do this, the issuer's probability of default is derived from the CR Assessment and linked with the losses expected from the cover pool in the event of the issuer's insolvency. Here Moody's uses the payment streams from the cover assets (taking account of credit and market risks) available to repay the outstanding covered bonds. The future payment flows are determined for a variety of scenarios and the loss to the investor calculated for each scenario. The losses in the individual scenarios are weighted according to probability and added together to give the expected loss.



TPI as limiting factor

However, the rating corresponding with this expected loss can be limited by what is known as the Timely Payment Indicator (TPI) framework. The TPI shows the expected probability of the timely servicing of covered bondholders in the event of non-payment by the issuer. The TPI has six levels ranging from "very improbable" to "very high". The more positive the TPI, the greater the possible gap between the covered bond anchor point and covered bond rating. The TPI of a covered bond programme is affected by a series of factors. These include qualitative aspects of the cover assets and the covered bond programme, as well as the legal basis and contractual structure of the programme. Additional aspects considered include the quality of regulation in a country, the state's creditworthiness as well as the maturity and depth of a market. Together with the covered bond anchor point, the TPI determines the maximum rating achievable for the respective covered bond.

Decoupling from TPI possible

In its methodology, Moody's also outlines the circumstances under which the covered bond rating can be decoupled from the TPI approach and therefore no longer be constrained by this indicator. The rating agency cites two reasons in particular for applying the TPI Framework; on the one hand, the refinancing risk that can result from a hard or soft bullet structure, and on the other, the risks that can arise for the cover pool from the functions of the issuer. One way to limit the refinancing risks would be to use pass-through or conditional pass-through structures.

Moody's identifies various types of risk

When calculating the expected losses in the cover pool following issuer insolvency, Moody's identifies various types of risk. Here the rating agency uses the collateral score as a yardstick for the credit quality in the cover pool. This indicator shows the loss as a percentage that would be expected following issuer insolvency as a result of credit defaults in the cover pool. The lower the collateral score, the higher the credit quality of the cover pool. Moody's assesses the credit risks using separate models for the individual collateral types such as own home finance or public sector finance. Depending on the issuer rating and covered bond rating, haircuts of up to 50% are applied to the credit risks, thereby producing the collateral risk. One of the main reasons for applying this haircut is the support expected for the programme from the issuer.

Refinancing risk from differences in maturity profile

According to Moody's, a refinancing risk arises when there are differences in the maturity profiles of cover assets and covered bonds. To ensure creditors are paid in a timely manner, in some circumstances additional liquidity must be generated alongside the payment flows from the cover assets. This liquidity can come from the disposal of assets or interim financing. Depending on the refinancing margins involved, losses can arise that adversely affect the cover pool. The refinancing risk is modelled on the basis of three factors: (i) the portion of cover assets for which interim financing is required as a result of mismatched maturities; (ii) the average term of the refinancing requirement and (iii) the margin assumed. Other risks to be considered are interest rate and currency risks which result from mismatches between the assets in the cover pool and the outstanding covered bonds.



Interest rate and currency risks produce market risk

To determine the interest rate and currency risks in the wake of issuer insolvency, Moody's uses standardised assumptions on the volatility of the interest rates and exchange rates. The refinancing risk along with the interest rate and currency risks together produce the market risk. Adding the market risks and the collateral risk together produces the cover pool losses as the sum of all risk components. In Moody's approach, the cover pool losses together with the overcollateralisation level (OC) and issuer's probability of default (probability of anchor event) give the expected loss. The expected loss ultimately determines the covered bond rating. For existing ratings, the lowest OC at which the respective target rating is still achieved is calculated for the respective covered bonds as part of the monitoring process. The final outcome of the rating analysis is the lower of the results produced by the expected loss analysis and TPI analysis.



Appendix

The rating approach of S&P

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

The ratings approach of S&P

This article in our weekly publication provides a schematic presentation of the rating approach used by Standard & Poor's (S&P) to rate covered bonds. Together with DBRS, Fitch and Moody's, S&P is one of the four "External Credit Assessment Institutions" (ECAI) listed in the "Eurosystem Credit Assessment Framework" (ECAF).

Four-stage process

S&P's rating process will be split into four phases:

- i) Analysis of issuer-specific factors (e.g. legislative, regulatory, operational and administrative risks) → can the covered bond rating be higher than the issuer credit rating (Issuer Credit Rating, ICR)?
- ii) Establishing the RRL (Reference Rating Level) based on the applicable resolution mechanisms → bail-in yes/no?
- iii) Calculation of maximum possible rating based on the jurisdiction and cover pool → external probability of support (ex. state, central bank)? Quality of cover pool (expected loss, overcollateralisation, liquidity)?
- i) Combination of results and influence of additional factors (e.g. counterparty and country risk) → final rating?

