

Erste Group Bank AG - Mortgage Covered Bonds

Covered Bonds / Austria

Contacts Monitoring Client Service Desk	Rast, Martin - +44 (207) 772-8676 - Martin.Rast@moodys.com Albert Sanchez, Javier - +44 (207) 772-5515 - Javier.AlbertSanchez@moodys.com Monitor.CB@moodys.com London: +44 20 7772-5454, csdlondon@moodys.com	 Click on the icon to download data into Excel & to see Glossary of terms used Click here to access the covered bond programme webpage on moodys.com
--	--	---

Reporting as of: Data as provided to Moody's Investors Service (note 1)	30/06/2018 All amounts in EUR (unless otherwise specified)	For information on how to read this report, see the latest Moody's Global Covered Bond Monitoring Overview
--	---	---

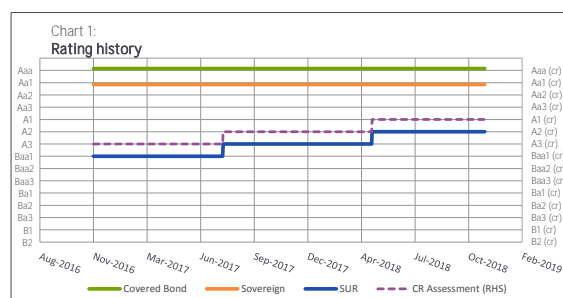
I. Programme Overview

Overview

Year of initial rating assignment:	2006
Total outstanding liabilities:	EUR 11,227,621,104
Total assets in the Cover Pool:	EUR 13,925,764,259
Issuer name / CR Assessment:	Erste Group Bank AG / A1(cr)
Group or parent name / CR Assessment:	n/a
Main collateral type:	Residential

Ratings

Covered bonds rating:	Aaa
Entity used in Moody's EL & TPI analysis:	Erste Group Bank AG
CB anchor:	CR Assessment + 1 notch
CR Assessment:	A1(cr)
SUR:	A2
Unsecured claim used for Moody's EL analysis:	Yes



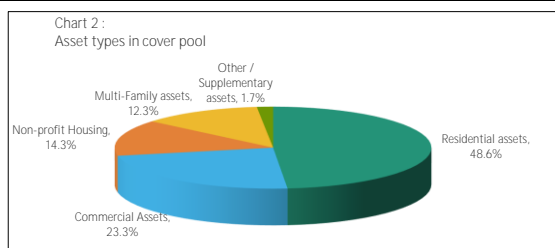
II. Value of the Cover Pool

Collateral quality

Collateral Score:	7.9%
Collateral Score excl. systemic risk:	n/a

Cover Pool losses

Collateral Risk (Collateral Score post-haircut):	5.3%	30%
Market Risk:	12.5%	70%
	17.8%	(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.

Current situation

Committed OC (NPV):	2.0%
Current OC (Unstressed NPV):	20.2%
OC consistent with current rating (note 4)	8.0%

Sensitivity scenario CB anchor

	OC consistent with current rating	
Scenario 1: CB anchor is lowered by	1 notch	12.0%

IV. Timely Payment Indicator & TPI Leeway

Timely Payment Indicator (TPI):	Probable
TPI Leeway:	3

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

CR Assessment	Probable
Aa1(cr)	Aaa
Aa2(cr)	Aaa
Aa3(cr)	Aaa
A1(cr)	Aaa
A2(cr)	Aaa
A3(cr)	Aaa
Baa1(cr)	Aaa
Baa2(cr)	Aa1

Legal framework

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

Timely payment

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

(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.

(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.

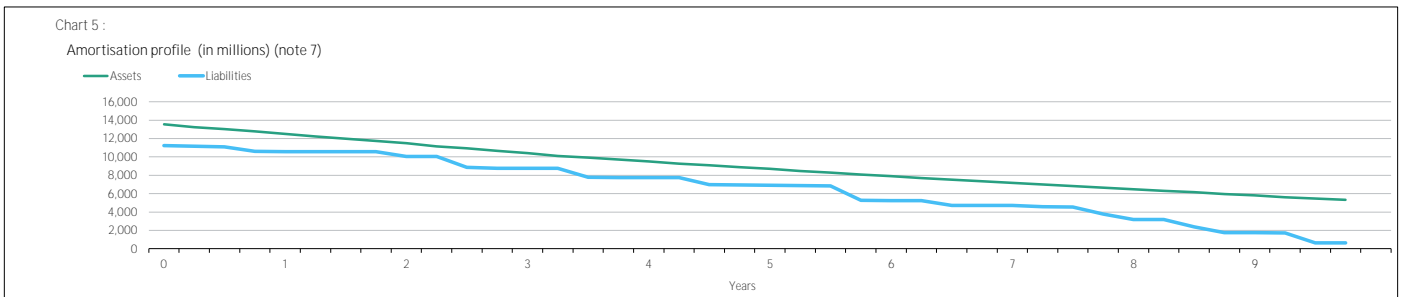
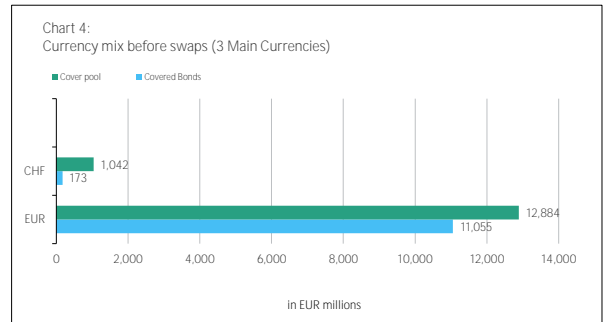
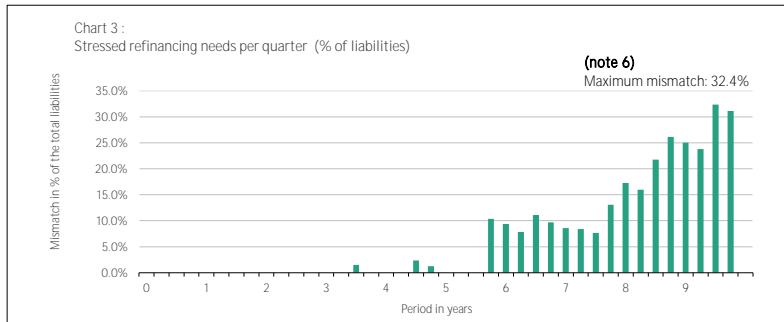
V. Asset Liability Profile

