

### Berlin Hyp AG - Mortgage Covered Bonds

#### Covered Bonds / Germany

##### Contacts

Lenhard, Martin - +49 (697) 073-0743 - Martin.Lenhard@moodys.com  
Prabhat, Prerna - +91 (806) 885-8181 - Prerna.Prabhat@moodys.com



##### Monitoring

Monitor.CB@moodys.com

Click on the icon to download data into Excel & to see Glossary of terms used

##### Client Service Desk

London: +44 20 7772-5454, csdlondon@moodys.com

Click [here](#) to access the covered bond programme webpage on moodys.com

##### Reporting as of:

31/12/2020

All amounts in EUR (unless otherwise specified)

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)

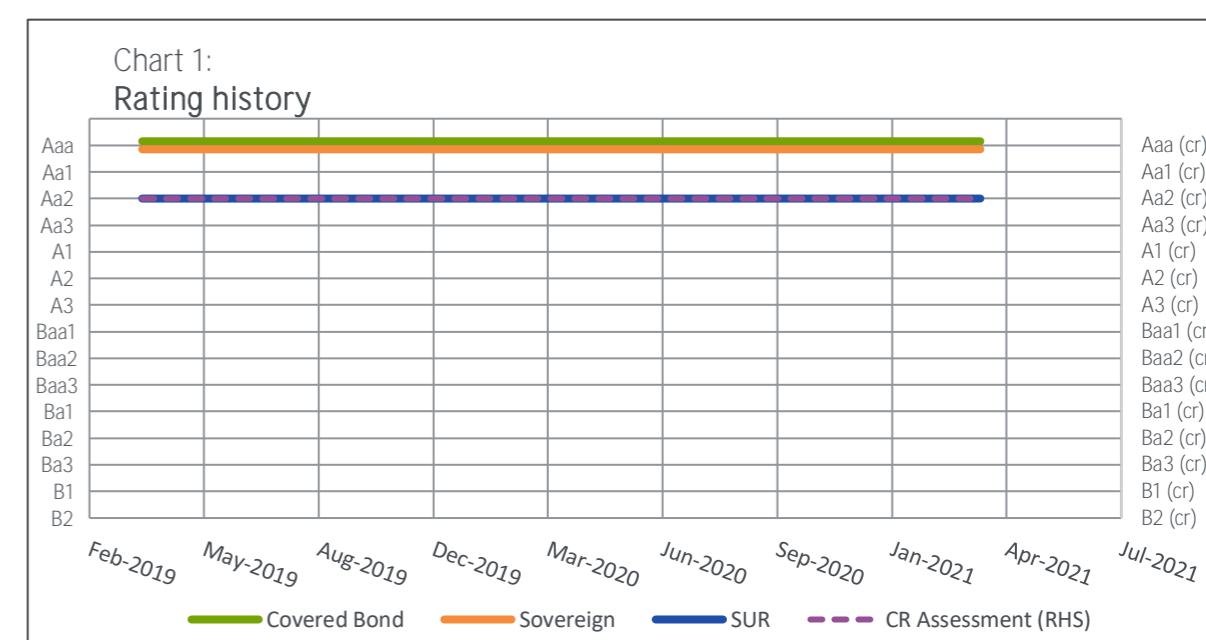
## I. Programme Overview

### Overview

Year of initial rating assignment:		2006
Total outstanding liabilities:	EUR	14,838,674,820
Total assets in the Cover Pool:	EUR	15,196,211,322
Issuer name / CR Assessment:		Berlin Hyp AG / Aa2(cr)
Group or parent name / CR Assessment:		Landesbank Berlin Holding AG / n/a
Main collateral type:		Commercial

### Ratings

Covered bonds rating:		Aaa
Entity used in Moody's EL & TPI analysis:		Berlin Hyp AG
CB anchor:		CR Assessment + 1 notch
CR Assessment:		Aa2(cr)
SUR:		Aa2
Unsecured claim used for Moody's EL analysis:		Yes



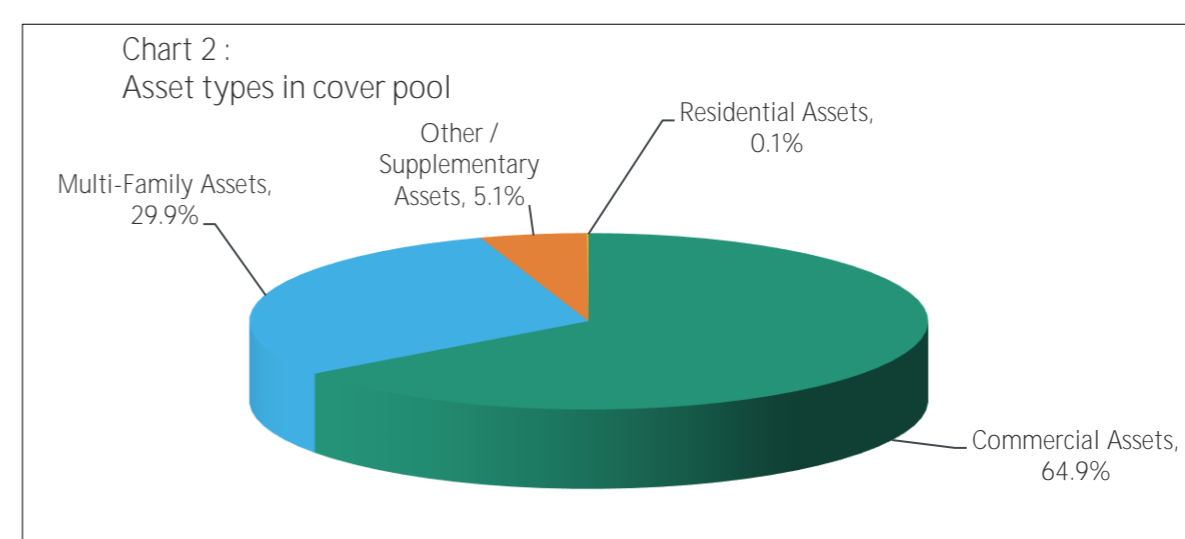
## II. Value of the Cover Pool

### Collateral quality

Collateral Score:		13.6%
Collateral Score excl. systemic risk:		n/a

### Cover Pool losses

Collateral Risk (Collateral Score post-haircut):	9.1%	45%
Market Risk:	11.0%	55%
	20.1%	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):	3.8%
OC consistent with current rating (note 4)	0.0%

### Sensitivity scenario CB anchor

		OC consistent with current rating
Scenario 1: CB anchor is lowered by	1 notch	0.5%

## IV. Timely Payment Indicator & TPI Leeway

Timely Payment Indicator (TPI):	High
TPI Leeway:	6

### Extract from TPI table - CB anchor is CR Assessment + 1 notch

CR Assessment	High
Aaa(cr)	Aaa
Aa1(cr)	Aaa
<b>Aa2(cr)</b>	<b>Aaa</b>
Aa3(cr)	Aaa
A1(cr)	Aaa
A2(cr)	Aaa
A3(cr)	Aaa
Baa1(cr)	Aaa
Baa2(cr)	Aaa
Baa3(cr)	Aa1

### Legal framework

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

### Timely payment

Refinancing period for principal payments of 6 months or greater:	No
Liquidity reserve to support timely payments on all issuances:	Yes

Please refer to section 4 of the Pfandbrief Act.

(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 discretion.

(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 committee discretion is applied.

(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.

