

Landesbank Hessen-Thueringen GZ - Public-Sector Covered Bonds

Covered Bonds / Germany

Contacts Martin Lenhard - +49 (697) 073-0743 - Martin.Lenhard@moodys.com

31/12/2023

Elisabeth Zeidler - +44 (207) 772-5283 - elisabeth.zeidler@moodys.com

All amounts in EUR (unless otherwise specified)

Monitor.CB@moodys.com Monitoring

Client Service Desk London: +44 20 7772-5454, csdlondon@moodys.com Click on the icon to download data into Excel & to see Glossary of terms used Click <u>here</u> to access the covered bond programme webpage on moodys.com

For information on how to read this report, see the latest

Moody's Covered Bonds Sector Update

Data as provided to Moody's Investors Service (note 1)

I. Programme Overview

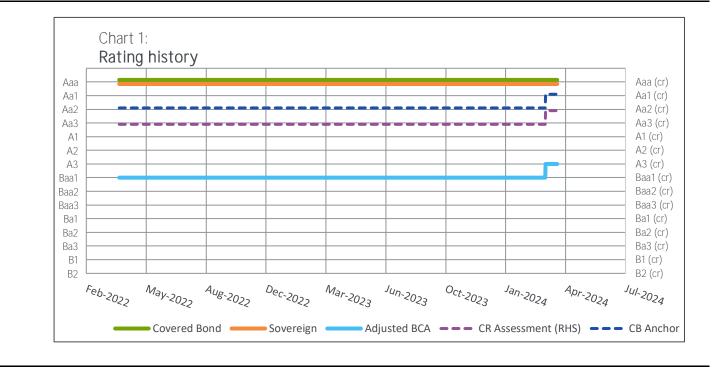
Overview

Reporting as of:

Year of initial rating assignment:		1995
Total outstanding liabilities:	EUR	20,709,600,547
Total assets in the Cover Pool:	EUR	32,212,742,992
Issuer name / CR Assessment:	Landesbank H	lessen-Thueringen GZ / Aa2(cr)
Group or parent name / CR Assessment:		n/a
Main collateral type:		Public Sector

Ratings

Ratings	
Covered bonds rating:	Aaa
Entity used in Moody's EL & TPI analysis:	Landesbank Hessen-Thueringen Girozentrale
CB anchor:	Aa1
CR Assessment:	Aa2(cr)
Adjusted BCA / SUR:	a3 / Aa2
Unsecured claim used for Moody's EL analysis:	Yes

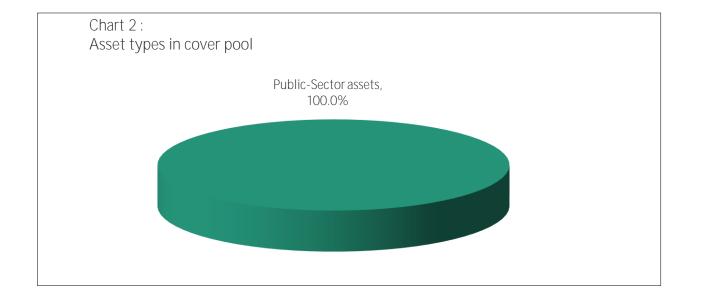


II. Value of the Cover Pool

Collateral quality

Collateral Score:	3.1%
Collateral Score excl. systemic risk:	n/a

Cover Pool losses		
Collateral Risk (Collateral Score post-haircut):	1.6%	17%
Market Risk:	7.4%	83%
	9.0%	100%



III. Over-Collateralisation Levels

(notes 2 & 3)

Over-Collateralisation (OC) figures presented below include Eligible only collateral.

Over-Collateralisation levels are provided on any of the following: nominal basis or unstressed NPV basis or on stressed NPV basis.

NPV stress assumptions applied as required by the legal framework for German Pfandbriefe.

Current situation

Committed OC (Stressed NPV):	2.0%
Current OC (Unstressed NPV):	59.6%
OC consistent with current rating (note 4)	0.0%

Besides 2% committed OC on NPV basis, in accordance with German Pfandbrief Act, the issuer is also required to hold additional 2% OC calculated on nominal basis.