Interest Rate & Duration Mismatch (note 5)

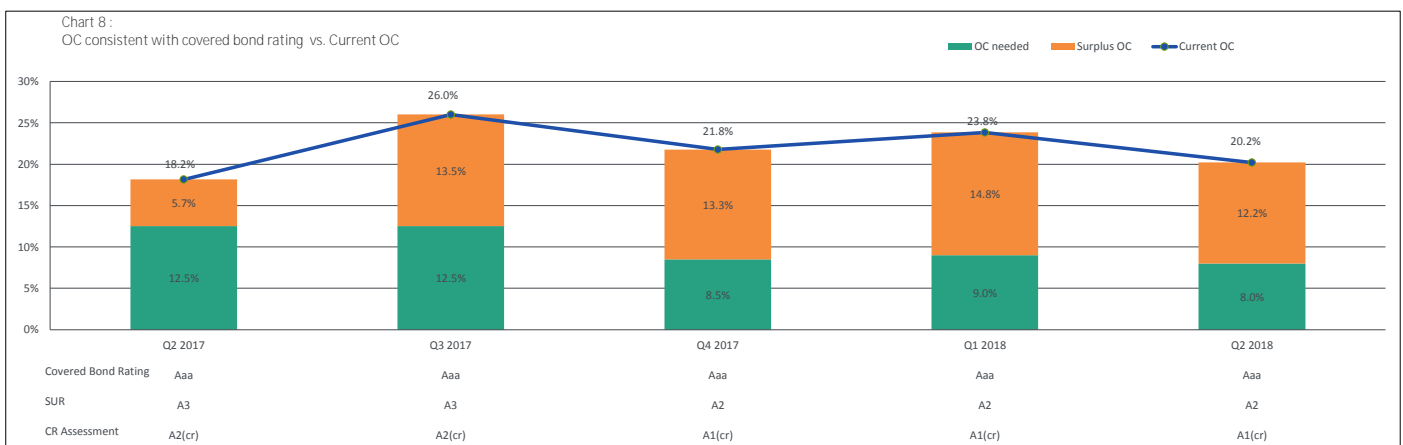
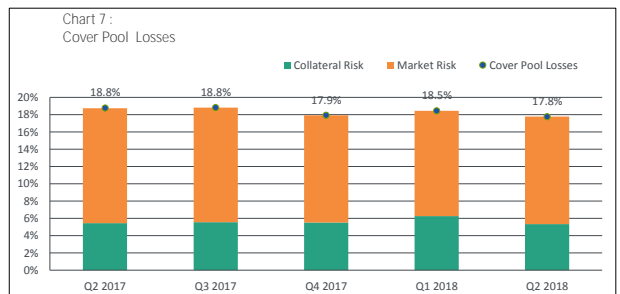
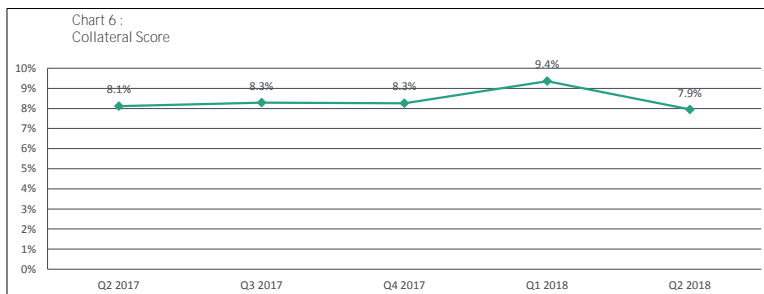
Fixed rate assets in the cover pool:	27.7%
Fixed rate covered bonds outstanding:	78.0%
WAL of outstanding covered bonds:	6.2 years
WAL of the cover pool:	8.9 years

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.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 no swap in place in Cover Pool, no prepayment and no further CB issuance.

VII. Cover Pool Information - Residential Assets EUR

Overview

Asset type:	Residential
Asset balance:	5,833,633,983
Average loan balance:	90,920
Number of loans:	64,162
Number of borrowers:	54,329
Number of properties:	85,178
WA remaining term (in months):	223
WA seasoning (in months):	62

Details on LTV

WA unindexed LTV (*)	n/d
WA Indexed LTV:	68.6%
Valuation type:	Lending Value
LTV threshold:	60.0%
Junior ranks:	0.0%
Prior ranks:	27.5%