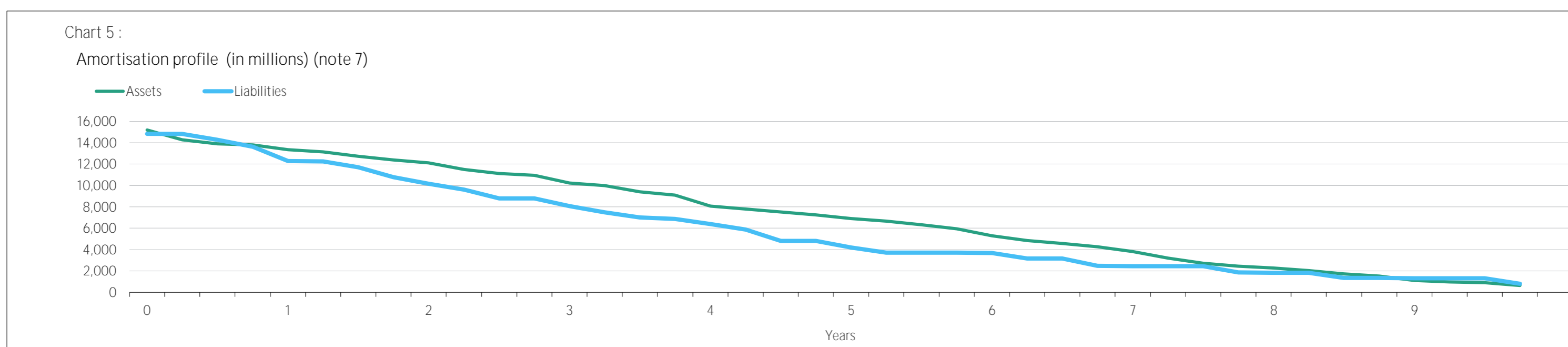
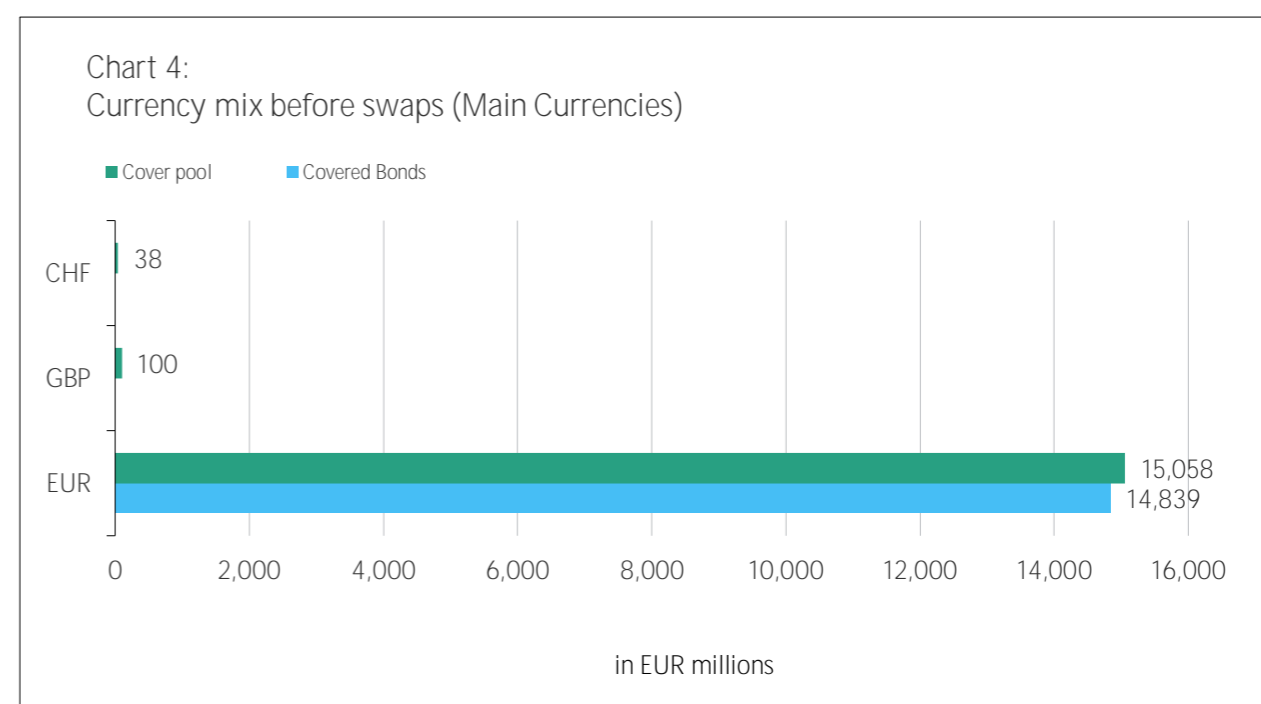
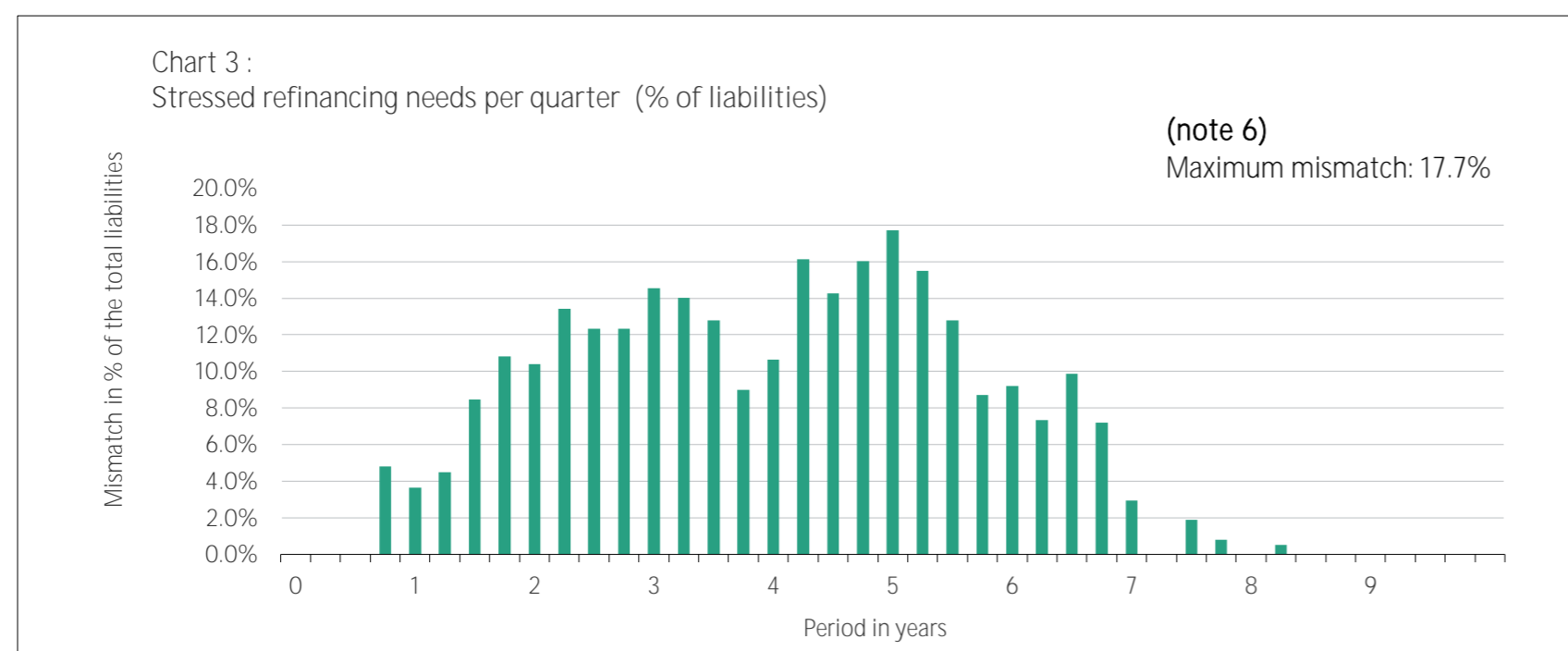
## V. Asset Liability Profile

