

SECTOR IN-DEPTH

22 January 2019



Contacts

Anastasija Johnson +1.212.553.1723 VP-Senior Analyst anastasija.johnson@moodys.com

Brian Oak +1.212.553.2946
MD-Corporate Finance
brian.oak@moodys.com

Tom Marshella +1.212.553.4668 MD-US and Amer Corporate Fin

tom.marshella@moodys.com

Sean Elliott +1.212.553.8843

Associate Analyst

Associate Analyst sean.elliott@moodys.com

Tom MacLean +1.212.553.9578

Associate Analyst
tom.maclean@moodys.com

Felipe Strieder +1.212.553.4724

Associate Analyst

felipe.strieder@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
Asia Pacific 852-3551-3077
Japan 81-3-5408-4100
EMEA 44-20-7772-5454

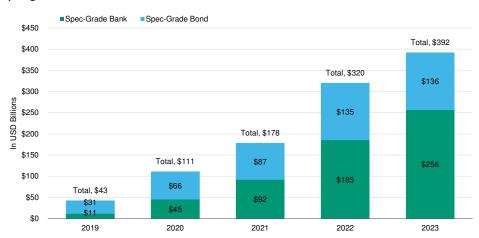
Speculative-Grade Corporates - US

Refunding Risk 2019-23: Spec-grade maturities again top \$1 trillion amid weakening market conditions

Five-year speculative-grade refunding needs rise above \$1 trillion, near record. US speculative-grade companies have \$1.044 trillion of debt maturing over the 2019-2023 period, up from \$988 billion last year that covered 2018-2022 maturities. Total maturities are up 6% and slightly below the record \$1.063 trillion set in the 2017 study. Both speculative-grade bank and bond maturities rose, with the bank maturities expanding faster at 9%, to \$589 billion, and bonds climbing 2%, to \$455 billion.

Exhibit 1

Spec-grade maturities exceed \$1 trillion



Source: Moody's Investors Service

THIS REPORT WAS REPUBLISHED ON JANUARY 23, 2019 TO ADD A LEGEND TO EXHIBIT 1

» Maturities rise as issuance declines, increasing refinancing risk. US speculative-grade bond issuance fell 43% in 2018 to \$173 billion, with December being the first month with no high-yield bonds sold since November 2008, according to Dealogic. As a result, bond refinancing risk — as measured by our Three-Year Refunding Indicator for December 2018 — is the highest since May 2009. The Indicator does not capture how some companies that typically issue bonds have shifted to the loan market instead. Nevertheless, a combination of lower issuance, heavy maturities, climbing interest rates and widening spreads points to a more-challenging refinancing environment.

- » Most debt matures in 2022-2023 and near-term needs are low. This is in line with historical trends, even though bond refinancing needs shifted forward. Approximately 68% of the five-year maturities, or \$713 billion, mature in 2022 and 2023, similar to last year, peaking in 2023 at \$392 billion. Bank maturities are back-end loaded as well, peaking in 2023 at \$256 billion, but bond refinancing needs shifted forward marginally. Bond maturities are roughly equal in 2022 and 2023, at \$135 billion and \$136 billion respectively, which differs from last year when the largest maturity was in the last year of our five-year window.
- » Rating quality of bank debt has declined, but bond quality is higher. Almost half of bank facilities maturing over the next five years, or \$289 billion, are in the single-B rating category based on instrument rating, up from 45% last year and the highest share since we began tracking the data. Consequently, Ba-rated bank facilities have declined to 43% of the total, or \$256 billion. The share of Ba-rated bank facilities has steadily fallen since 2013. By contrast, bond ratings are shifting higher. Of five-year bond maturities, 41% or \$186 billion are rated in the Ba category, up from 37% last year. This is the highest absolute amount and percentage, historically. B-rated five-year bond maturities are 38% of the total, about the same as last year, and Caa or lower rated maturities fell to 21% from 26%.
- » The pull-forward effect increases maturities through 2021 for bank credit facilities by 74% to \$258 billion, from \$148 billion. Pull-forward occurs when companies concurrently refinance several debt maturities in a single bank credit agreement at the time the first instrument comes due.
- » Companies at risk of falling to speculative grade from investment grade only have \$13 billion of bonds maturing through 2023. However, their total outstanding debt is much larger, at \$102 billion, and could drive an increase in longer-term speculative grade refinancing needs. Potential crossovers include Ford Motor Co., Newell Brands, Motorola, Buckeye Partners, Symantec, and Block Financial.
- » The Telecommunication, Media and Technology sector continues to carry the highest debt burden. The sector accounts for 27%, or \$281 billion, of debt. Telecommunications, one of two US industries with a negative outlook, has \$68 billion of debt due over the next five years. However, there are more debt maturities for industries with positive outlooks compared to last year's study. Among industries with positive outlooks, retail has the most debt outstanding at \$70 billion.