Specific Loan and Borrower characteristics

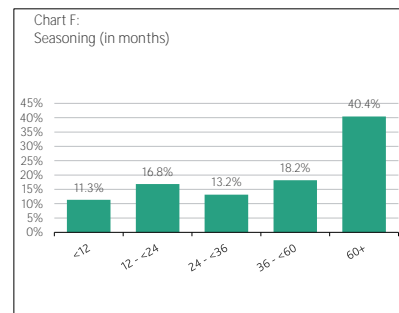
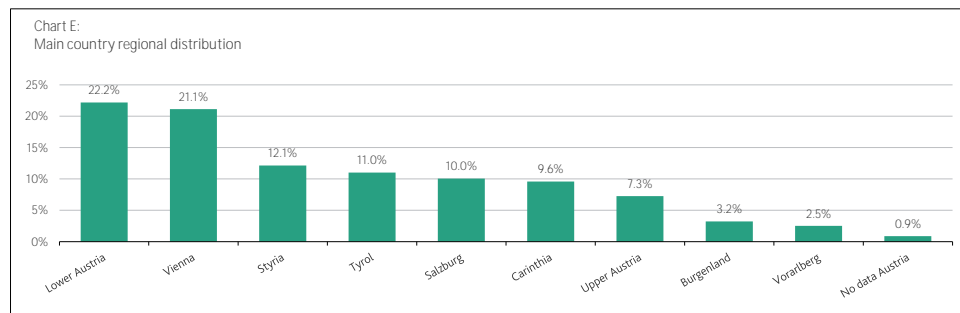
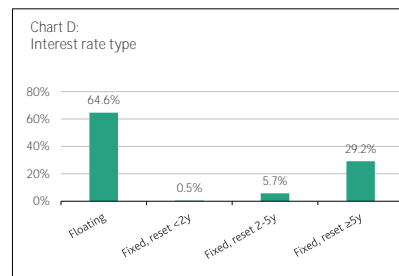
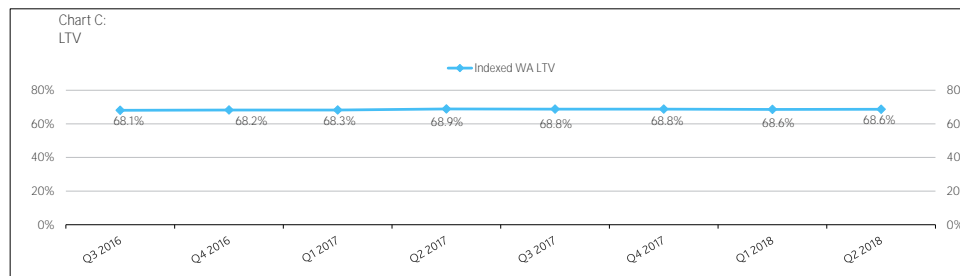
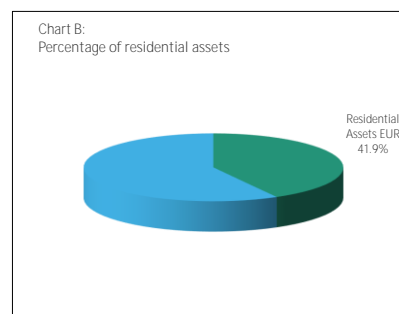
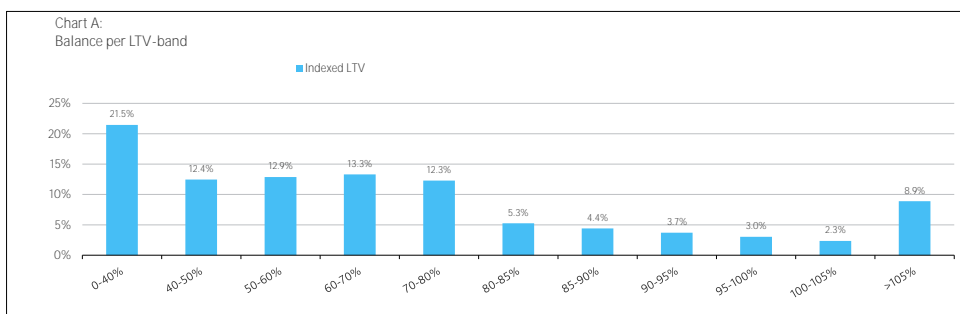
Loans with an external guarantee in addition to a mortgage:	n/a
Interest only Loans	4.2%
Loans for second homes / Vacation:	0.0%
Buy to let loans / Non owner occupied properties:	0.0%
Limited income verified:	0.0%
Adverse credit characteristics (**)	0.0%

Performance

Loans in arrears (≥ 2months - < 6months):	0.0%
Loans in arrears (≥ 6months - < 12months):	0.0%
Loans in arrears (≥ 12months):	0.0%
Loans in a foreclosure procedure:	0.0%

Multi-Family Properties

Loans to tenants of tenant-owned Housing Cooperatives:	n/a
Other type of Multi-Family loans (***)	n/a



(note *) By operation of the Austrian Mortgage Bank Act, only loan parts within the first 60% LTV threshold are eligible for the cover pool. This requirement ensures that the 60% LTV threshold takes any prior ranks into consideration for the relevant cover test calculation. Based on the total loan amount, i.e. including the loan parts above the 60% LTV threshold (internal junior ranks), the weighted-average LTV of the residential mortgage loans is 68.6%. Moody's has taken both these aspects into consideration in its analysis. Moody's notes that the weighted-average LTV would only be 48.9% if the LTV calculation disregarded any prior, equal or junior ranking loans, which are ineligible in terms of the relevant cover test calculations.
 (note **) Typically borrowers with a previous personal bankruptcy or borrowers with record of court claims against them at time of origination.
 (note ***) This "other" type refers to loans directly to Housing Cooperatives and to Landlords of Multi-Family properties (not included in Buy to Let).

VIII. Cover Pool Information - Residential Assets CHF

Overview

Asset type:	Residential
Asset balance:	927,521,902
Average loan balance:	102,116
Number of loans:	9,083
Number of borrowers:	7,828
Number of properties:	11,264
WA remaining term (in months):	137
WA seasoning (in months):	145

Details on LTV

WA unindexed LTV (*)	n/d
WA Indexed LTV:	70.0%
Valuation type:	Lending Value
LTV threshold:	60.0%
Junior ranks:	0.0%
Prior ranks:	39.6%