### Interest Rate & Duration Mismatch (note 5)

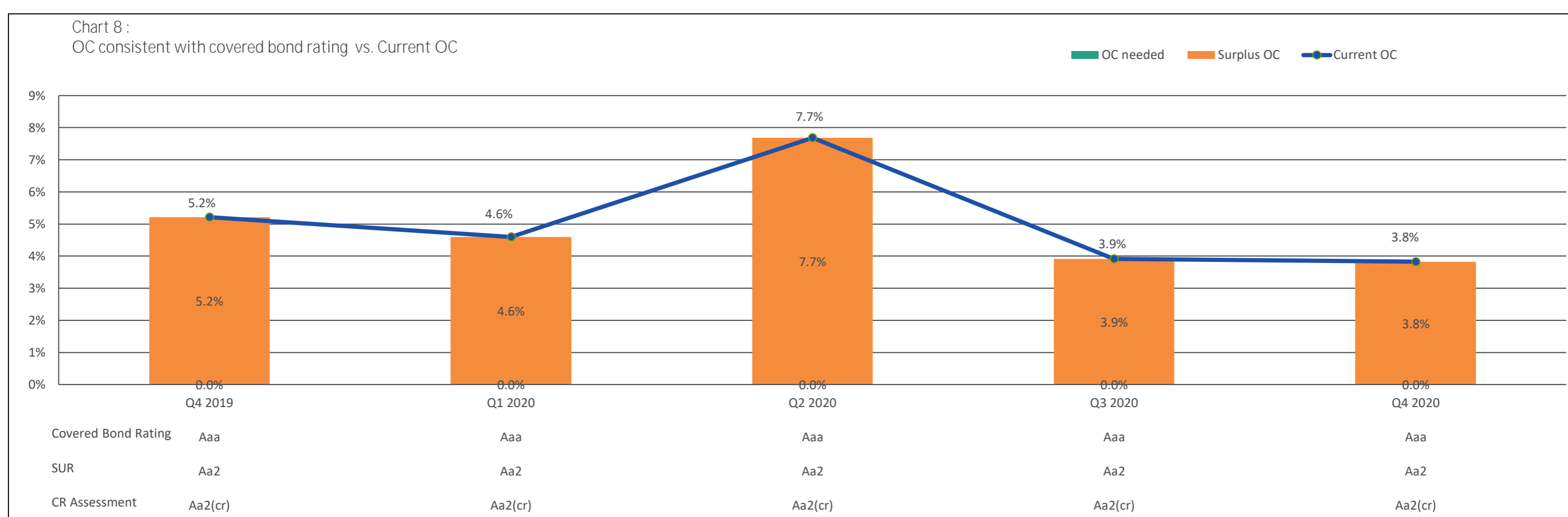
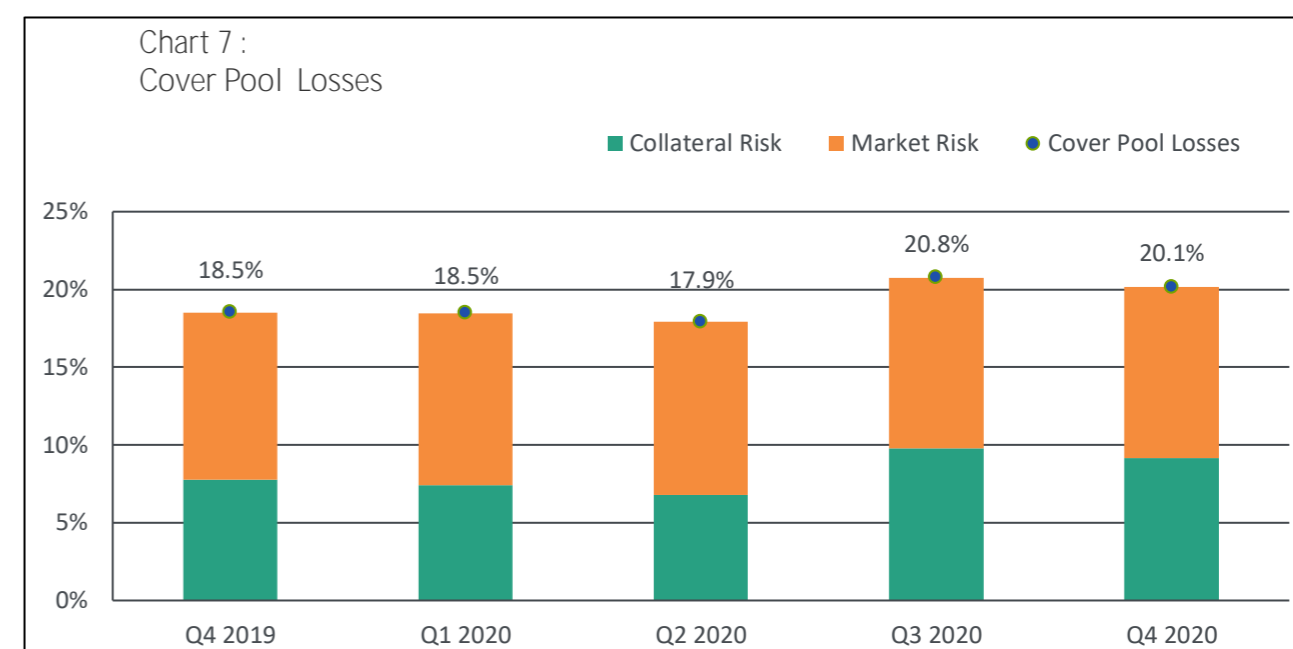
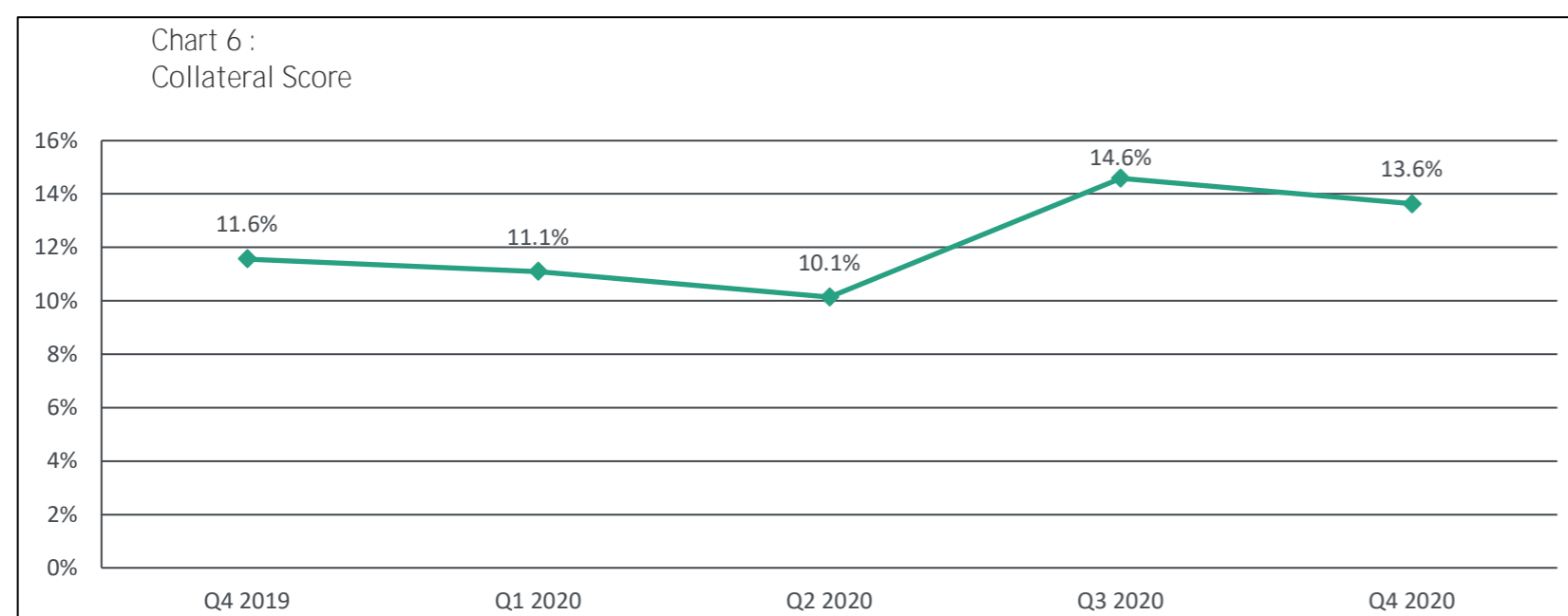
Fixed rate assets in the cover pool:	73.4%
Fixed rate covered bonds outstanding:	80.4%
WAL of outstanding covered bonds:	4.5 years
WAL of the cover pool:	5.2 years

### 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 ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) 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.