Sensitivity scenario CB anchor

	OC consistent with current rating		
Scenario 1: CB anchor is lowered by	1 notch	0.0%	

IV. Timely Payment Indicator & TPI Leeway

Timely Payment Indicator (TPI):	High
TPLLeeway:	6

Extract from TPI table

CB Anchor	High
Aaa	Aaa
Aa1	Aaa
Aa2	Aaa
Aa3	Aaa
A1	Aaa
A2	Aaa
A3	Aaa
Baa1	Aaa
Baa2	Aa1

Legal framework

Does a specific covered bond law apply for this programme:	Yes, Pfandbrief Act
Main country in which collateral is based:	Germany
Country in which issuer is based:	Germany

Timely principal payments

Maturity type:	Soft Bullet
Committed liquidity reserve for principal amount of all hard bullet bonds to be	_
funded at least 180 days before maturity:	n/a
Committed liquidity reserve for principal amount of all soft bullet bonds to be	_
funded at least 180 days before initial maturity:	Yes

(note 1) The data reported in this PO is based on information provided by the issuer and may include certain assumptions made by Moody's. Moody's accepts no responsibility for the information provided to it and, whilst it believes the assumptions it has made are reasonable, cannot guarantee that they are or will remain accurate. Although Moody's encourages all issuers to provide reporting data in a consistent manner, there may be differences in the way that certain data is categorised by issuers. The data reporting template (which Issuers are requested to use) is available on request. Credit ratings, TPI and TPI Leeway shown in this PO are as of publication date.

(note 2) This assumes the Covered Bonds rating is not constrained by the TPI. Also to the extent rating assumptions change following a downgrade or an upgrade of the Issuer, the necessary OC stated here may also change. This is especially significant in the case of CR assessments of A3(cr) or Baa1(cr), as the necessary OC following a 1 notch downgrade may then be substantially higher than the amount suggested here as market risks are considered more critically by Moody's at this time. In any event, the necessary OC amounts stated here are subject to change at anytime at Moody's

(note 3) This is the minimum OC calculated to be consistent with the current rating under Moody's expected loss model. However, the level of OC consistent with a given rating level may differ from this amount where ratings are capped under the TPI framework and, for example, where

(note 4) The OC consistent with the current rating is the minimum level of over-collateralisation which is necessary to support the covered bond rating at its current level on the basis of the pool as per the cut-off date. The sensitivity run is based on certain assumptions, including that the Covered Bonds rating is not constrained by the TPI. Further, this sensitivity run is a model output only and therefore a simplification as it does not take into account certain assumptions that may change as an issuer is downgraded, and as a result the actual OC number consistent with the current rating may be higher than shown. The OC required may also differ from the model output in situations when committee discretion is applied. In any event, the OC amounts stated here are subject to change at any time at Moody's discretion.

COVERED BONDS MOODY'S INVESTORS SERVICE

V. Asset Liability Profile

20.0% 18.0%

16.0% 14.0% 12.0%

10.0% 8.0%

6.0%

4.0% 2.0%

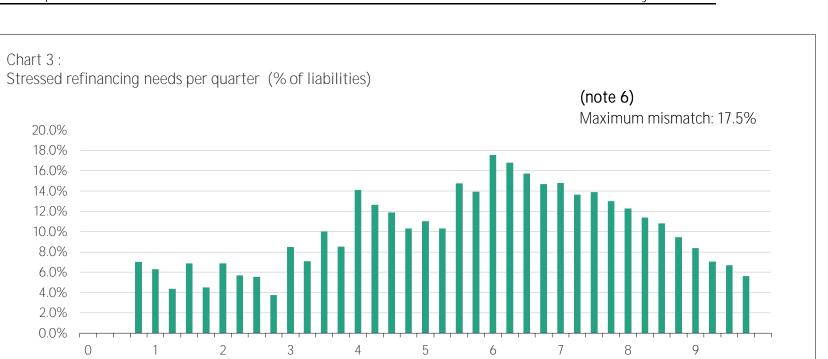
0.0%

0

Mismatch in % of the total liabilities

Interest Rate & Duration Mismatch (note 5)