Specific Loan and Borrower characteristics

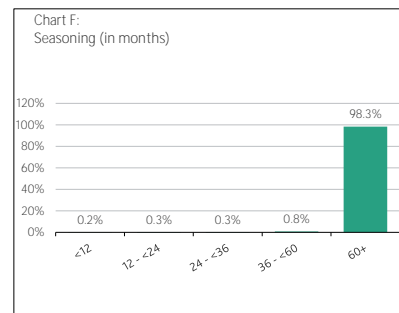
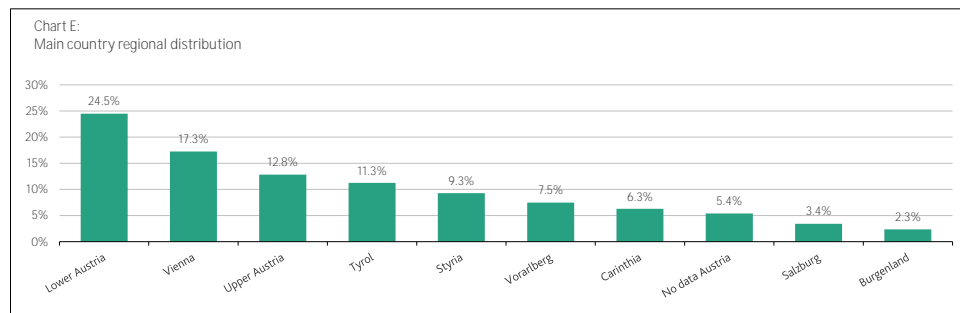
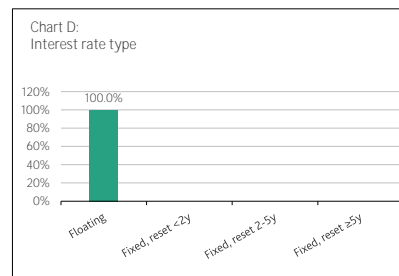
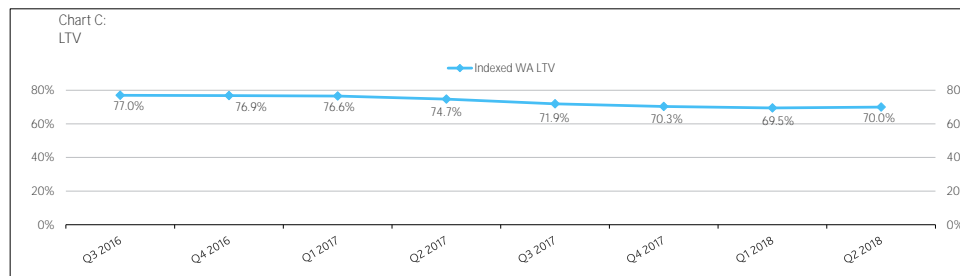
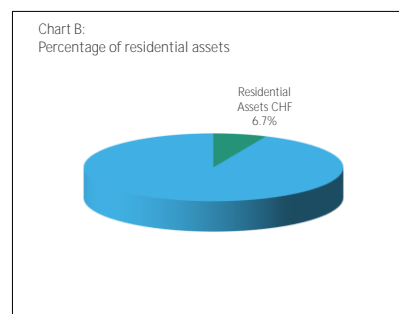
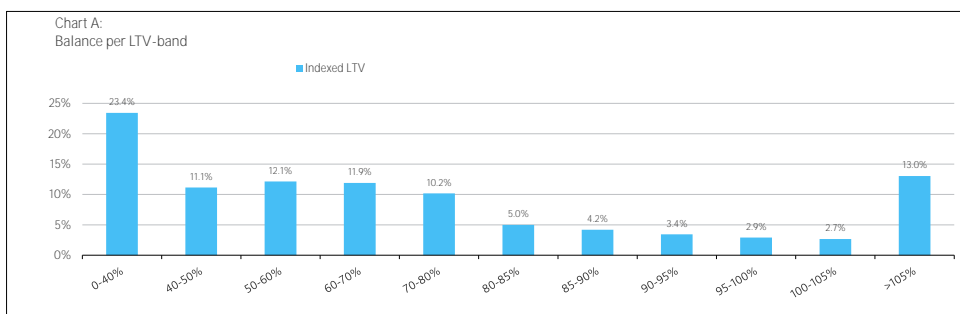
Loans with an external guarantee in addition to a mortgage:	n/a
Interest only Loans	84.0%
Loans for second homes / Vacation:	0.0%
Buy to let loans / Non owner occupied properties:	0.0%
Limited income verified:	0.0%
Adverse credit characteristics (**)	0.0%

Performance

Loans in arrears (≥ 2months - < 6months):	0.0%
Loans in arrears (≥ 6months - < 12months):	0.0%
Loans in arrears (≥ 12months):	0.0%
Loans in a foreclosure procedure:	0.0%

Multi-Family Properties

Loans to tenants of tenant-owned Housing Cooperatives:	n/a
Other type of Multi-Family loans (***)	n/a



(note *) By operation of the Austrian Mortgage Bank Act, only loan parts within the first 60% LTV threshold are eligible for the cover pool. This requirement ensures that the 60% LTV threshold takes any prior ranks into consideration for the relevant cover test calculation. Based on the total loan amount, i.e. including the loan parts above the 60% LTV threshold (internal junior ranks), the weighted-average LTV of the residential mortgage loans is 70.0%. Moody's has taken both these aspects into consideration in its analysis. Moody's notes that the weighted-average LTV would only be 54.9% if the LTV calculation disregarded any prior, equal or junior ranking loans, which are ineligible in terms of the relevant cover test calculations.
 (note **) Typically borrowers with a previous personal bankruptcy or borrowers with record of court claims against them at time of origination.
 (note ***) This "other" type refers to loans directly to Housing Cooperatives and to Landlords of Multi-Family properties (not included in Buy to Let).

IX. Cover Pool Information - Non-profit Housing

Overview

Asset type:	Non-profit Housing
Asset balance:	1,986,088,773
Average loan balance:	750,317
Number of loans:	2,647
Number of borrowers:	113
Number of properties:	3,009
WA remaining term (in months):	223
WA seasoning (in months):	94

Details on LTV

WA unindexed LTV (*)	n/d
WA Indexed LTV:	56.1%
Valuation type:	Lending Value
LTV threshold:	60.0%
Junior ranks:	0.0%
Prior ranks:	20.6%