ICR forms rating floor

The issuer's credit worthiness remains an essential factor in the analysis since the respective institution is both the primary source for payments to the covered bond creditors and also manager of the cover pool, and can therefore have a significant influence on ALMM risks, credit quality and overcollateralisation. The issuer rating is therefore seen as the floor for the covered bond rating. On this basis, S&P first calculates whether an uplift above the ICR can be awarded in principle. Among other things, this requires legislative or contractual arrangements which guarantee the separation of the cover assets to the benefit of the covered bond holders.

Resolution mechanisms define RRL

If an uplift is fundamentally possible, the next step involves setting the RRL. To this end, the agency checks whether the Bank Recovery and Resolution Directive (BRRD) or similar legislation is applicable, allowing the issuer to continue to make payments to covered bond holders, even though senior unsecured paper has defaulted. In such cases, the RRL is defined as the greater of:

- i) the issuing bank's ICR, plus up to two notches for programs in jurisdictions with effective resolution regimes that exempt covered bonds from bail-in
- ii) the RCR on the issuing bank, where applicable.

In jurisdictions where there is no corresponding resolution mechanism, the RRL equals the ICR.



Likelihood of external support

The next step will involve assessing the probability of public support in the respective jurisdiction, which aims to avoid the liquidation of cover assets in an extreme case. Such support can come from the government, from the central bank or from indirect intervention. The probability of support shall be assessed by evaluating: i) the covered bond legislation, ii) the systemic importance of the covered bonds in their market and iii) the credit worthiness of the state with marks ranging from "weak" to "very strong", whereby the overall score is based on the weakest individual assessment of the three criteria. Subsequently, an uplift of 0 to 3 notches over the RRL can be assigned, which defines the jurisdiction-supported rating level (JRL).

Cover pool factors

Based on the JRL, a further notching is then undertaken which takes into account overcollateralisation in the cover pool and analyses the extent to which it covers credit risks and refinancing costs. This factors in not only the level of overcollateralisation, but also liquidity conditions. There can be an uplift of up to four notches for assets with an active secondary market. Where a sufficiently active secondary market for the cover pool assets does not exist to enable the covered bond program to raise funds against its assets the maximum uplift is two notches.

Deduction of notches for liquidity risks and voluntary overcollateralisation

The form of commitment to maintaining overcollateralisation plays an important role. Overcollateralisation which is maintained purely voluntarily attracts a basic deduction of one notch. A public statement also leads to a deduction by one notch if the support in the jurisdiction in question is merely rated as "weak". In the case of a legal and contractual commitment, there is generally no deduction. A further deduction of one notch can be applied if there is no committed liquidity coverage of at least six months. Such a coverage can consist of liquidity lines or structural measures (e.g. soft bullet or CPT). The adjustment does not apply when a covered bond rating exceeds the foreign currency rating on the sovereign of the covered bond issuer in a member country of the European Economic and Monetary Union (EMU or eurozone)since the liquidity risk is taken into account in the cap above the country rating.

Consideration of other factors

The last step combines the previous results and further factors are taken into account in order to determine the final covered bond rating. These mainly include counterparty and country risks. As regards the country risk (for programmes with assets from just one jurisdiction), unlike in the case of other agencies, there is no general country ceiling; instead a notching above the foreign currency rating of the respective state is carried out, which is dependent on the sensitivity of the cover assets to the sovereign default. If this risk is rated as "high", then a maximum uplift of two notches is possible. If the risk is rated as "moderate", then the maximum uplift is four notches, while "Low" can be up to six notches, if additional criteria are met (e.g. there cannot be any refinance risk). Covered bonds with a refinancing risk arising from sovereign default risks which cannot be fully mitigated are subject to a specific restriction. In this case, the maximum uplift which can be assigned is five notches, whereby a further distinction is made between issuers from inside and outside a monetary union.



Total uplift of up to 9 notches possible

Overall therefore, the new S&P methodology allows a maximum uplift of seven notches above the RRL starting point. In order to achieve this, the four criteria must be met as a minimum:

- i) systemic support must be rated as "very strong"
- ii) overcollateralisation must completely cover credit risks in the AAA scenario and all refinancing risks
- iii) 180 days liquidity need must be covered (could also be by ex.maturity extensions)
- iv) overcollateralisation will be contractually or legally assured or there will be a public assurance

In addition, the rating may not be limited by other factors such as country or counterparty risks.

