

C. N. M. V.  
Dirección General de Mercados e Inversores  
C/ Edison 4  
Madrid

## **COMUNICACIÓN DE HECHO RELEVANTE**

### **MADRID RMBS I, FONDO DE TITULIZACIÓN DE ACTIVOS Actuaciones sobre las calificaciones de los bonos por parte de Moody's Investors Service.**

Titulización de Activos, Sociedad Gestora de Fondos de Titulización, S.A.  
comunica el siguiente Hecho Relevante:

- I. Respecto al fondo de referencia, adjuntamos nota de prensa publicada por Moody's Investors Service, con fecha 27 de julio de 2017, donde se llevan a cabo las siguientes actuaciones:

- Bono B, **de Baa1 (sf) a A3 (sf)**.

En Madrid, a 28 de julio de 2017

Ramón Pérez Hernández  
Consejero Delegado

**Rating Action: Moody's takes rating actions on multiple EMEA RMBS and ABS notes' ratings**

---

Global Credit Research - 27 Jul 2017

Madrid, July 27, 2017 -- Moody's Investors Service has today taken rating actions on asset-backed securities (ABS) and residential mortgage-backed securities (RMBS) transactions across Europe, the Middle East and Africa (EMEA), after the rating agency revised its approach to assessing counterparty risks in structured finance ([https://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_1038135](https://www.moodys.com/viewresearchdoc.aspx?docid=PBS_1038135)).

Specifically, Moody's has upgraded [211] notes, and [85] notes have been put on review for downgrade pending additional information, across [114] EMEA RMBS deals, and [12] EMEA ABS deals.

In addition, Moody's Investors Service has upgraded the national scale ratings (NSRs) of [12] notes in South Africa.

Moody's has consolidated and replaced five cross sector credit rating methodologies with one methodology describing Moody's approach to counterparty risks in structured finance.

The consolidation and revision of the structured finance rating methodology prompted today's rating actions on the ABS and RMBS notes. Please refer to the announcement of the consolidation to Moody's global approach to rating structured finance transactions released on 26th of July 2017. ([http://www.moodys.com/viewresearchdoc.aspx?docid=PR\\_368938](http://www.moodys.com/viewresearchdoc.aspx?docid=PR_368938)).

Please click on these links [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455426](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455426) , [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455511](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455511) for the List of Affected Credit Ratings and a detailed rationale. One link refers to the list of affected South African transactions and the other link to the list of affected transactions in other jurisdictions. Both lists are an integral part of this Press Release and identify each affected issuer.

#### RATINGS RATIONALE

Please click on these links [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455426](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455426) , [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455511](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455511) for the List of Affected Credit Ratings. This list is an integral part of this Press Release and provides, for each of the credit ratings covered, Moody's disclosures on the following items:

Principal Methodologies Used

National Scale Ratings

Key Rationale for Action

Constraining factors on the ratings

Today's rating actions reflect the updates to Moody's structured finance rating methodologies with respect to assessing (1) swap counterparty exposures, (2) financial disruption risks, (3) commingling risk, (4) account bank and investment risk and (5) deposit set-off risks.

The updates to the structured finance rating methodologies have mixed rating impact on EMEA ABS and RMBS transactions.

#### --- SWAP COUNTERPARTY EXPOSURES

Moody's has updated its cross sector methodologies with respect to assessing the exposures to swap counterparties.

In particular, Moody's changed the reference to the rating triggers level and the ratings of the swap counterparties (or guarantor). Moody's now uses the senior unsecured debt rating, instead of the counterparty

risk assessment (CR assessment) when the originator of the structured finance transaction is the same entity as the swap counterparty (or guarantor) and the swap counterparty's obligations are not likely to be fully collateralized.

Moody's also reduced the value of certain notching uplifts in connection with swap subject to margining requirements.

As part of the updated methodology, Moody's changed the sequence of the analytical steps for swap counterparty exposure. Moody's now adds the expected loss relating to the swap counterparty exposure before the application of ratings caps.

The revision of the methodologies with respect to the assessment of swap counterparty exposure has an overall limited rating impact on the EMEA ABS and RMBS transactions.

#### --FINANCIAL DISRUPTION RISKS

Moody's now uses the term financial disruption risk, instead of operational risk, when referring to the risk that one or more of the parties to a securitization will encounter financial distress and not be able to perform its duties as required.

Moody's now follows a three-step analysis to determine financial disruption risks: (1) assessment of the "durability" of the entity based on credit quality and other factors, (2) assessment of the "transferability" of servicing or other duties and (3) consideration of mitigants and rating caps when applicable.