Specific Loan and Borrower characteristics

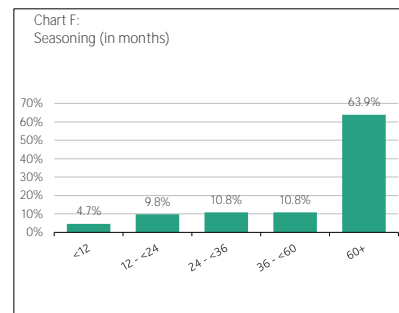
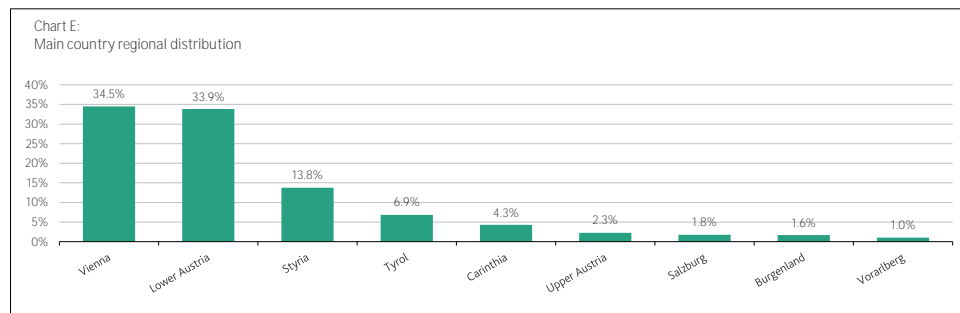
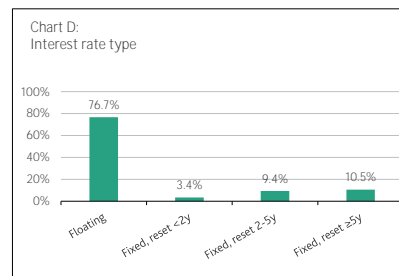
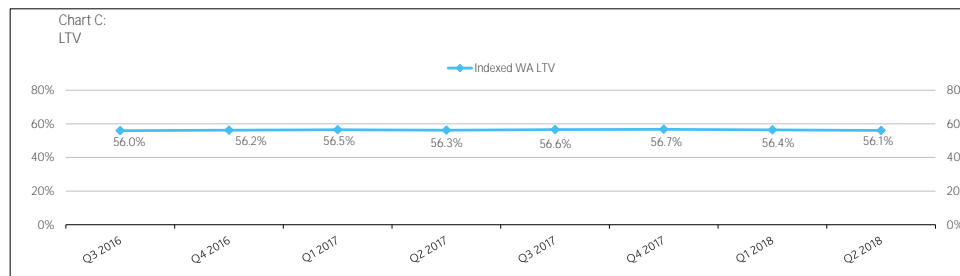
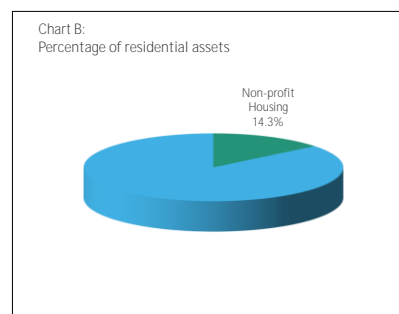
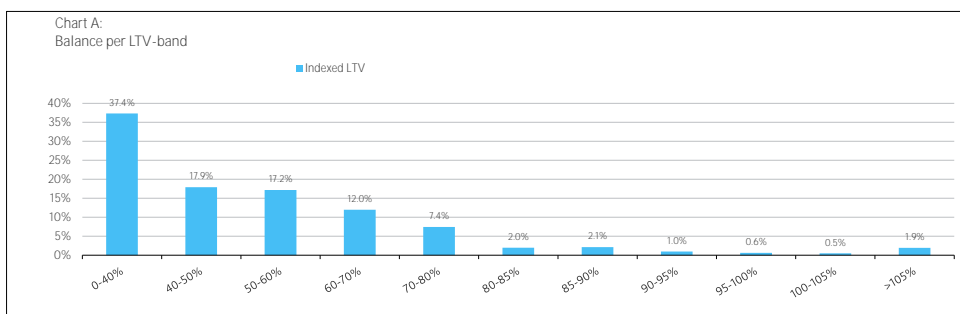
Loans with an external guarantee in addition to a mortgage:	n/a
Interest only Loans	3.1%
Loans for second homes / Vacation:	0.0%
Buy to let loans / Non owner occupied properties:	96.0%
Limited income verified:	0.0%
Adverse credit characteristics (**)	0.0%

Performance

Loans in arrears (≥ 2months - < 6months):	0.0%
Loans in arrears (≥ 6months - < 12months):	0.0%
Loans in arrears (≥ 12months):	0.0%
Loans in a foreclosure procedure:	0.0%

Multi-Family Properties

Loans to tenants of tenant-owned Housing Cooperatives:	n/a
Other type of Multi-Family loans (***)	n/a



(note *) By operation of the Austrian Mortgage Bank Act, only loan parts within the first 60% LTV threshold are eligible for the cover pool. This requirement ensures that the 60% LTV threshold takes any prior ranks into consideration for the relevant cover test calculation. Based on the total loan amount, i.e. including the loan parts above the 60% LTV threshold (internal junior ranks), the weighted-average LTV of the residential mortgage loans is 56.1%. Moody's has taken both these aspects into consideration in its analysis. Moody's notes that the weighted-average LTV would only be 32.0% if the LTV calculation disregarded any prior, equal or junior ranking loans, which are ineligible in terms of the relevant cover test calculations.
 (note **) Typically borrowers with a previous personal bankruptcy or borrowers with record of court claims against them at time of origination.
 (note ***) This "other" type refers to loans directly to Housing Cooperatives and to Landlords of Multi-Family properties (not included in Buy to Let).