Total uplift of up to 9 notches possible

Overall therefore, the new S&P methodology allows a maximum uplift of seven notches above the RRL starting point. In order to achieve this, the four criteria must be met as a minimum:

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- vi) overcollateralisation must completely cover credit risks in the AAA scenario and all refinancing risks
- vii) 180 days liquidity need must be covered (could also be by ex.maturity extensions)
- viii) overcollateralisation will be contractually or legally assured or there will be a public assurance

In addition, the rating may not be limited by other factors such as country or counterparty risks.

Notching above starting point

	Factor	No. of notches
	Reference rating level	0 – 2
+	Jurisdictional support	0-3
+	Credit enhancement	1-4
_	Type of commitment	0-1
_	Liquidity scheme	0-1
=	Maximum CB rating	

Source: Standard & Poor's; NORD/LB Fixed Income & Macro Research

De-linking only without ALMM risk

Contrary to the prescribed method, a covered bond rating can be completely decoupled from the RRL, so that it can be calculated without a maximum rating uplift. However, for this to happen, the covered bond programme must be protected structurally from an asset-liability mismatch (ALMM) and there must be a legal or contractual commitment to maintain overcollateralisation.

ESG Credit Indicator Report Card: Covered Bonds

The growing importance of ESG factors is also taken into account by the rating experts at S&P.In November 2020 S&P published its first "ESG Credit Indicator Report Card: Covered Bonds" and updated this in April 2022. S&P's ESG credit factors are intended to increase the level of transparency with regard to the relevance of ESG factors for the rated covered bond programmes. This applies in particular with regard to the influence on the credit rating analysis. Within the scope of the analysis presented, S&P stated an overall limited influence of ESG factors on the rating analysis of covered bonds. According to the agency, the "governance" factor has the greatest influence. In contrast, the influence of "environmental" factors is "very limited".



Appendix The rating approach of DBRS Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

DBRS rating approach for covered bonds

The purpose of this article is to provide a schematic description of the rating approach used by DBRS for the assessment of covered bonds. Together with S&P, Fitch and Moody's, DBRS is one of the four "External Credit Assessment Institutions" (ECAI) listed in the "Eurosystem Credit Assessment Framework" (ECAF).

Covered bond ratings: DBRS working with four components

The <u>DBRS approach</u> comprises four components. Firstly, DBRS looks at the Reference Entity (RE). Accordingly, the Covered Bond Attachment Point (CBAP) is derived from the critical obligations rating (COR) or from the Reference Entity's Long-Term Senior Debt Rating (RE-LTSDR) of the RE (Or the Long-Term Issuer rating if DBRS does not assign a Long-Term Senior Debt rating to the RE). In the context of the second component, DBRS assesses the programme-specific legal and structuring framework (LSF). As a result of this component, DBRS derives a scaling for the framework which is valid for the cover pool (CP) with the assessment of Very Strong, Strong, Adequate, Average and Modest. Based on the CBAP, as an anchor point for the rating level and the assessment of the LSF, the quality of the cover pool will be assessed in order to calculate the likelihood that the covered bonds issued under the programme will be repaid in accordance with the bond terms and conditions. The result of this assessment provides the LSF-Likelihood, which in turn should be seen as an intermediary step upon which the fourth component builds. This is the recovery analysis in which DBRS runs a wind-down cash flow simulation to determine the share of principal payments received.

Component one: Covered Bond Attachment Point takes into account three regimes

The CBAP specifies the RE's credit strength. The RE's Long-Term Rating (of COR, Senior Unsecured or Issuer Rating) provides the basis and may be subject to adjustments. In this context, the RE basis and potential notch adjustments depend on the legal framework and systemic relevance. It is differentiated between three regimes: i) European programmes where the RE is subject to the Bank Recovery and Resolution Directive (BRRD); ii) programmes where the RE is subject to a "BRRD-equivalent" regime; iii) programmes where the RE is neither subject to the BRRD nor subject to "BRRD-equivalent" regime. In the case of i), REs that have been assigned a COR are assessed. The COR reflects the default risk of obligations which are more likely to be exempt from bail-ins and which, in the event of the resolution of the bank, would be more likely to remain in that bank than other senior unsecured obligations. If the RE has a COR assigned: if DBRS considers CB to be either of high importance for the domestic market or of high strategic importance for the RE in terms of the funding of its activities, the CBAP is equated with the COR. Otherwise, the CBAP is set one notch below the COR, but floored at the RE-LTSDR.