VII. Cover Pool Information - Commercial Assets

Overview

Asset type:	Commercial
Asset balance:	14,456,128,155
Average loan balance:	10,918,526
Number of loans:	1,324
Number of borrowers:	748
Largest 10 borrowers:	12.5%
Number of properties:	5,193
Main countries:	Germany (67.8%), Netherlands (14.0%), France (9.3%)

Specific Loan and Borrower characteristics

Bullet loans:	48.6%
Main currencies:	EUR (99.0%), GBP (0.7%), CHF (0.3%)
Fixed rate loans:	72.0%
Non-recourse to sponsor/initiator:	n/d

Details on Loan Underwriting

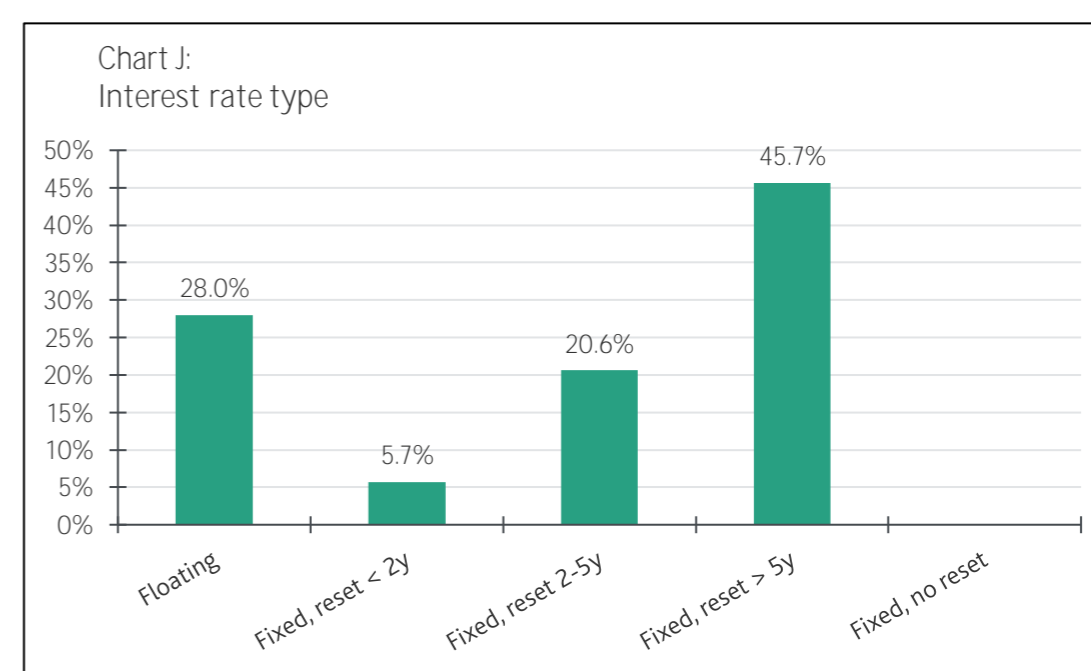
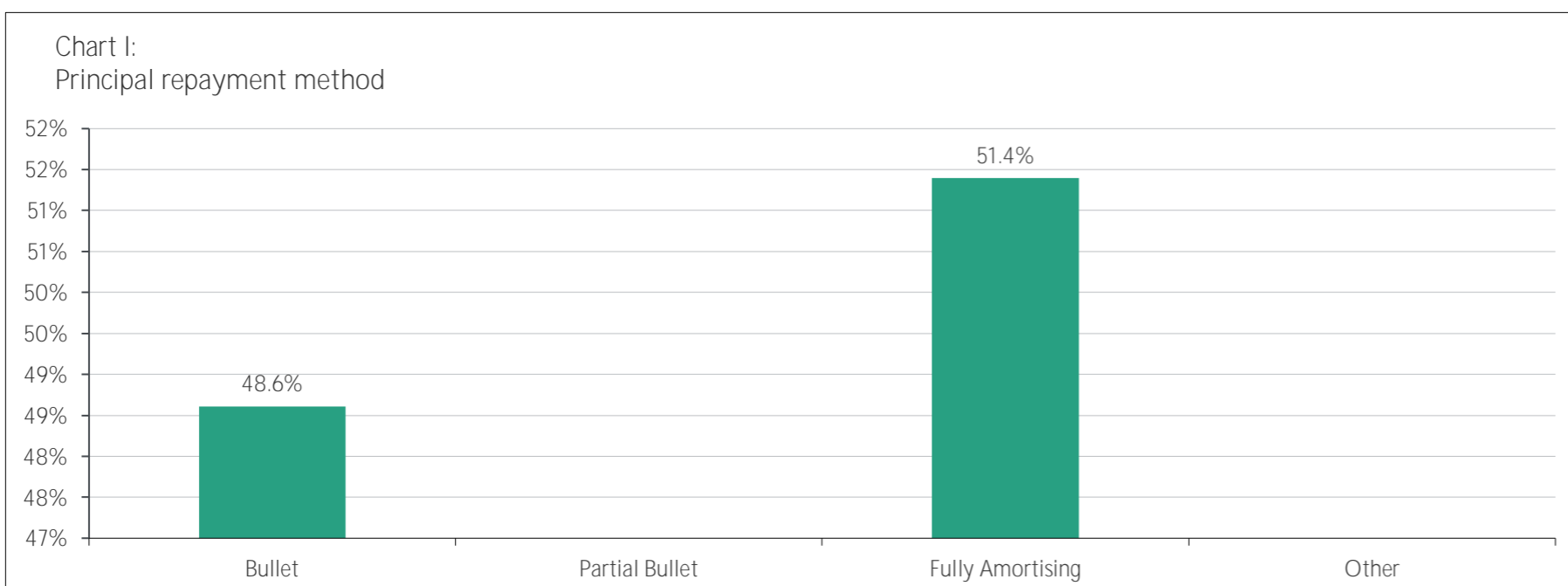
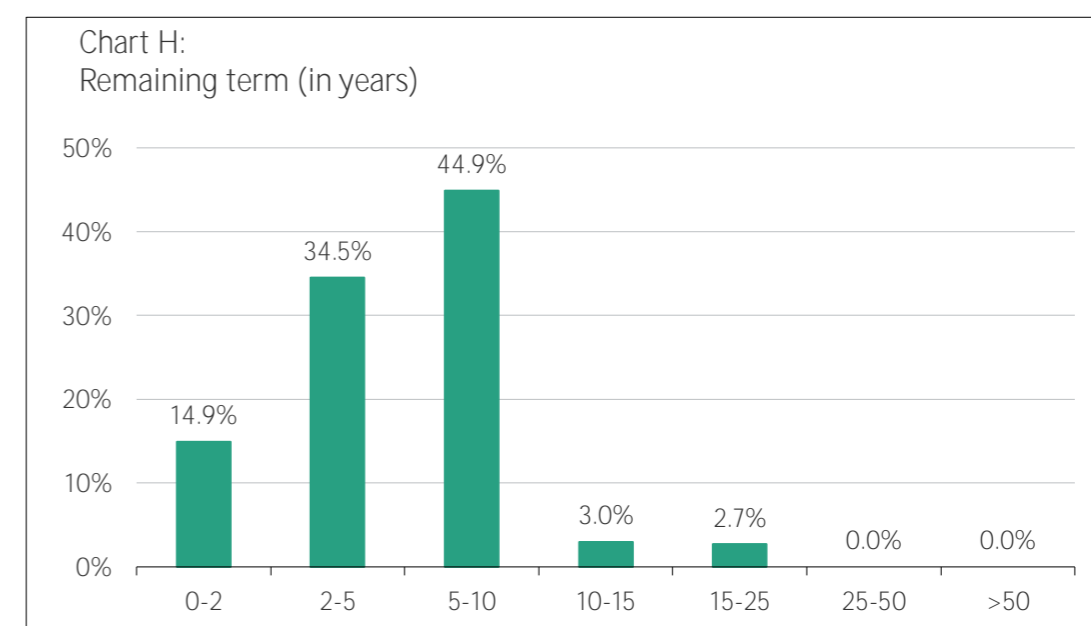