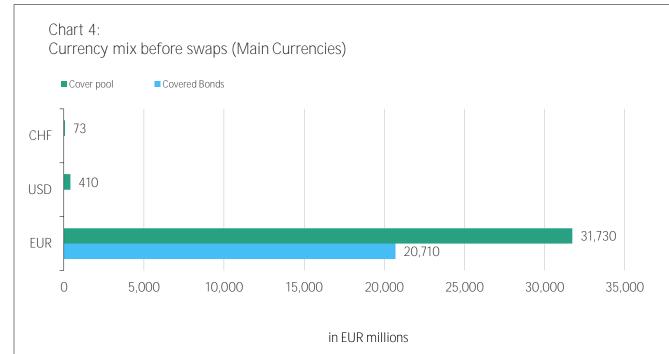
Fixed rate assets in the cover pool:	83.8%
Fixed rate covered bonds outstanding:	81.9%
WAL of outstanding covered bonds:	6.1 years
WAL of the cover pool:	8.6 years

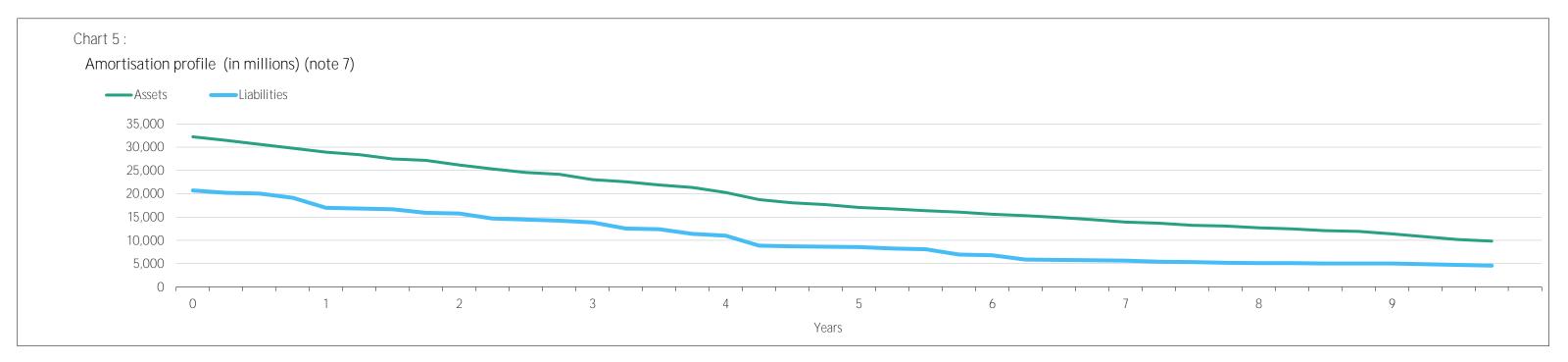


Period in years

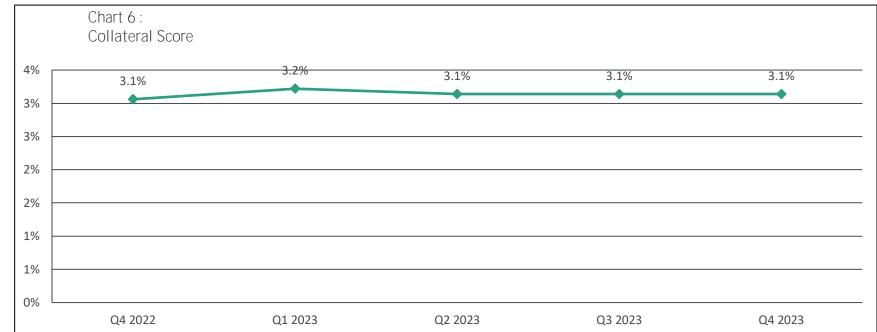
Swap Arrangements

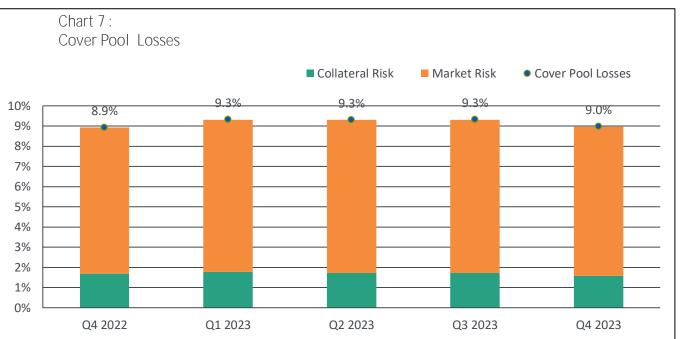
Interest rate swap(s) in the Cover Pool:	No
Intra-group interest rate swap(s) provider(s):	No
Currency swap(s) in the Cover Pool:	No
Intra-group currency swap(s) provider(s):	No

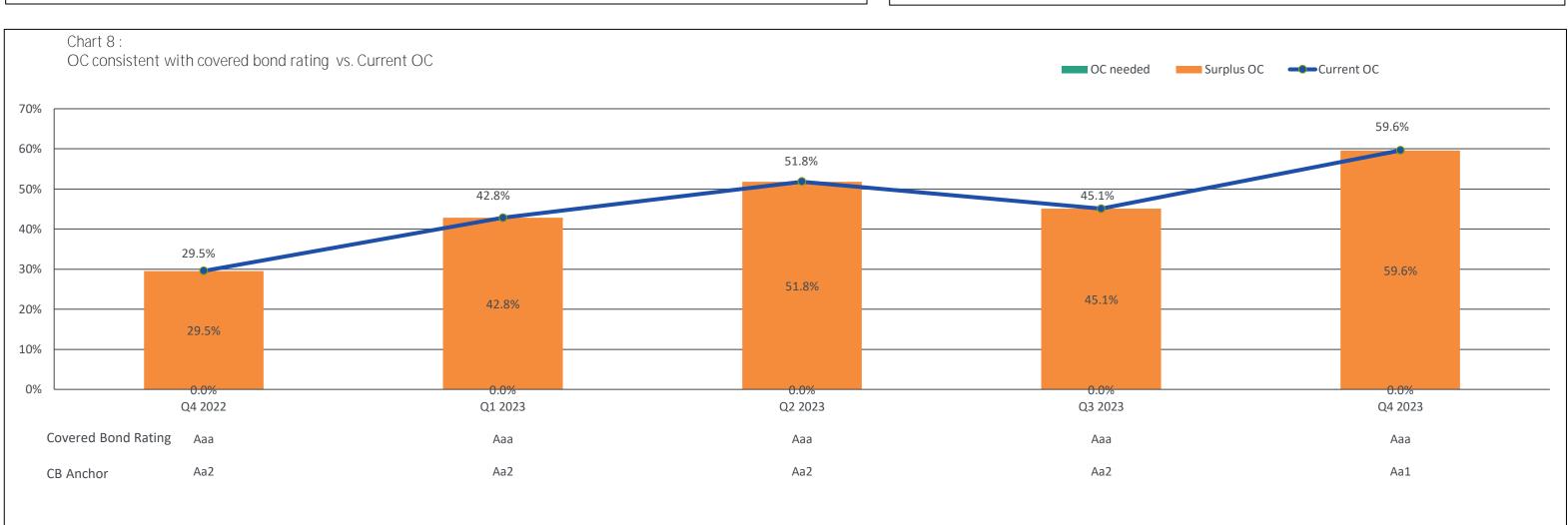




VI. Performance Evolution







This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <u>https://ratings.moodys.com</u> for the most updated credit rating action information and rating history.

(note 5) This assumes no prepayment.

(note 6) Based on principal flows only. Assumptions include no prepayments, principal collections limited to the portion of assets that make up the amount of the liabilities plus committed OC, no further CB issuance and no further assets added to the cover pool. (note 7) Assumptions include swaps in place in Cover Pool, no prepayment and no further CB issuance.