Reference to the importance of covered bonds for the domestic market

If no COR exists, the CBAP is set equal to the RE-LTSDR plus a notch if CBs are highly relevant for the domestic market and/or issuer. Otherwise, the CBAP is equal to the RE-LTSDR. For ii), a distinction is made between RE that are systemically relevant and those to which this does not apply. For the former, DBRS sets the CBAP up to two notches above the RE-LTSDR, provided that covered bonds are considered important for the home market or the program is strategic for the RE. Otherwise, DBRS sets the CBAP up to one notch above the the RE-LTSDR.

No systemic relevance, but high importance for the domestic market

If the RE is not deemed to be systemically important, but the covered bonds are highly important for the domestic market, then the CBAP can also be set at up to one notch above the RE-LTSDR. In other cases, the CBAP is equated with the RE-LTSDR. In the case of iii), the CBAP is equalised with the RE-LTSDR for REs which are not subject to a BRRD or a BRRD-equivalent regime.

Components two and three

With component two, DBRS is aiming to classify the Legal and Structuring Framework (LSF) that is relevant for the covered bond. The evaluation limits the number of possible uplifts based on the CBAP and is based on an analysis of i) the robustness of the segregation of the cover pool; ii) accessibility of cover pool cash flows on a preferential and timely basis, as well as the need and ability to liquidate the cover pool, including the likelihood of systemic support, and iii) contingency plans, including the possible involvement and responsibility of regulatory authorities or the relevant central bank to facilitate the transfer of the cover pool and support from the regulatory authorities for the covered bond market. As a result of the analysis, DBRS specifies the LSF Assessment, which can be rated Very Strong, Strong, Adequate, Average or Modest. The second component also includes the LSF-Likelihood (LSF-L), which denotes the likelihood that covered bond investors will be repaid in accordance with the bond conditions. Component three, the CP Credit Assessment, incorporates the assessment of the quality of the CP in order of whether it can meet the timely payment of interest and principal. DBRS includes exemptions where the assessment is not necessary: i) DBRS does not have a methodology applicable to the CP or ii) the LSF-L equals the CBAP and no rating uplift over the LSF-L is possible because of low recovery prospects. In these specific cases, the covered bond rating, therefore, equals the CBAP. Furthermore, component three is fundamentally regarded as the rating stress scenario which the structure is able to withstand given the overcollateralisation (OC) to which DBRSM gives credit.

Combination of CBAP, LSF and Cover Pool Credit Assessment

The LSF-L reflects the likelihood that covered bond investors will receive payments in line with the bond terms and conditions. An assessment of the default probability of a covered bond is an integral part of DBRS's risk assessment. In principle, in view of dual recourse, a default only occurs when both the issuer and cover pool have defaulted. DBRS's methodology also works on the assumption of positive linear default correlation between the issuer and the cover pool. This means that a default correlation coefficient of $\rho>0$ is assumed. In addition to the correlation coefficient, the results of the first three components of the ratings approach are also factored into the calculation.



Probability of default of RE and cover pool

In this context, DBRS outlines the RE default probability by way of the CBAP, whereas the default probability of the cover pool is reflected by the Cover Pool Credit Assessment. The LSF assessment is also factored into the calculation through parameter α , whereby the five potential matrices are each assigned a value which corresponds to the probability that investors will not have the full benefit of the cover pool or that the proceeds of the cover pool will not be disbursed rapidly enough in order to avert a default of the bond.

Recovery prospects provided by the quality of the cover pool

In the fourth component, DBRS also indicates the possibility of granting a comprehensive rating uplift of up to two notches, provided that the analysis of the cover pool indicates that the cover pool would offer substantial support or high recovery rates following a default of the covered bond. The following is a tabular summary of the building blocks previously described.

DBRS Methodology Covered Bonds: The four components at a glance

Building block

Major components

- Designates the credit strength of the RE
- European covered bond programmes where RE is subject to the BRRD:
 - With critical obligations rating (COR); CBAP = [COR] or max([COR -1];[RE-LTSDR])
 - Without COR: LT senior debt rating RE; CBAP = [RE-LTSDR+1] or [RE-LTSDR]
- ١. Covered bond attachment

point (CBAP)

- Covered bond programs where the RE is subject to "BRRD-equivalent" regime:
 - RE systemically important: CBAP = [RE-LTSDR+ up to 2] or [RE-LTSDR+ up to 1]
 - RE not systemically important: CBAP = [RE-LTSDR+ up to 1] or [RE-LTSDR]
 - Canadian REs: CBAP = LT senior debt rating
- Covered bond programs where the RE is neither subject to the BRRD nor subject to "BRRDequivalent" regime: CBAP = [RE-LTSDR]
 - Canadian REs: CBAP = LT senior debt rating
- II. Legal and structuring framework (LSF) and