X. Cover Pool Information - Commercial Assets

Overview

Asset type:	Commercial
Asset balance:	4,948,519,601
Average loan balance:	400,042
Number of loans / largest 10 loans:	12,370 / 7.4%
Number of borrowers / largest 10 borrowers:	7,825 / 12.7%
Number of properties / largest 10 properties:	23,538 / n/d
Number of tenants/largest 10 tenants as % of total current net rent:	n/d
Main countries:	Austria (95.3%), Others - EEA (4.7%)

Details on Loan Underwriting (pool average by loan amount)

Loan seasoning (in months):	49
Underwriter's Debt Service Coverage ratio (DSCR):	n/d
WA remaining term (in months):	144
Remaining tenancy term (in months):	n/d
Tenants rated at investment grade (as % of the pool):	n/d

By operation of the Austrian Mortgage Bank Act, only loan parts within the first 65% LTV threshold are eligible for the cover pool. This requirement ensures that the 65% LTV threshold takes any prior ranks into consideration for the relevant cover test calculation. Based on the total loan amount, i.e. including the loan parts above the 65% LTV threshold (internal junior ranks), the weighted-average LTV of the residential mortgage loans is 64.8%. Moody's has taken both these aspects into consideration in its analysis. Moody's notes that the weighted-average LTV would only be 41.9% if the LTV calculation disregarded any prior, equal or junior ranking loans, which are ineligible in terms of the relevant cover test calculations.

Specific Loan and Borrower characteristics

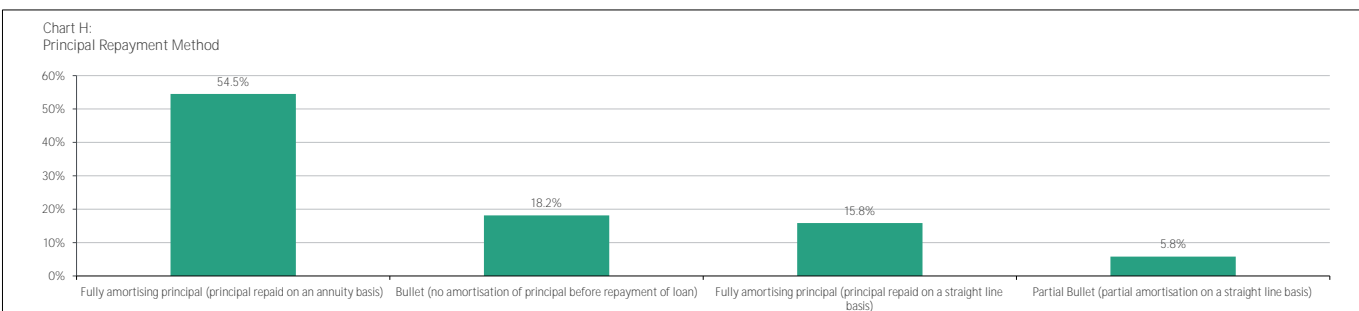
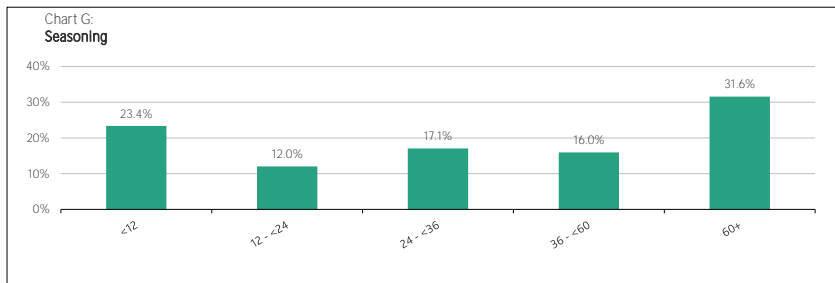
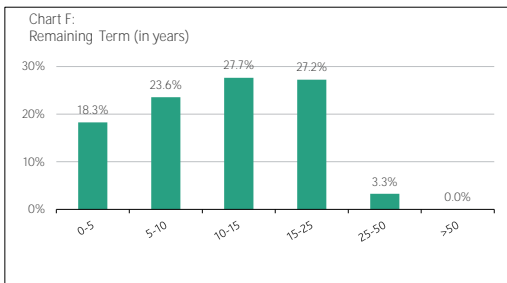
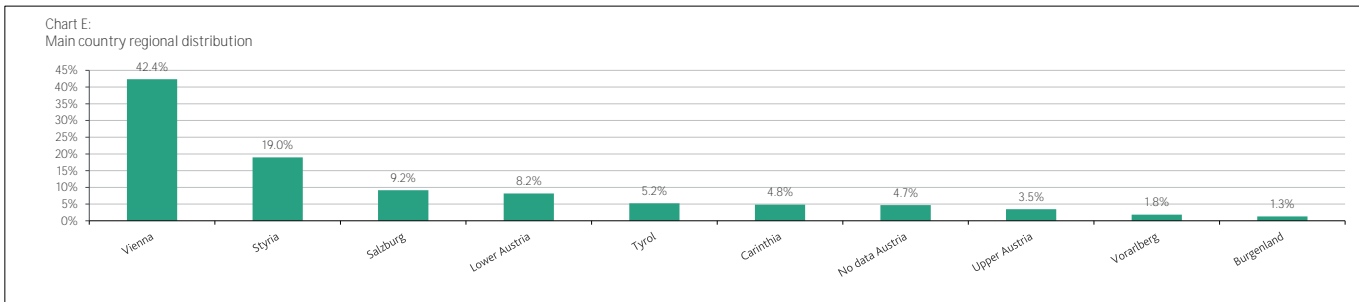
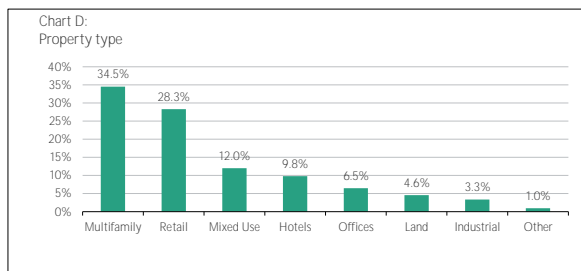
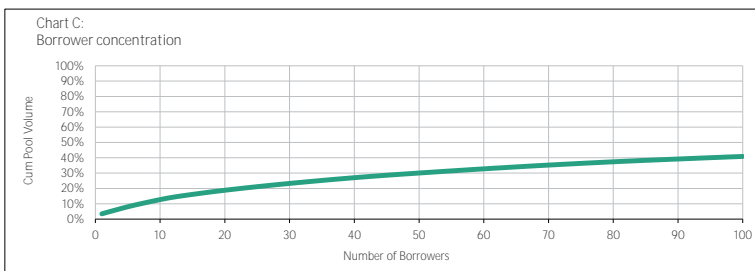
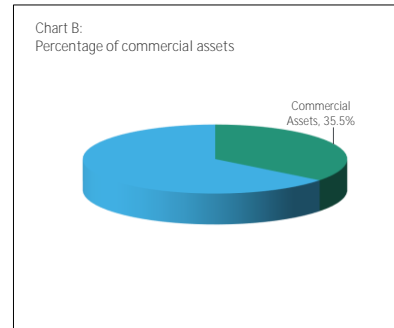
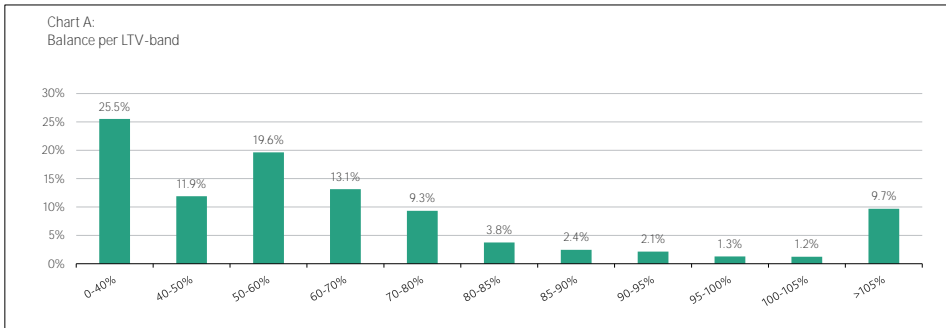
Bullet loans:	18.2%
Loans in non-domestic currency:	2.4%
Percentage of fixed rate loans:	22.3%
Percentage of loans exposed to interest rate risk:	91.6%
Percentage of loans with recourse to sponsor / initiator:	n/d
Financing of properties in construction:	5.3%