MOODY'S INVESTORS SERVICE COVERED BONDS

VII. Cover Pool Information - Public Sector Assets

Overview

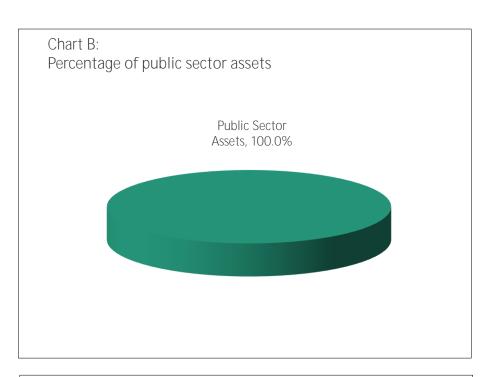
Overview	
Asset type:	Public Sector
Asset balance:	32,212,742,992
WA remaining Term (in months):	172
Number of borrowers:	4,718
Number of loans / bonds:	19,449
Exposure to the 10 largest borrowers:	26.2%
Average exposure to borrowers:	6,827,627

Specific Loan and Borrower characteristics

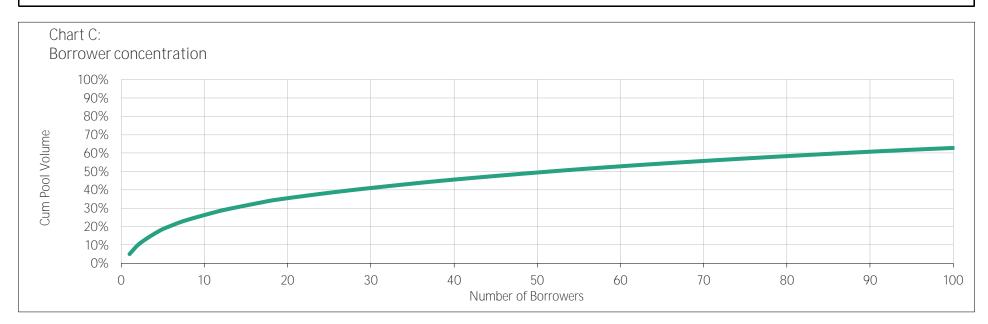
Repo eligible loans / bonds:

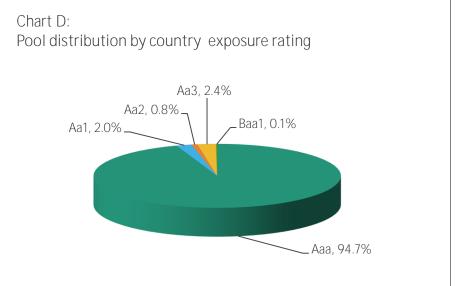
Percentage of fixed rate loans / bonds:	92.7%
Percentage of bullet loans/ bonds:	31.6%
Loans / bonds in non-domestic currency:	1.5%
Performance	
Loans / bonds in arrears (≥ 2months - < 6months):	0.0%
Loans / bonds in arrears (≥ 6months - < 12months):	0.0%
Loans / bonds in arrears (≥ 12months):	0.0%
Loans / bonds in a foreclosure procedure:	0.0%