LSF-L

- Likelihood that payment obligations could be smoothly and efficiently transferred
- Review of dedicated covered bond legislation
- Prerequisite: covered bonds do not automatically default
- Ability and willingness of the regulator to support
- Likelihood that CB holders will be repaid according to the terms (LSF-L)
- Analysis of the terms of each CB programme and the structuring features
- Estimation of PD and LGD, analysis of stressed asset cash flows
- III. Cover Pool Credit Assessment
- Accounts for timing of RE discontinuing its payments
- Cover pools with public sector exposures may deserve a different type of analysis (high correlation between the PSEs and the sovereign in which the cover assets are concentrated)
- Where applicable, downscaling of OC by reference to the minimum observed OC during the past 12m
- IV. Recovery
- DBRS may give up to two notches uplift from the LSF-L
- **Prospects**
- Application of cash flow simulation aimed at covering the cost of funding under stress scenario



Appendix

The rating approach of Scope

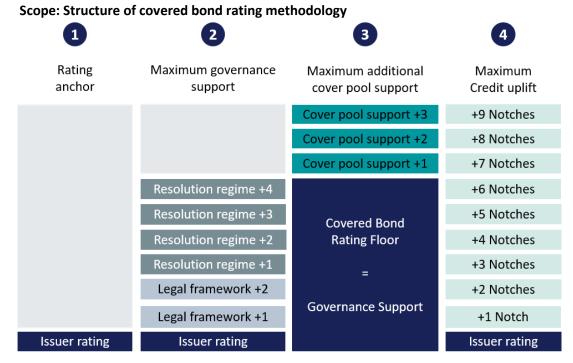
Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

Structure and logic of the Scope methodology

The Scope rating methodology takes into account the dual recourse character of covered bonds. Consequently, the analysis of the issuer and the derivation of the issuer rating provides the basis for the covered bond rating. Potential uplifts are derived using this anchor rating; these result from the legal framework for covered bonds applicable in each case and the resolution regime to be applied to banks and the extent of systemic support. In this context, maximum uplifts of four notches are possible based on the resolution regime, while the legal framework allows uplifts of up to two notches. In total, a rating of up to six notches above the issuer rating can be recorded from the "governance support". This potential for uplifts is a consequence of the high probability that the relevant regime will ensure that covered bonds are still serviced, or the programme continues even in the case of regulatory interventions affecting the issuer. As part of the analysis of the cover pool, recourse to the cover pool, which only takes place if necessary (i.e. upon default by the issuer), is rated. The "cover pool support" element is based on the rating, which is worked out from the combination of the issuer rating with the uplifts from the "governance support". Governance considerations may lead to adjustments in the potential cover pool-based uplift, reflected in the cover pool complexity (CPC) category. Furthermore, the cover pool support takes into account the considerations below. For example, Scope evaluates the risks as to whether the issuer is unable to comply with their payment obligations and whether the payment surpluses from the cover pool are insufficient. The expected loss (EL) associated with these risks is also inferred. Here, in line with the basic principle of dual recourse, the approach provides for the fact that losses are only expected in the event of both an issuer default and that the covered bond structure does not guarantee complete and timely repayment. In total, a covered bond rating with a maximum of nine notches above the issuer rating is possible, even with an uplift of more than nine notches in individual cases (such as some CPT structures).

Governance support: Analysis of the legal framework

The analysis of the legal framework for covered bonds, which can produce a maximum uplift of two notches, is based on the assessment of the ring fencing of the cover pool and the design of the SPV structure. Therefore, the evaluation of the legal framework includes ensuring that payments can be made at all times and that the cover pool is protected from insolvency. The analysis also looks at the question of whether and to what extent the permitted cover assets are high quality and how market and liquidity risks are dealt with adequately before and after the issuer's insolvency. In addition, the analysis of the legal framework also addresses issues such as sufficient overcollateralisation, how conflicts of interest are dealt with in the event of insolvency and independent supervision of the programmes in question, among other things.



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

Governance support: Assessment of the resolution regime

Improved regulatory conditions, which also include new resolution regimes, can in particular lead to a lower probability of default for covered bonds in a scenario of this kind. Among other things, this is attributable to the fact that banks and issuers can withstand a far higher stress level before investors may access the cover pool if need be. Scope derives the actual uplifts from the resolution regime and from specific factors linked to the preservation of the covered bonds credit quality in a resolution scenario. In addition to questions with regard to the possible prevention of an issuer default, Scope focuses on the systemic relevance of the issuer or of covered bonds in the domestic market here, among other things. As part of the methodological description of the analysis of the resolution regime, Scope also considers the case that there is no suitable resolution mechanism.