Performance

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

Details on LTV

Original LTV (property value at loan origination):	n/d
Current LTV (loan balance in cover pool, current property value):	41.9%
Current LTV (whole loan, including junior ranking loan parts):	64.8%
Valuation type:	Lending Value
LTV Threshold:	60.0%
Junior ranks:	n/d
Prior and Equal ranks:	21.8%



(note *) Based on original property valuation.

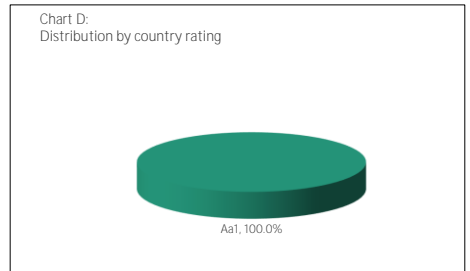
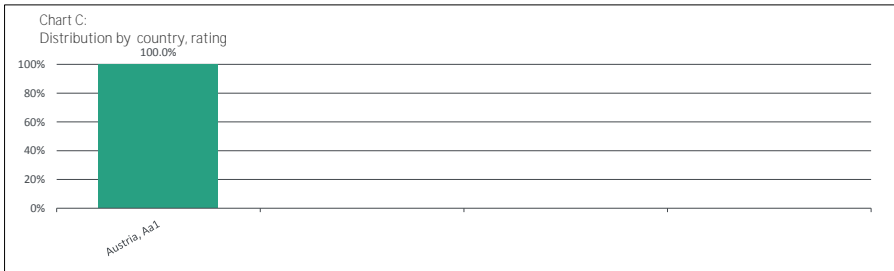
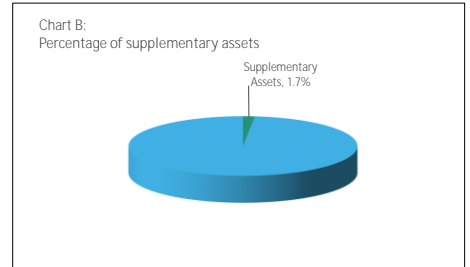
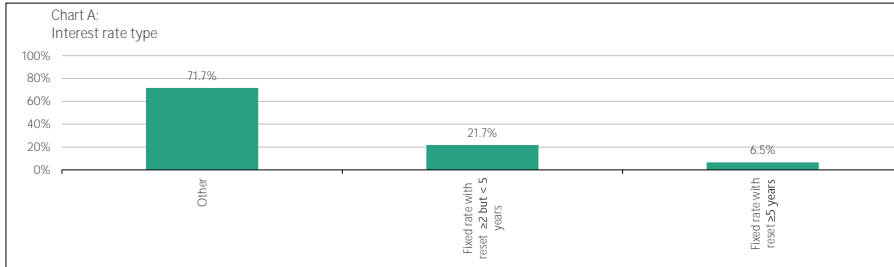
XI. Cover Pool Information - Supplementary Assets

Overview

Asset type:	Supplementary Assets
Asset balance:	230,000,000
WA remaining Term (in months):	13
Number of assets:	4
Number of borrowers:	2
Average assets size:	57,500,000
Average exposure to borrowers:	115,000,000

Specific Loan and Borrower characteristics

Repo eligible assets:	28.3%
Percentage of fixed rate assets:	28.3%
Percentage of bullet assets:	28.3%
Assets in non-domestic currency:	0.0%
Performance	
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%