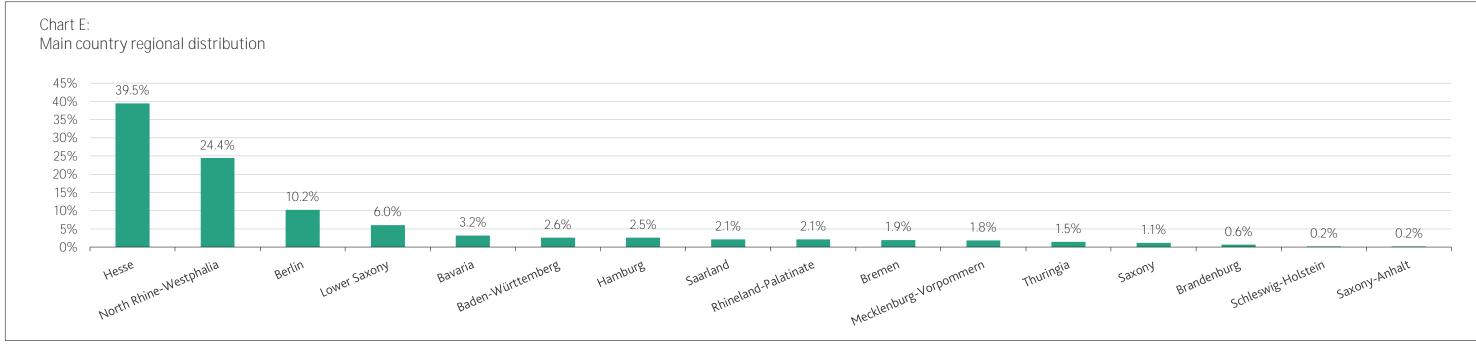
	Germany	Belgium	Austria	Other	Totals
Direct claim against supranational	0.0%	0.0%	0.0%	0.0%	0.0%
Direct claim against sovereign	0.2%	0.0%	0.2%	0.0%	0.3%
Loan with guarantee of sovereign	0.3%	0.1%	0.0%	4.6%	4.9%
Direct claim against region/federal state	28.6%	0.0%	0.0%	0.5%	29.2%
Loan with guarantee of region/federal state	4.2%	0.0%	1.7%	0.0%	6.0%
Direct claim against municipality	53.1%	0.0%	0.0%	0.4%	53.6%
Loan with guarantee of municipality	2.4%	2.1%	0.0%	0.0%	4.4%
Others	1.6%	0.0%	0.0%	0.0%	1.6%
	90.4%	2.1%	1.9%	5.6%	