Cover pool support analysis: CobEL model

The analysis of the cover pool is based on the results from the governance support. Even though, as mentioned initially, an uplift of up to three notches in the covered bond rating floor (issuer rating + notch uplift from the governance support) is possible in the context of the cover pool support. The covered bond expected loss model (CobEL) is used to evaluate if the maximum cover pool uplift is possible. In addition, the rating uplift can be constrained as outlined further below. It is divided into four elements, namely credit risk analysis, cash flow risk analysis, auxiliary credit considerations and sensitivity analysis. The credit risk analysis is based on identifying the relevant asset risks arising from the cover pool and is included in the cash flow risk analysis where the CobEL is used to stress the cash flows. The model takes into account both scenarios where the issuer remains in a position to service the covered bonds and the theoretical cases, where investors have to take recourse to the cover pool. The individual components of the assessments as part of the application of the CobEL model extend to both credit risk relevant aspects of the cover pool and the analysis of the risks of cash flows (such as refinancing risks, liquidity premiums, exchange and interest rate risks or reinvestment risks).



Available OC

Scope also provides for the assessment of the available overcollateralisation and securing the liquidity of the cover pool following a default by the issuer. In addition, the CobEL model incorporates auxiliary risk considerations and a sensitivity analysis, as both can constrain the potential rating uplift. As part of the auxiliary risk considerations, attention is also focused on counterparty risks by analysing possible negative consequences for covered bonds potentially arising from the credit quality of counterparties.

Cover pool support analysis: Cover pool complexity (CPC) category

Scope applies a cover pool complexity (CPC) category to rate the individual cover pool based on transparent criteria such as the availability of information on key risk drivers as well as on the interplay of the covered bond programmes complexity and transparency. The CPC category, therefore, reflects those factors and limits the potential cover pool-based uplift. For example, the CPC category Low equals the maximum uplift of three notches and the CPC category Highest indicates that no additional cover pool uplift is possible. No additional rating uplift is possible, when the available information is insufficient to perform a cover pool analysis. In the absence of necessary data for their full rating process, the covered bond rating can also be withdrawn.

Cover pool analysis now also includes ESG risks

In the course of the auxiliary risk considerations for the cover pool support analysis, Scope explains how ESG aspects (ESG = environmental, social and governance) could impact the quantitate cover pool analysis. In the case, an issuer can sufficiently support the assumption that environmental or social cover assets exhibit lower credit risk, these can be taken into account in the analysis (lower default probability because of a borrower's higher affordability of a mortgage, and or all things equal potential higher recovery proceeds as more energy efficient houses achieve higher sale proceeds). Similarly, if ESG assets can be robustly identified, they likely would receive lower haircuts upon a forced asset sale. However, empirical evidence of differences in credit risk or pricing differences between "traditional" and ESG assets or covered bonds is currently very scarce and often not sufficiently robust supported. For now ESG aspects have thus limited relevance for the rating analysis.

Country risks: no general sovereign limit

In its consideration of country risks, Scope ranks as one of the rating agencies that does not, in principle, restrict the covered bond rating to the sovereign limit. Nevertheless, Scope's methodology does provide for consideration of country-specific risk factors and in this context lists, among other things, the possible influence of transfer risks, convertibility risks and the risks of an institutional crisis on the covered bond rating.



Appendix

Rating scale mapping and rating modifiers

Authors: Melanie Kiene, CIIA // Dr. Frederik Kunze // Stefan Rahaus

		Long-ter	m Ratings		Credit	Credit	Credit
	Fitch	S&P	Moody's	DBRS	Quality Step gem. CRR ¹	Quality Step gem. EZB ²	Quality Step gem. Solvency II ³
	AAA	AAA	Aaa	AAA			CQS 0
	AA+	AA+	Aa1	AA (high)	CQS 1	CQS 1	
	AA	AA	Aa2	AA	CQ3 I	CQ3 I	CQS 1
	AA-	AA-	Aa3	AA (low)			
Investment	A+	A+	A1	A (high)			
Grade	Α	Α	A2	Α	CQS 2	CQS 2	CQS 2
	A-	A-	A3	A (low)			
	BBB+	BBB+	Baa1	BBB (high)			
	BBB	BBB	Baa2	BBB	CQS 3	CQS 3	CQS 3
	BBB-	BBB-	Baa3	BBB (low)			
	BB+	BB+	Ba1	BB (high)		CQS 4	
	ВВ	ВВ	Ba2	BB	CQS 4	CQS 5	CQS 4
	BB-	BB-	Ba3	BB (low)			
	B+	B+	B1	B (high)			
	B B B- B-	В	B2	В	CQS 5		CQS 5
			В3	B (low)			
Non-	CCC+	CCC+	Caa1	CCC (high)			
Investment	CCC	CCC	Caa2	CCC			
Grade	CCC-	CCC-	Caa3	CCC (low)			
Grade				CC (high)			
	CC	CC	Ca	CC	CQS 6		CQS 6
				CC (low)	243 0		cq3 0
				C (high)			
	C C	С					
		/-		C (low)			
	RD/D	SD/D		D			