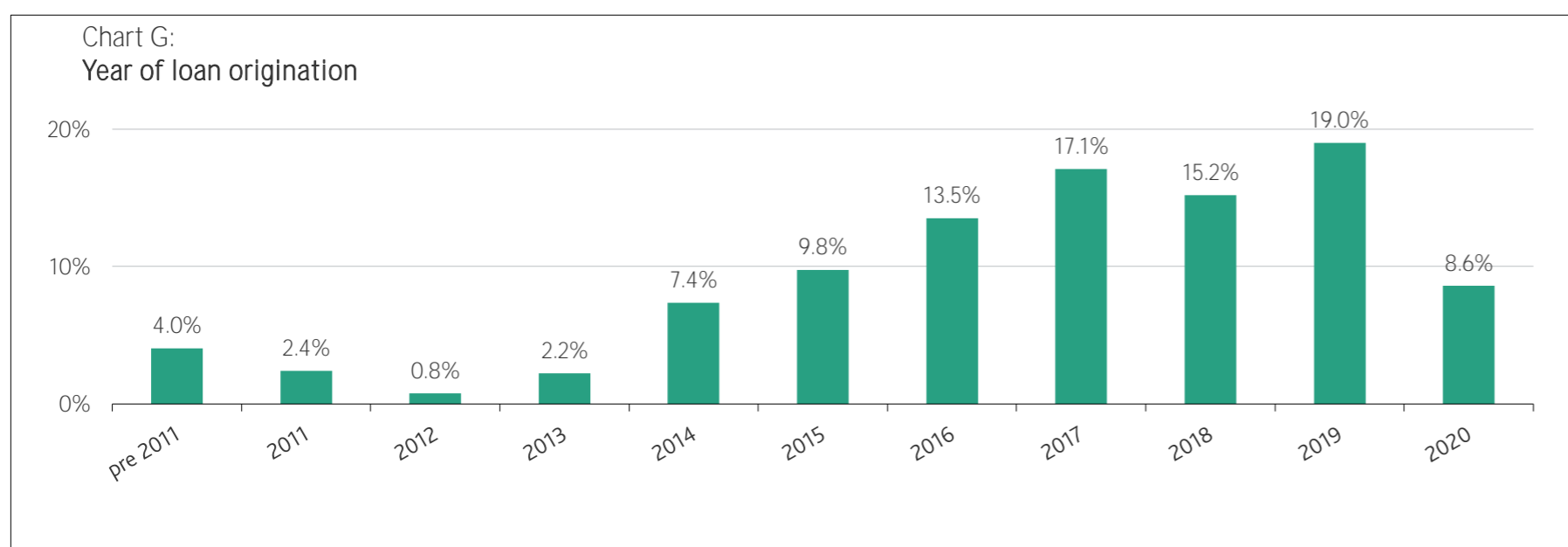
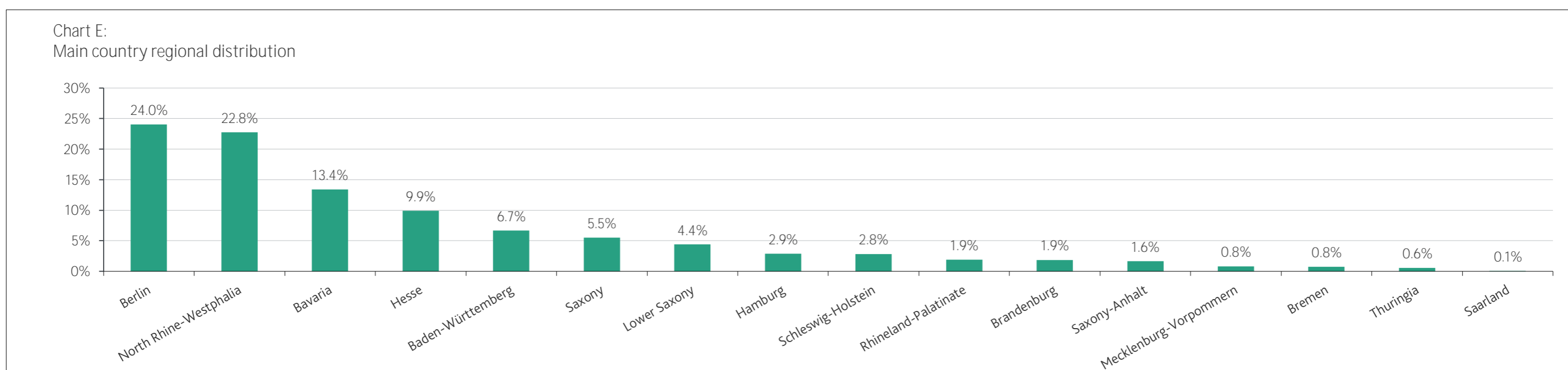
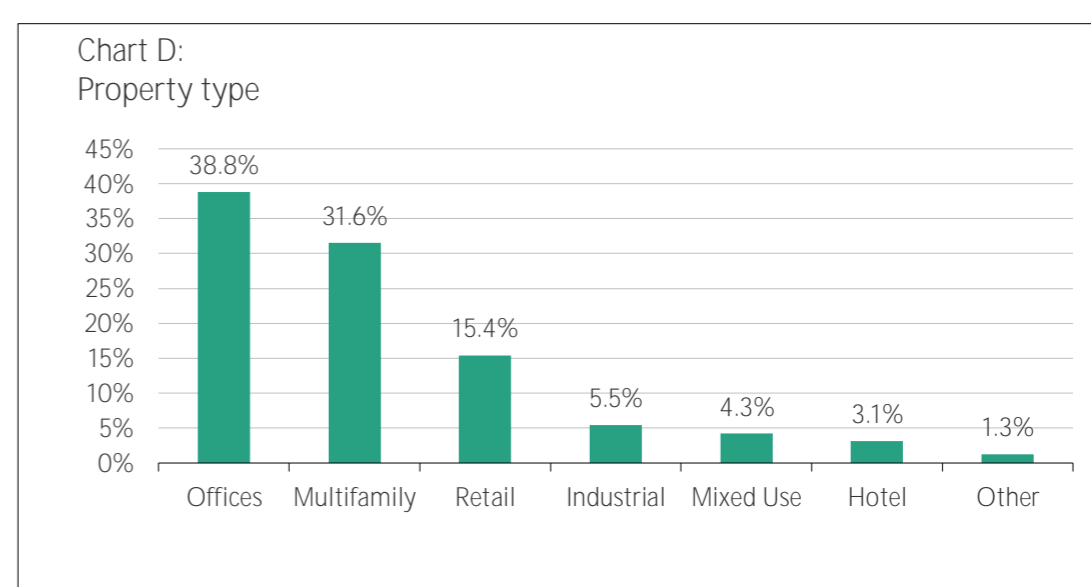
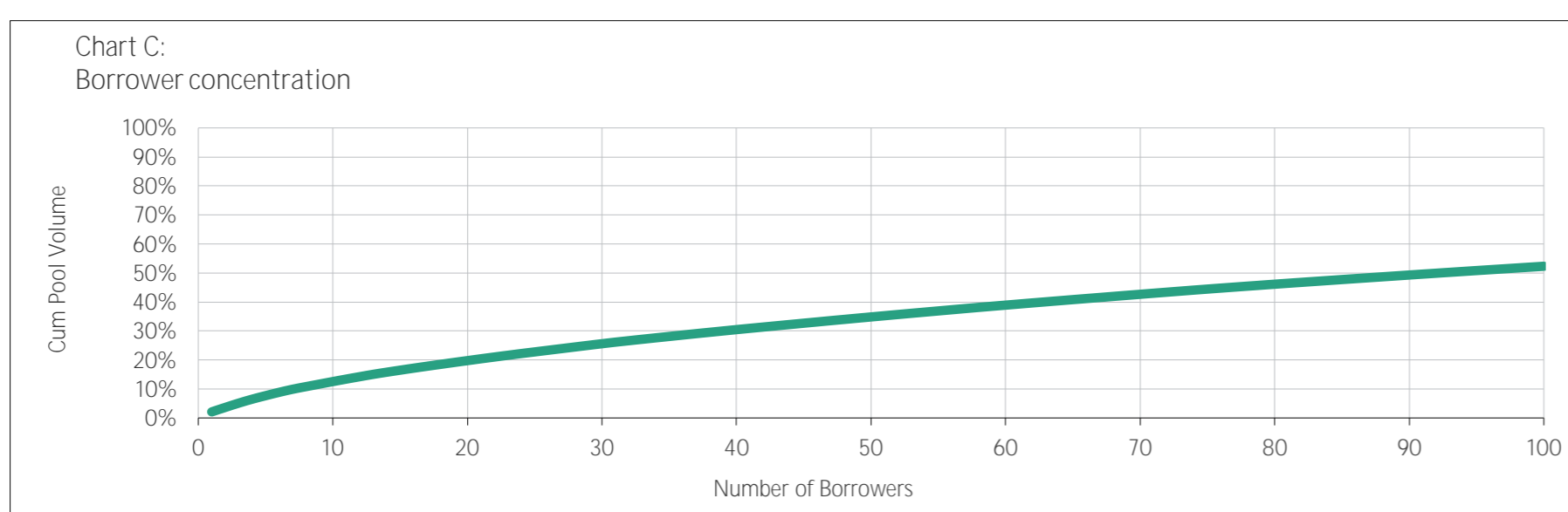
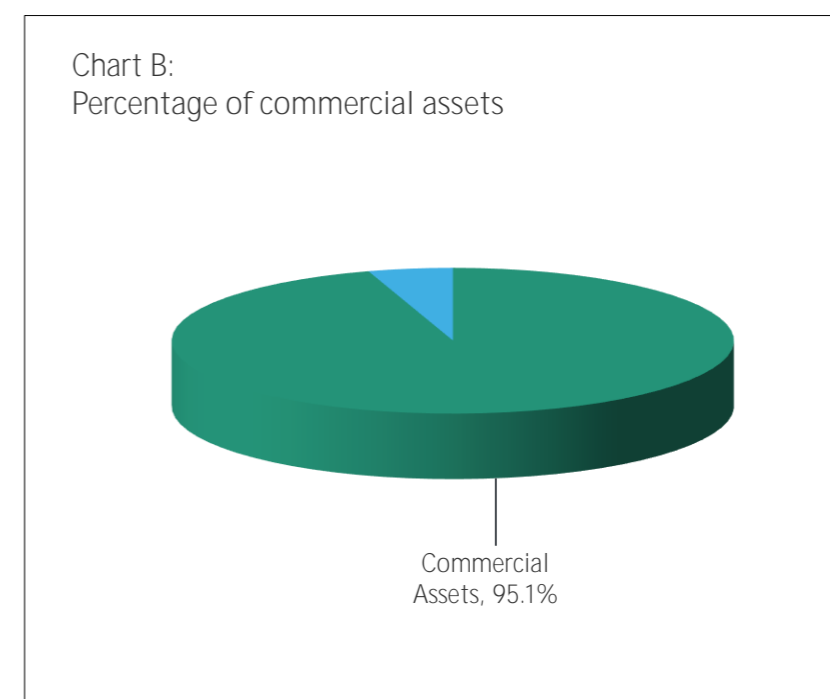
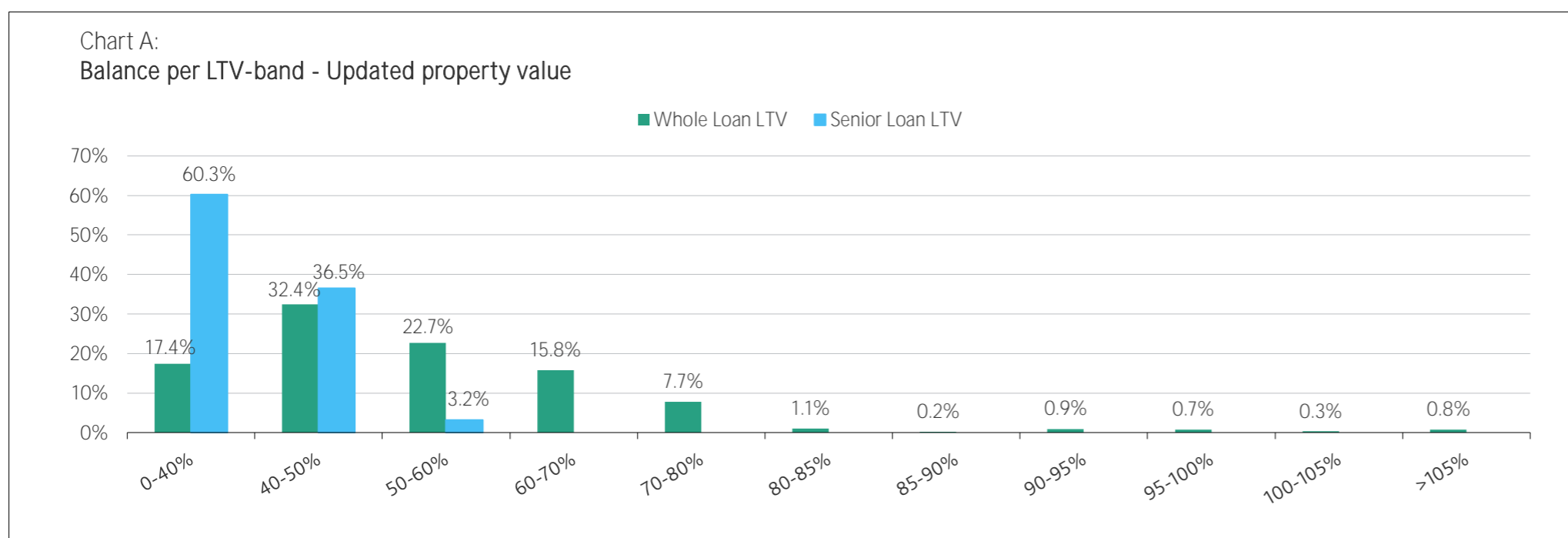
WA DSCR:	n/d
WA loan seasoning (in months):	47
WA remaining term (in months):	66