XII. Liabilities Information: Last 50 Issuances

ISIN	Series Number	Currency	Outstanding Amount	Issuance Date	Expected Maturity	Legal Final Maturity	Interest Rate Type	Coupon	Principal Payment
XS1845161790	n/d	EUR	750,000,000	26/06/2018	26/06/2024	26/06/2025	Fixed rate	0.250%	BULLETT
QOXBDA032436	n/d	EUR	20,000,000	27/04/2018	27/04/2027	27/04/2027	Fixed rate	0.840%	BULLETT
XS1807495608	n/d	EUR	750,000,000	17/04/2018	17/04/2026	17/04/2027	Fixed rate	0.630%	BULLETT
XS1750974658	n/d	EUR	1,000,000,000	17/01/2018	17/01/2028	17/01/2028	Fixed rate	0.750%	BULLETT
XS1550203183	n/d	EUR	750,000,000	18/01/2017	18/01/2027	18/01/2027	Fixed rate	0.630%	BULLETT
QOXBDA032360	n/d	EUR	3,000,000	17/11/2016	17/11/2027	17/11/2027	Fixed rate	0.750%	BULLETT
AT0000A1LLC8	n/d	EUR	500,000,000	27/06/2016	27/09/2026	27/09/2026	Floating rate	m03EUR01 + 0 bps	BULLETT
AT0000A1JVS7	n/d	EUR	10,000,000	29/01/2016	29/01/2031	29/01/2031	Fixed rate	1.360%	BULLETT
XS1346557637	n/d	EUR	750,000,000	19/01/2016	19/01/2023	19/01/2023	Fixed rate	0.630%	BULLETT
QOXBDA032329	n/d	EUR	10,000,000	11/12/2015	11/12/2028	11/12/2028	Fixed rate	1.380%	BULLETT
XS1288539874	n/d	EUR	500,000,000	09/09/2015	09/09/2020	09/09/2020	Fixed rate	0.380%	BULLETT
QOXBDA032303	n/d	EUR	20,000,000	23/04/2015	22/03/2035	22/03/2035	Fixed rate	0.900%	BULLETT
XS1181448561	n/d	EUR	500,000,000	05/02/2015	05/02/2025	05/02/2025	Fixed rate	0.750%	BULLETT
AT0000A1AKL4	n/d	EUR	20,000,000	13/11/2014	13/05/2024	13/05/2024	Fixed rate	1.000%	BULLETT
QOXBDA028251	n/d	EUR	2,000,000	04/11/2014	04/11/2033	04/11/2033	Zero Bond	Zero	BULLETT
QOXBDA028269	n/d	EUR	5,000,000	04/11/2014	04/11/2033	04/11/2033	Zero Bond	Zero	BULLETT
AT0000A192G4	n/d	EUR	1,000,000	01/08/2014	01/08/2022	01/08/2022	Fixed rate	1.090%	BULLETT
AT0000A192I8	n/d	EUR	11,000,000	01/08/2014	01/08/2024	01/08/2024	Fixed rate	1.500%	BULLETT
AT0000A191C6	n/d	EUR	21,000,000	28/07/2014	28/07/2024	28/07/2024	Fixed rate	1.430%	BULLETT
AT0000A18XH4	n/d	EUR	2,500,000	17/07/2014	30/12/2029	30/12/2029	Fixed rate	2.150%	BULLETT
AT0000A17ZV2	n/d	EUR	500,000,000	21/05/2014	21/05/2019	21/05/2019	Floating rate	m03EUR01 + 0 bps	BULLETT
AT0000A17ZX8	n/d	EUR	800,000,000	21/05/2014	21/05/2024	21/05/2024	Floating rate	m03EUR01 + 0 bps	BULLETT
AT0000A17ZZ3	n/d	EUR	600,000,000	21/05/2014	21/05/2027	21/05/2027	Floating rate	m03EUR01 + 0 bps	BULLETT
AT0000A17A05	n/d	EUR	5,000,000	24/04/2014	25/04/2022	25/04/2022	Floating rate	+ 175 bps	BULLETT
AT0000A16TM6	n/d	EUR	17,500,000	25/03/2014	25/03/2024	25/03/2024	Floating rate	m03EUR01 + 20 bps	BULLETT
QOXBDA028210	n/d	EUR	25,000,000	29/01/2014	29/01/2029	29/01/2029	Fixed rate	2.530%	BULLETT
QOXBDA028186	n/d	EUR	5,000,000	16/01/2014	16/01/2034	16/01/2034	Fixed rate	3.070%	BULLETT
QOXBDA028194	n/d	EUR	5,000,000	16/01/2014	16/01/2034	16/01/2034	Fixed rate	2.890%	BULLETT
QOXBDA028202	n/d	EUR	15,000,000	16/01/2014	16/01/2034	16/01/2034	Fixed rate	2.890%	BULLETT
AT000B120340	n/d	EUR	35,000,000	19/12/2013	19/12/2023	19/12/2023	Fixed rate	2.130%	BULLETT
QOXBDA028160	n/d	EUR	15,000,000	13/11/2013	15/12/2028	15/12/2028	Fixed rate	3.000%	BULLETT
QOXBDA028145	n/d	EUR	10,000,000	12/11/2013	15/12/2033	15/12/2033	Fixed rate	3.010%	BULLETT
QOXBDA028012	n/d	EUR	20,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA028020	n/d	EUR	12,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA028038	n/d	EUR	5,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA028046	n/d	EUR	5,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA028053	n/d	EUR	5,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA028061	n/d	EUR	3,000,000	24/10/2013	24/10/2025	24/10/2025	Fixed rate	2.530%	BULLETT
QOXBDA027915	n/d	EUR	32,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027923	n/d	EUR	15,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027931	n/d	EUR	14,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027949	n/d	EUR	5,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027956	n/d	EUR	3,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027964	n/d	EUR	1,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027972	n/d	EUR	1,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027980	n/d	EUR	1,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
QOXBDA027998	n/d	EUR	1,000,000	14/10/2013	14/10/2025	14/10/2025	Fixed rate	2.520%	BULLETT
AT0000A12XE4	n/d	EUR	40,000,000	11/10/2013	11/10/2018	11/10/2018	Floating rate	m03EUR01 + 10 bps	BULLETT
QOXBDA028004	n/d	EUR	35,000,000	11/10/2013	11/10/2028	11/10/2028	Fixed rate	2.780%	BULLETT
QOXBDA021967	n/d	EUR	40,000,000	31/01/2013	31/01/2028	31/01/2028	Fixed rate	2.500%	BULLETT

© 2018 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 INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. 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. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S 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. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S 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 AND MOODY'S 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 OR MOODY'S 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.

CREDIT RATINGS AND MOODY'S 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 the Moody's 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 SUCH RATING OR 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 rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.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. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

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 rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000. MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.