Rating supplements

*	Review with direction uncertain	e	Expected rating
*+	Review for possible upgrade	WD	Withdrawn
*_	Review for possible downgrade	WR	Withdrawn
u	Unsolicited	NR	Not rated
(P)	Provisional / Preliminary		

¹ Article 136 Regulation (EU) No. 575/2013 (CRR), Regulation (EU) 2016/1799

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

² ECB Guideline (EU) 2015/510, Eurosystem Credit Assessment Framework

³ Article 109a Directive 2009/138/EC (Solvency II), Directive (EU) 2016/1800



Appendix Data base

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Data used for cover pool analysis and market overview

The key metrics reported in connection with the cover pools are based on information disclosed by the issuers themselves and the rating agencies, with the most recently available data at the time of preparing the Issuer Guide used in each case. As such, in some cases different reporting dates apply to the range of cover pools. Key metrics were either taken at face value or calculated on the basis of the reported information. In some cases, for example within the framework of the borrower types, there is a partially modified classification into individual categories. In turn, percentage data on regional allocation may in some cases refer to the most strongly represented country. Cover pool data in foreign currencies has been converted using exchange rates as at 30 June 2023 as reported by the European Central Bank. Aspects including "LCR eligible", "LCR level (Bmk/SBmk)" and "Risk weight" reflect the assessments made by us based on the available data. In terms of Committed OC, this can reflect contractual obligations, e.g. to a rating agency, or legal requirements. Data relating to the share of loans in arrears is based, where available, on arrears of three months (>90 days). The "Spread Development (>1y)" is also an aggregated calculation of the EUR benchmark deals (equal to or greater than EUR 500m) and/or EUR sub-benchmark deals (equal to or greater than EUR 250m, but less than EUR 500m) from the individual issuers taking into account the specific asset class, while the country aggregations include all collateral types in the EUR benchmark segment. The "Spread Development" is based on data as at 22 August 2023 and exclusively contains EUR benchmarks and EUR sub-benchmarks with a residual term to maturity of at least one year in each case. In the case of EUR benchmarks the universe is in accordance with the bonds in the iBoxx EUR covered as of "August 2023". Significant jumps in the spread trend can be attributed in particular to new issues or repayments. The "Redemption Profile" is based on historical data and can therefore contain bonds that are not included in the respective cover pool due to the issuance date. The "Market Overview Covered Bonds" presented at respective jurisdiction level is based on the key metrics recorded for the Issuer Guide relating to cover pools and outstanding EUR benchmarks. The charts and graphs exclusively depict EUR benchmarks and are based on Bloomberg ticker data.

Covered bond ratings

The ratings of the covered bond programmes were reviewed via Bloomberg shortly before publication, while other rating metrics have in certain instances been taken from regular reports published by the rating agencies. In such cases, these may refer to an earlier reference date and therefore potentially older ratings. The ratings presented as part of the Cover Pool Overview are to be understood as aggregated data. As such, it is imperative to check ratings at ISIN level, since the rating agencies rate ISINs and not individual programmes. ISINs issued under a given programme can therefore have different ratings, meaning that their regulatory treatment may also differ as a result.



Data used for the issuer profiles

The figures, data and information used are based on information provided by the issuers or groups included in this Issuer Guide, the data provider S&P Global Markets Intelligence, Bloomberg L.P., the national central banks or supervisory authorities, as well as the individual and sector analyses carried out by the rating agencies Moody's, Standard & Poor's and Fitch (where available). The tables containing financial data on the issuers were created using the uniform presentation system (templated) from S&P Global Markets Intelligence. The tables and graphs are also presented in English. As a general rule, the end of the previous reporting period and the two previous financial year-ends (where the data is available for this) are used as reference timeframes. Nevertheless, in some cases, issuer reporting periods for the publication of data differ. As such, while the most up-to-date data is always used for this study, some data is more recent than others. Efforts were also made to always identify the same data, although in some cases this has not been possible due to the different accounting approaches. The date of the last data update is given in each case. The maturity profiles by asset category (secured, unsecured, etc.) are taken from Bloomberg. The same is true of the asset swap spreads (ASW) of EUR-denominated, benchmark-size senior unsecured issues as well as those issues that feature in the iBoxx € Financials Senior, which are broken down by maturity. The ratings in the Issuer Profiles were reviewed as at 24 August 2023.