Details on LTV

WA LTV(*):	n/d
WA Current LTV(**):	52.0%
Valuation type:	Market Value
LTV Threshold:	60.0%

Performance

Loans in arrears ≥ 2 months:	0.0%
Loans in a foreclosure procedure:	0.0%



(note \*) Based on whole loan and property value at origination.  
 (note \*\*) Based on whole loan and updated property value.

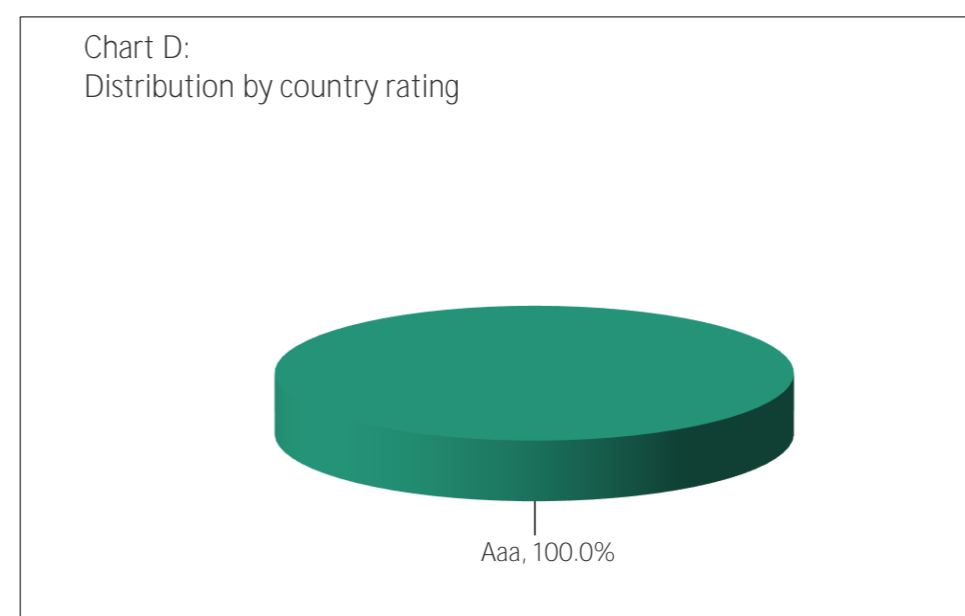
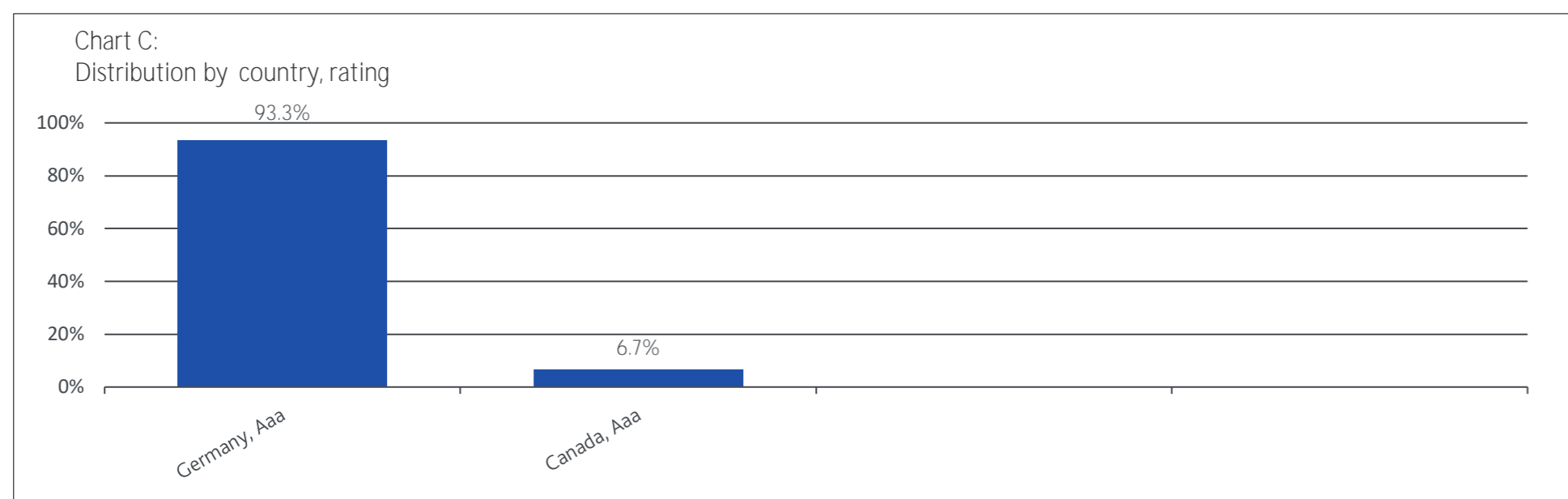
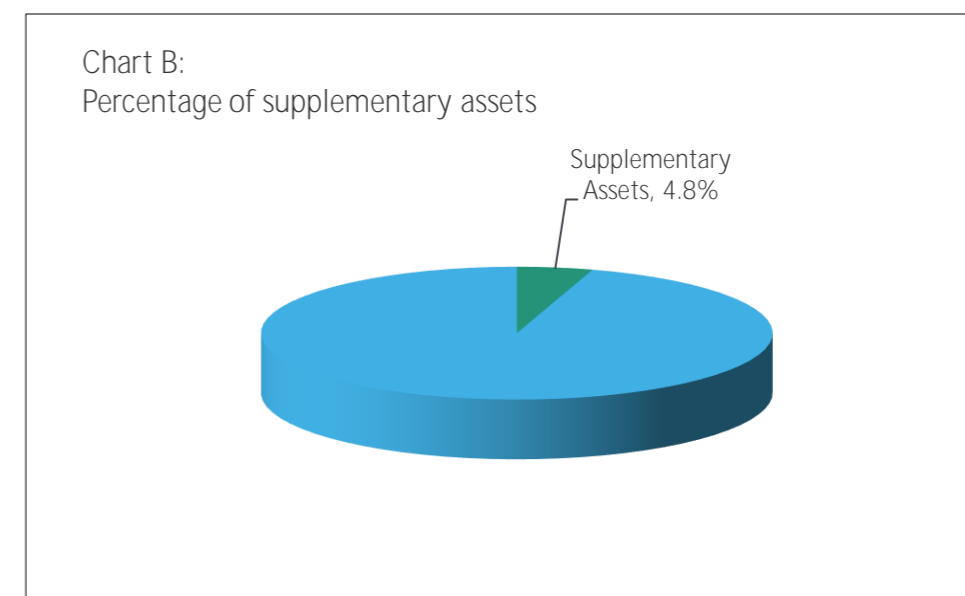
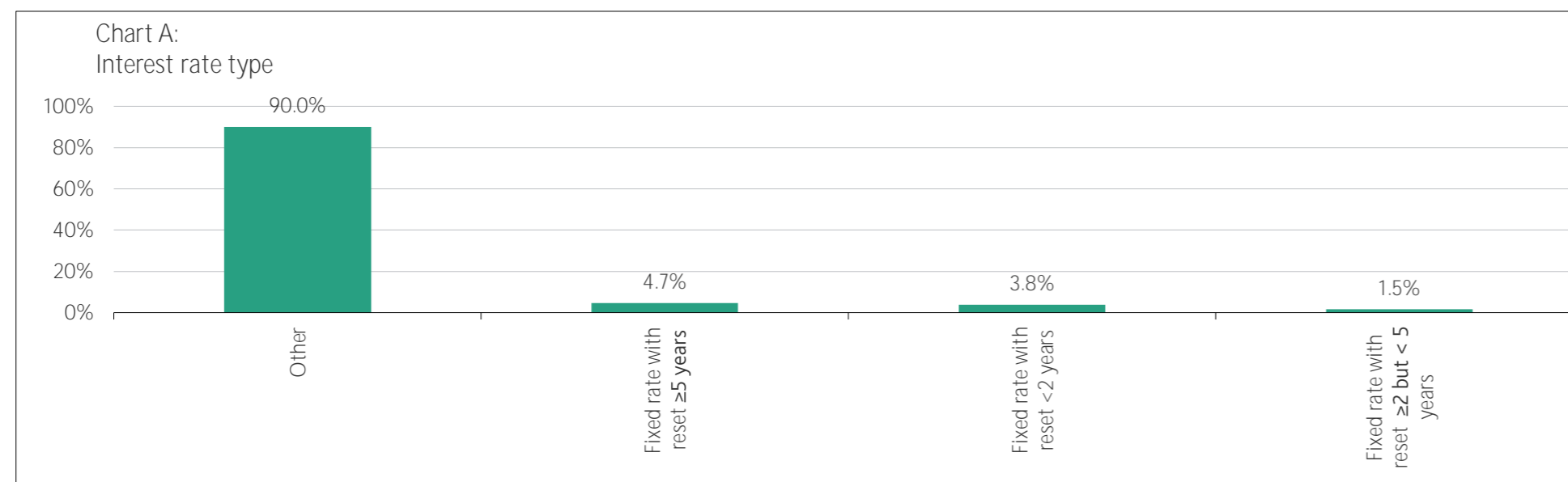
VIII. Cover Pool Information - Supplementary Assets

Overview

Asset type:	Supplementary Assets
Asset balance:	728,000,000
WA remaining Term (in months):	5
Number of assets:	6
Number of borrowers:	4
Average assets size:	121,333,333
Average exposure to borrowers:	182,000,000

Specific Loan and Borrower characteristics

Repo eligible assets:	0.0%
Percentage of fixed rate assets:	10.0%
Percentage of bullet assets:	10.0%
Assets in non-domestic currency:	0.0%
<b>Performance</b>	
Assets in arrears (≥ 2months - < 6months):	0.0%
Assets in arrears (≥ 6months - < 12months):	0.0%
Assets in arrears (> 12months):	0.0%
Assets in a enforcement procedure:	0.0%