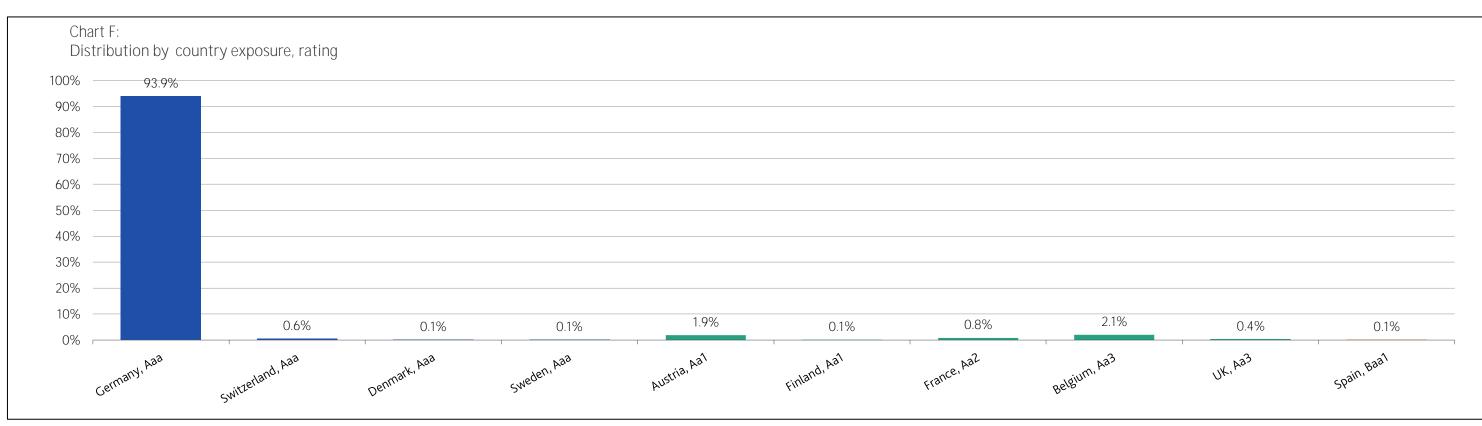


1.6%









MOODY'S INVESTORS SERVICE

COVERED BONDS

VIII. Liabilities Information: Last 50 Issuances

	Series		Outstanding	Issuance	Expected	Extended	Interest Rate		Princi
ISIN	Number	Currency	Amount	Date	Maturity	Maturity	Type	Coupon	Paym
DE000HLB43N8	n/d	EUR	10,000,000	30/11/2023	30/11/2033	30/11/2034	Fixed rate	3.285%	Soft B
XF0000HEZ8R4	n/d	EUR	6,000,000	16/11/2023	16/11/2043	16/11/2044	Fixed rate	3.490%	Soft B
XF0000HEZ8Q6	n/d	EUR	15,000,000	31/10/2023	31/10/2046	31/10/2047	Fixed rate	4.185%	Soft Bu
XS2711420054	n/d	EUR	750,000,000	31/10/2023	31/08/2027	31/08/2028	Fixed rate	3.500%	Soft B
XF0000HEZL86	n/d	EUR	3,000,000	30/09/2023	30/09/2028	30/09/2029	Floating rate	12-Monats-EURIBOR + 0 bps	Soft B
XF0000HEZ794	n/d	EUR	15,000,000	29/09/2023	29/09/2048	29/09/2049	Fixed rate	4.053%	Soft B
XS2673929944	n/d	EUR	1,000,000,000	29/08/2023	20/01/2028	20/01/2029	Fixed rate	3.375%	Soft B
XF0000HEZ7X4	n/d	EUR	5,000,000	17/08/2023	17/08/2043	17/08/2044	Fixed rate	3.890%	Soft B
XF0000HEZ7Y2	n/d	EUR	500,000	17/08/2023	17/08/2043	17/08/2044	Fixed rate	3.890%	Soft Bi
XF0000HEZ7T2	n/d	EUR	15,000,000	24/07/2023	24/07/2043	24/07/2044	Fixed rate	3.760%	Soft Bi
XF0000HEZ7U0	n/d	EUR	2,000,000	21/07/2023	21/07/2031	21/07/2032	Fixed rate	3.130%	Soft Bi
XF0000HEZ7R6	n/d	EUR	10,000,000	17/07/2023	17/07/2048	17/07/2049	Fixed rate	4.000%	Soft Bu
XF0000HEZ7M7	n/d	EUR	15,000,000	30/06/2023	30/06/2043	30/06/2044	Fixed rate	3.670%	Soft B
XF0000HEZ7F1	n/d	EUR	10,000,000	06/06/2023	06/06/2039	06/06/2040	Fixed rate	3.137%	Soft Bu
XF0000HEZ7G9	n/d	EUR	5,000,000	06/06/2023	06/06/2039	06/06/2040	Fixed rate	3.137%	Soft B
XF0000HEW676	n/d	EUR	10,000,000	14/04/2023	14/04/2038	14/04/2039	Fixed rate	2.840%	Soft Bu
XF0000HEZHJ4	n/d	EUR	10,000,000	04/04/2023	07/04/2037	07/04/2038	Fixed rate	3.182%	Soft B
DE000HLB4249	n/d	EUR	15,000,000	02/03/2023	02/03/2035	02/03/2036	Fixed rate	3.235%	Soft B
XF0000HEZFC3	n/d	EUR	30,000,000	28/02/2023	28/02/2035	28/02/2036	Fixed rate	3.240%	Soft B
XS2590759044	n/d	EUR	50,000,000	23/02/2023	23/02/2028	23/02/2029	Floating rate	3-Monats-EURIBOR + 3 bps	Soft B
XF0000HEZE77	n/d	EUR	20,000,000	16/02/2023	16/02/2035	16/02/2036	Fixed rate	3.080%	Soft Bu
XF0000HEZE10	n/d	EUR	5,000,000	07/02/2023	07/02/2039	07/02/2040	Fixed rate	3.000%	Soft B
DE000HLB42X9	n/d	EUR	975,000,000	09/12/2022	09/12/2024	09/12/2025	Floating rate	6-Monats-EURIBOR + 3 bps	Soft B
XF0000HEZDL9	n/d	EUR	6,000,000	22/11/2022	22/11/2047	22/11/2048	Fixed rate	3.260%	Soft B
DE000HLB42R1	n/d	EUR	13,000,000	26/10/2022	30/09/2027	30/09/2028	Fixed rate	3.090%	Soft B
XF0000HEZCY4	n/d								