Moody's revised some of its criteria for the analysis of financial disruption risks and raised the rating caps for high transferability cases, for instances where non-investment grade servicers can transfer their duties to other parties, but do not necessarily have strong mitigants in place. Moody's now gives more benefit to mitigants when the counterparties act in multiple roles, for instances where the servicer and cash manager are the same party, and back-up arrangements exist for one or both roles. Moody's also refined its approach for small and/or new sponsor-servicers.

The revision of the methodology with respect to financial disruption risk has an overall positive rating impact on the EMEA ABS and RMBS transactions.

#### --COMMINGLING RISK

Moody's clarified its global approach to commingling risk in three schematic steps. The rating agency now (1) assesses whether commingling risk exists based on the jurisdiction's legal and regulatory framework and other structural mitigants (2) determines the likely commingling exposure based on the servicer's credit quality and (3) incorporates an expected commingling loss into the credit analysis.

Moody's does not incorporate expected commingling loss if the risk is deemed immaterial such as cases where the servicer is rated at or above Baa2 and the exposure is limited to one month of lost collection.

The changes to the methodologies with respect to commingling risk have a limited rating impact on the EMEA ABS and RMBS transactions.

#### --ACCOUNT BANK AND INVESTMENT RISK

Moody's streamlined its approach to assessing account bank and temporary investment risk as part of the consolidated structured finance methodology.

Moody's now (1) assesses the uplift benefit for transfer trigger, (2) determines the risk exposure and (3) determines the rating cap to apply to the structured finance transactions.

Moody's does not proceed to step 2 and 3 if the account bank and temporary investment risk is mitigated or the adjusted rating (after uplift) is at least Aa3 for the account bank or A2 for investments. Moody's now considers transfer periods of up to 60 days to determine whether or not a transfer trigger is effective. Moody's now uses two types of rating caps in step 3 based on the size of the possible exposure to an account bank or an investment ("standard" versus "strong" exposure). The rating agency introduces a new rating cap table to determine the rating caps for securities if account bank or investment related risks are not sufficiently mitigated in step 3.

The changes of the methodologies with respect to account bank and investment risk have a mixed rating

impact, although mostly negative, on the EMEA ABS and RMBS transactions. For some transactions it is expected that further clarification on the application of eligible Investment and account bank criteria may mitigate the impact, these transactions will be placed on review for downgrade rather than downgraded directly.

The permitted investment criteria in South African transactions typically reference national scale rating (NSR). Following the latest recalibration of NSRs on 9 June 2017, these minimum NSRs now correspond to lower global scale ratings (GSRs).

#### -- DEPOSIT SET-OFF RISK

Moody's revised its cross sector methodologies with respect to assessing the deposit set-off risk.

Moody's distinguishes between deposit covered by an insurance system and uninsured deposit as part of its analysis of deposit set-off risk. Moody's no longer performs a separate analysis of deposit set-off risk for insured deposits, as the risk of deposit freeze (viewed as the risk of non-payment) is reflected in the local currency country risk ceiling for deposit.

As part of the updated methodology, Moody's does not factor any incremental loss into the analysis for granular pools.

Moody's now assumes that the exposure at risk is a constant percentage of the outstanding portfolio throughout the life of a transaction. Moody's now fixes the deposit run-off assumptions for corporate or corporate-like depositors at 25%.

The changes to the methodologies with respect to deposit set-off risk have a limited rating impact on the EMEA ABS and RMBS transactions.

Moody's National Scale Credit Ratings (NSRs) are intended as relative measures of creditworthiness among debt issues and issuers within a country, enabling market participants to better differentiate relative risks. NSRs differ from Moody's global scale credit ratings in that they are not globally comparable with the full universe of Moody's rated entities, but only with NSRs for other rated debt issues and issuers within the same country. NSRs are designated by a ".nn" country modifier signifying the relevant country, as in ".za" for South Africa. For further information on Moody's approach to national scale credit ratings, please refer to Moody's Credit rating Methodology published in May 2016 entitled "Mapping National Scale Ratings from Global Scale Ratings". While NSRs have no inherent absolute meaning in terms of default risk or expected loss, a historical probability of default consistent with a given NSR can be inferred from the GSR to which it maps back at that particular point in time. For information on the historical default rates associated with different global scale rating categories over different investment horizons, please see [https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC\\_1060333](https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1060333).