## IX. Liabilities Information: Last 50 Issuances

ISIN	Series Number	Currency	Outstanding Amount	Issuance Date	Expected Maturity	Legal Final Maturity	Interest Rate Type	Coupon	Principal Payment
DE000BHYOHP3	n/d	EUR	15,000,000	12/10/2020	12/10/2050	12/10/2050	Fixed rate	1.750%	HARD BULLET
DE000BHYOHN8	n/d	EUR	9,000,000	29/09/2020	29/09/2032	29/09/2032	Fixed rate	0.130%	HARD BULLET
DE000BHYOGX9	n/d	EUR	500,000,000	02/09/2020	02/09/2030	02/09/2030	Fixed rate	0.010%	HARD BULLET
701060500	n/d	EUR	10,000,000	01/09/2020	01/09/2050	01/09/2050	Fixed rate	0.885%	HARD BULLET
701060300	n/d	EUR	5,000,000	21/08/2020	21/08/2035	21/08/2035	Fixed rate	0.320%	HARD BULLET
701060400	n/d	EUR	5,000,000	21/08/2020	21/08/2035	21/08/2035	Fixed rate	0.310%	HARD BULLET
DE000BHYOHM0	n/d	EUR	10,000,000	20/07/2020	20/07/2050	20/07/2050	Fixed rate	0.895%	HARD BULLET
DE000BHYOGD1	n/d	EUR	500,000,000	07/07/2020	07/07/2028	07/07/2028	Fixed rate	0.010%	HARD BULLET
DE000BHYOHL2	n/d	EUR	400,000,000	15/06/2020	13/06/2025	13/06/2025	Floating rate	EURIBOR03 + 10 bps	HARD BULLET
DE000BHYOHK4	n/d	EUR	15,000,000	05/06/2020	05/06/2023	05/06/2023	Fixed rate	0.010%	HARD BULLET
DE000BHYOB06	n/d	EUR	670,000,000	18/05/2020	16/05/2025	16/05/2025	Floating rate	EURIBOR03 + 24 bps	HARD BULLET
DE000BHYOHC1	n/d	EUR	15,000,000	04/03/2020	04/03/2050	04/03/2050	Fixed rate	0.750%	HARD BULLET
DE000BHYOB14	n/d	EUR	500,000,000	17/02/2020	17/02/2027	17/02/2027	Fixed rate	0.010%	HARD BULLET
DE000BHYOBZ5	n/d	EUR	20,000,000	28/01/2020	28/01/2025	28/01/2025	Floating rate	EURIBOR03 + 50 bps	HARD BULLET
DE000BHYOBW2	n/d	EUR	425,000,000	25/11/2019	14/11/2024	14/11/2024	Floating rate	EURIBOR03 + 4 bps	HARD BULLET
DE000BHYOBV4	n/d	EUR	100,000,000	17/10/2019	17/10/2025	17/10/2025	Fixed rate	0.010%	HARD BULLET
DE000BHYOBU6	n/d	EUR	150,000,000	30/09/2019	31/10/2023	31/10/2023	Floating rate	EURIBOR03 + 0 bps	HARD BULLET
DE000BHYOBS0	n/d	EUR	840,508,000	27/08/2019	29/08/2022	29/08/2022	Fixed rate	0.010%	HARD BULLET
DE000BHYOGL4	n/d	EUR	500,000,000	17/07/2019	19/07/2027	19/07/2027	Fixed rate	0.010%	HARD BULLET
701060100	n/d	EUR	5,000,000	27/06/2019	27/06/2029	27/06/2029	Fixed rate	0.210%	HARD BULLET
DE000BHYOBC4	n/d	EUR	500,000,000	29/05/2019	29/05/2029	29/05/2029	Fixed rate	0.375%	HARD BULLET
701060000	n/d	EUR	10,000,000	17/01/2019	17/01/2059	17/01/2059	Fixed rate	1.960%	HARD BULLET
DE000BHYOBN1	n/d	EUR	10,000,000	12/12/2018	12/12/2028	12/12/2028	Fixed rate	0.800%	HARD BULLET
DE000BHYOGC3	n/d	EUR	500,000,000	22/10/2018	22/10/2025	22/10/2025	Fixed rate	0.625%	HARD BULLET
DE000BHYOBH3	n/d	EUR	633,164,000	09/07/2018	10/10/2022	10/10/2022	Zero Bond	Zero	HARD BULLET
DE000BHYO150	n/d	EUR	732,286,000	30/05/2018	30/05/2023	30/05/2023	Fixed rate	0.250%	HARD BULLET
701059900	n/d	EUR	5,000,000	15/05/2018	15/05/2028	15/05/2028	Fixed rate	0.895%	HARD BULLET
701059800	n/d	EUR	5,000,000	26/04/2018	26/04/2028	26/04/2028	Fixed rate	0.920%	HARD BULLET
701059700	n/d	EUR	5,000,000	20/03/2018	20/03/2048	20/03/2048	Fixed rate	2.000%	HARD BULLET
DE000BHYOMY5	n/d	EUR	580,000,000	12/03/2018	30/07/2021	30/07/2021	Floating rate	EURIBOR03 - 5 bps	HARD BULLET
DE000BHYOMX7	n/d	EUR	500,000,000	26/02/2018	26/02/2026	26/02/2026	Fixed rate	0.750%	HARD BULLET
DE000BHYOMW9	n/d	EUR	50,000,000	15/02/2018	15/02/2023	15/02/2023	Floating rate	EURIBOR03 + 20 bps	HARD BULLET
701059600	n/d	EUR	5,000,000	14/02/2018	14/02/2028	14/02/2028	Fixed rate	0.950%	HARD BULLET
DE000BHYOMU3	n/d	EUR	740,800,000	28/11/2017	29/11/2021	29/11/2021	Zero Bond	Zero	HARD BULLET
701059500	n/d	EUR	5,000,000	24/10/2017	24/10/2057	24/10/2057	Fixed rate	1.900%	HARD BULLET
701059400	n/d	EUR	5,000,000	11/09/2017	11/09/2057	11/09/2057	Fixed rate	1.820%	HARD BULLET
DE000BHYOMT5	n/d	EUR	500,000,000	05/09/2017	05/01/2024	05/01/2024	Fixed rate	0.125%	HARD BULLET
701059300	n/d	EUR	5,000,000	05/09/2017	05/09/2022	05/09/2022	Fixed rate	0.005%	HARD BULLET
701059200	n/d	EUR	5,000,000	30/06/2017	29/06/2057	29/06/2057	Fixed rate	1.800%	HARD BULLET
701059100	n/d	EUR	5,000,000	28/06/2017	28/06/2027	28/06/2027	Fixed rate	0.648%	HARD BULLET
DE000BHYOGH2	n/d	EUR	500,000,000	14/06/2017	23/10/2023	23/10/2023	Fixed rate	0.125%	HARD BULLET
701059000	n/d	EUR	5,000,000	08/06/2017	08/06/2057	08/06/2057	Fixed rate	1.800%	HARD BULLET
DE000BHYOMQ1	n/d	EUR	500,000,000	22/02/2017	21/02/2025	21/02/2025	Fixed rate	0.375%	HARD BULLET
DE000BHYOBF7	n/d	EUR	570,000,000	28/11/2016	29/10/2021	29/10/2021	Floating rate	EURIBOR03 + 3 bps	HARD BULLET
701058900	n/d	EUR	34,000,000	21/11/2016	21/11/2031	21/11/2031	Fixed rate	0.990%	HARD BULLET
701058800	n/d	EUR	5,000,000	05/10/2016	05/10/2046	05/10/2046	Fixed rate	1.050%	HARD BULLET
701058700	n/d	EUR	48,000,000	21/09/2016	21/09/2038	21/09/2038	Fixed rate	1.380%	HARD BULLET
701058600	n/d	EUR	5,000,000	22/08/2016	22/08/2046	22/08/2046	Fixed rate	1.472%	HARD BULLET
701058500	n/d	EUR	33,000,000	20/07/2016	20/07/2046	20/07/2046	Fixed rate	1.375%	HARD BULLET
DE000BHYOBE0	n/d	EUR	500,000,000	03/05/2016	03/05/2024	03/05/2024	Fixed rate	0.375%	HARD BULLET

© 2021 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 BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") 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 PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS 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 PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS 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 PUBLICATIONS 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 PUBLICATIONS 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.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS 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 rating process or in preparing its Publications.

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, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and 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 and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics 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 Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.