Relevant legal texts and regulations

The assessments and classifications we have made regarding LCR classification and risk weighting are based in particular on the applications of the applicable legal texts, which are presented schematically in the chapters <u>Risk Weights of Covered Bonds</u>, <u>Covered Bonds in the Context of LCR Management</u> and <u>LCR Management</u>: <u>Eligible Assets</u>. In this context, we focus on the legal and regulatory framework applicable since July 08, 2022.

Focus on EUR benchmark and EUR sub-benchmark issues

The classifications are determined with a focus on the relevant EUR benchmark and EUR subbenchmark issues from the respective issuer. In this respect, for example, we present the LCR level for EUR sub-benchmark issuers, which can be derived on the basis of the issue size of equal to or greater than EUR 250m but less than EUR 500m. At jurisdiction level (i.e. in the respective country Market Overviews) the best-case consideration is based on the EUR benchmark size.



Appendix Decsription of financial ratios

Balance sheet

Net Loans to Customers Total loans to customers, net of reserves for loan losses. Includes any loans held at amortised cost, available for sale, fair value through profit and loss and trading. For U.S. GAAP companies, this is total loans and finance leases outstanding, including those held for sale.

Total Securities

Total of all securities owned, valued as shown on the balance sheet according to the applicable accounting standards used for this financial statement. For U.S. GAAP, includes all securities in the trading, available for sale, held to maturity and other securities categories and does not include segregated securities or securities pledged as collateral for broker-dealers and asset managers. For full coverage banks outside of the U.S. and Canada and summary

coverage banks, includes other financial assets

Total Deposits

Total amount of deposits from customers.

Tier 1 Common

Capital

Tier 1 Common Capital (Common Equity Tier 1) as defined by the latest regulatory and supervisory guidelines. For US institutions, this will be transitional amounts when applicable. For non-US institutions, this may be transitional or fully loaded amounts, depending on avail-

ability.

Total Assets

All assets owned by the company as of the date indicated, as carried on the balance sheet

and defined under the indicated accounting principles.

Total Risk-weighted

Assets

Total risk-weighted assets according to appropriate accounting or regulatory standards.

Income statement

Net Interest Income

Interest income less interest expense before the provision for loan losses.

Net Fee &

Commission Income

Revenue from services to customers, net of expense from third parties related to services

provided to the company.

Net Trading Income

Realised and unrealised gains on trading account securities, plus any realised gains on secu-

rities available for sale or held to maturity.

Operating Expense

Total operating expenses from banking, insurance and asset management.

Credit Commitments

Impairment

Impairment charge of on and off-balance sheet loans.

Pre-tax Profit

Net profit before the effect of income taxes and any after-tax items, including minority in-

terest and extraordinary items.



Company ratios

Net Interest Margin Net interest income, on a fully taxable-equivalent basis if available, as a percent of average

earning assets. If average earning assets is not available, average financial assets may be

used.

ROAE Return on average equity; net profit as a percent of average equity.

Cost-to-Income Operating expense as a percent of operating income

Core Tier 1 Ratio Tier 1 common capital (core capital) as a percent of total risk-adjusted assets. For full cover-

age European banks, this excludes transitional capital adjustments when available.

Liquidity Coverage Ra-

tio

High quality liquid assets as a percent of net cash outflows over a thirty day period as defined

by local regulatory requirements.

IFRS Tier 1 Tier 1 common Seeks to replication Tier 1 common Seeks to replication Tier 1 common Tier

Tier 1 common capital as a percent of tangible assets less derivative liabilities. This ratio seeks to replicate the U.S. GAAP Leverage Ratio by roughly netting derivative assets against

liabilities.

Net Stable Funding

Ratio

Portfolio of permanently available liabilities (at least 1 year) as a percentage of the required

stable refinancing for the lending business.

NPL / Loans at Amortised Cost

Non-performing loans as a percent of loans held at amortised cost

Reserves / Loans at

Amortised Cost

Reserves for loan losses as a percent of loans held at amortised cost



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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
	+49 511 9818-6600 +49 511 361-2911	Firmenkunden Asset Finance	+49 511 361-4003 +49 511 361-8150
Origination FI			
Origination FI			
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