#### FACTORS THAT WOULD LEAD TO AN UPGRADE OR DOWNGRADE OF THE RATINGS:

Factors or circumstances that could lead to an upgrade of the ratings are (1) a lower probability of high-loss scenarios owing to an upgrade of the country ceiling; (2) performance of the underlying collateral that exceeds Moody's expectations; (3) deleveraging of the capital structure; and (4) improvements in the credit quality of the transaction counterparties.

Factors or circumstances that could lead to a downgrade of the ratings are (1) an increased probability of high-loss scenarios owing to a downgrade of the country ceiling; (2) performance of the underlying collateral that does not meet Moody's expectations; (3) deterioration in the notes' available credit enhancement; and (4) deterioration in the credit quality of the transaction counterparties.

#### FACTORS THAT WOULD LEAD TO AN UPGRADE OR DOWNGRADE OF THE NSRs:

The NSRs would face upward or downward pressure if their corresponding GSRs are upgraded or downgraded, unless this is in conjunction with a sovereign rating action that results in another recalibration of the South African national scale with an offsetting impact on NSRs. In addition, the NSRs may be repositioned upwards (downwards) if South Africa's sovereign is downgraded (upgraded) and the map is revised accordingly, but the corresponding GSRs have not changed as a result of the sovereign action. Because of the higher granularity of national scales, NSRs may also face pressure due to changes in creditworthiness that are not sufficient to cause a change in the corresponding GSR, measured using the same methodologies used to determine the GSR.

## REGULATORY DISCLOSURES

Please click on this link [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455426](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455426) , [http://www.moodys.com/viewresearchdoc.aspx?docid=PBS\\_SF455511](http://www.moodys.com/viewresearchdoc.aspx?docid=PBS_SF455511) for the List of Affected Credit Ratings. This list is an integral part of this Press Release and provides, for each of the credit ratings covered, Moody's disclosures on the following items:

- Lead analyst
- Person Approving the Credit Rating
- Releasing office

For further specification of Moody's key rating assumptions and sensitivity analysis, see the sections Methodology Assumptions and Sensitivity to Assumptions of the disclosure form.

The analysis relies on an assessment of collateral characteristics to determine the collateral loss distribution, that is, the function that correlates to an assumption about the likelihood of occurrence to each level of possible losses in the collateral. As a second step, Moody's evaluates each possible collateral loss scenario using a model that replicates the relevant structural features to derive payments and therefore the ultimate potential losses for each rated instrument. The loss a rated instrument incurs in each collateral loss scenario, weighted by assumptions about the likelihood of events in that scenario occurring, results in the expected loss of the rated instrument.

Moody's quantitative analysis entails an evaluation of scenarios that stress factors contributing to sensitivity of ratings and take into account the likelihood of severe collateral losses or impaired cash flows. Moody's weights the impact on the rated instruments based on its assumptions of the likelihood of the events in such scenarios occurring.

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on [www.moodys.com](http://www.moodys.com).

For any affected securities or rated entities receiving direct credit support from the primary entity(ies) of this credit rating action, and whose ratings may change as a result of this credit rating action, the associated regulatory disclosures will be those of the guarantor entity. Exceptions to this approach exist for the following disclosures, if applicable to jurisdiction: Ancillary Services, Disclosure to rated entity, Disclosure from rated entity.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

The below contact information is provided for information purposes only. Please see the ratings tab of the issuer page at [www.moodys.com](http://www.moodys.com), for each of the ratings covered, Moody's disclosures on the lead rating analyst and the Moody's legal entity that has issued the ratings.

The relevant office for each credit rating is identified in "Debt/deal box" on the Ratings tab in the Debt/Deal List section of each issuer/entity page of the website.

Please see [www.moodys.com](http://www.moodys.com) for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on [www.moodys.com](http://www.moodys.com) for additional regulatory disclosures for each credit rating.

Maria Turbica Manrique  
Vice President - Senior Analyst  
Structured Finance Group  
Moody's Investors Service Espana, S.A.  
Calle Principe de Vergara, 131, 6 Planta  
Madrid 28002  
Spain  
JOURNALISTS: 44 20 7772 5456  
Client Service: 44 20 7772 5454

Michelangelo Margaria  
Senior Vice President/Manager  
Structured Finance Group  
JOURNALISTS: 44 20 7772 5456  
Client Service: 44 20 7772 5454

Releasing Office:  
Moody's Investors Service Espana, S.A.  
Calle Principe de Vergara, 131, 6 Planta  
Madrid 28002  
Spain  
JOURNALISTS: 44 20 7772 5456  
Client Service: 44 20 7772 5454

**MOODY'S**  
INVESTORS SERVICE

© 2017 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.

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.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. 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.





© 2017 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.

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](http://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.