XF0000HEZCX6	n/d	EUR	50,000,000	06/10/2022	08/10/2040	08/10/2041	Fixed rate	4.175%	Soft B
XF0000HEZL78	n/d	EUR	10,000,000	04/10/2022	04/10/2044	04/10/2045	Fixed rate	3.740%	Soft B
		EUR	3,087,723	30/09/2022	30/09/2028	30/09/2029	Floating rate	12-Monats-EURIBOR + 0 bps	Soft B
XF0000HEY9D3	n/d	EUR	3,000,000	12/05/2022	12/05/2037	12/05/2038	Fixed rate	2.130%	Soft B
XF0000HEY9E1	n/d	EUR	3,000,000	12/05/2022	12/05/2037	12/05/2038	Fixed rate	2.130%	Soft B
XF0000HEY9F8	n/d	EUR	5,000,000	12/05/2022	12/05/2037	12/05/2038	Fixed rate	2.130%	Soft B
XF0000HEY9G6	n/d	EUR	2,000,000	12/05/2022	12/05/2037	12/05/2038	Fixed rate	2.130%	Soft B
XF0000HEY854	n/d	EUR	10,000,000	06/05/2022	06/05/2052	06/05/2053	Fixed rate	2.700%	Soft B
XF0000HEY862	n/d	EUR	5,000,000	06/05/2022	06/05/2052	06/05/2053	Fixed rate	2.700%	Soft B
XF0000HEY8Y1	n/d	EUR	20,000,000	05/05/2022	05/05/2042	05/05/2043	Fixed rate	2.260%	Soft B
XF0000HEY8Z8	n/d	EUR	5,000,000	05/05/2022	05/05/2042	05/05/2043	Fixed rate	2.260%	Soft B
XF0000HEY748	n/d	EUR	10,000,000	23/03/2022	23/03/2037	23/03/2038	Fixed rate	1.571%	Soft B
XF0000HEY755	n/d	EUR	3,000,000	23/03/2022	23/03/2037	23/03/2038	Fixed rate	1.571%	Soft B
XS2461137189	n/d	EUR	50,000,000	22/03/2022	22/03/2027	22/03/2028	Fixed rate	0.724%	Soft B
XF0000HEY7Y3	n/d	EUR	10,000,000	11/03/2022	11/03/2052	11/03/2053	Fixed rate	1.510%	Soft B
XS2445172187	n/d	EUR	100,000,000	16/02/2022	16/02/2027	16/02/2028	Fixed rate	0.500%	Soft B
DE000HLB41Z6	n/d	EUR	3,000,000	09/02/2022	09/02/2052	09/02/2053	Fixed rate	1.200%	Soft Bi
XF0000HEY656	n/d	EUR	25,000,000	07/02/2022	07/02/2052	07/02/2053	Fixed rate	1.430%	Soft Bi
XF0000HEY664	n/d	EUR	10,000,000	07/02/2022	07/02/2052	07/02/2053	Fixed rate	1.430%	Soft B
XF0000HEY672	n/d	EUR	10,000,000	07/02/2022	07/02/2052	07/02/2053	Fixed rate	1.430%	Soft B
XF0000HEY680	n/d	EUR	5,000,000	07/02/2022	07/02/2052	07/02/2053	Fixed rate	1.430%	Soft B
XS2433240764	n/d	EUR	1,000,000,000	19/01/2022	19/01/2037	19/01/2038	Fixed rate	0.500%	Soft B
XF0000HEY6Q1	n/d	EUR	10,000,000	18/01/2022	18/01/2044	18/01/2045	Fixed rate	1.115%	Soft B
XF0000HEY6R9	n/d	EUR	2,000,000	18/01/2022	18/01/2044	18/01/2045	Fixed rate	1.115%	Soft B
XF0000HEZL60	n/d	EUR	3,172,635	30/09/2021	30/09/2028	30/09/2029	Floating rate	12-Monats-EURIBOR + 0 bps	Soft B

MOODY'S INVESTORS SERVICE

COVERED BONDS

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS OTHER OPINIONS AND MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Riesgo S.A., and Moody's Local BR Agência de Riesgo S.A., Moody's Local BR Agência de Riesgo S.A., and Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A., (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