About this report

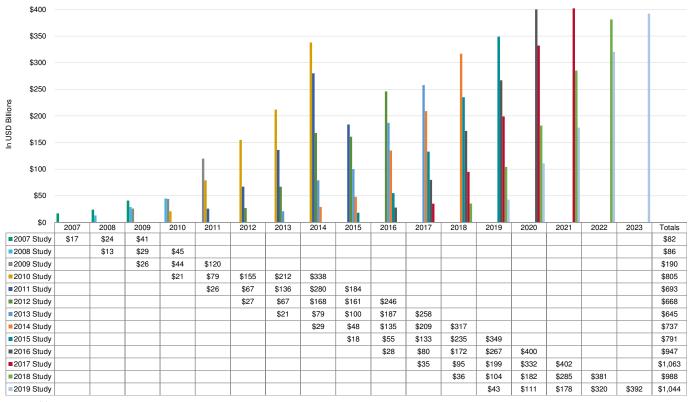
This is our 21st annual report on refunding risks and needs for issuers and investors in the US corporate high-yield bond, convertible-bond, and leveraged-loan markets. This study includes debt securities rated by Moody's corporate finance group, denominated in US dollars and issued by US-based companies. The information is sourced as of November 2018. There may be slight rounding differences between the charts and text. This study includes 2,355 rated speculative-grade non-financial instruments that mature during 2019-23. This report includes the full face amount of the revolver, not just the amount drawn.

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.moodys.com for the most updated credit rating action information and rating history.

Over \$1 trillion of speculative-grade debt maturing through 2023 amid worsening refinancing conditions

US speculative-grade companies have \$1.044 trillion of debt maturing over the 2019-2023 period, compared with \$988 billion last year covering 2018-2022 maturities. Total maturities are up 6% and are slightly below the record \$1.063 trillion set in the 2017 study (see Exhibit 2).

Exhibit 2
Refunding needs for 2019-2023 near record

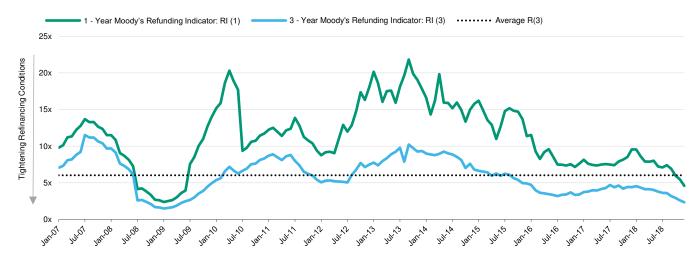


Source: Moody's Investors Service

Both speculative-grade bank and bond maturities rose, reflecting debt due in 2023 rolling into our five-year window. Bank maturities expanded faster posting a 9% increase, to \$589 billion, while bonds climbed slower at 2% to a record \$455 billion. Bank maturities continue to represent a higher proportion of maturing debt, 56%, versus 44% for bonds. The share of bank facilities increased marginally compared to last year, but is down from a high of 61% of the total in our 2016 study.

The rise in US speculative-grade maturities to over \$1 trillion follows a drop in bond and bank issuance in 2018, increasing refinancing risk. US speculative-grade bond issuance fell 43% in 2018 to \$173 billion, the lowest level since 2009. No high-yield bonds sold in the month of December, the first barren month since November 2008, according to Dealogic. As a result, bond refinancing risk — as measured by our Three-Year Refunding Indicator for December 2018 — is the highest since May 2009. The indicator, which measures the market's ability to absorb upcoming bond maturities though new bond issuance, ended 2018 at 2.3 times, down 47% year-on-year and 61% below its long-term average of 6 times.

Exhibit 3
Three-year Refunding Indicator shows greatest risk since May 2009



Source: Moody's Investors Service

The Indicator does not capture how some companies that typically issue bonds are shifting to the loan market instead. While the leveraged loan issuance declined 11% to \$1.3 trillion in 2018, it was still the second-highest on record, according to Dealogic. Nevertheless, a combination of lower high-yield bond issuance, record bond maturities, rising interest rates and widening spreads points to a more-challenging refinancing environment for issuers.

In December, we raised our US default forecast by 0.6% to 3.4% in 2019, reflecting recent widening of high-yield spreads, but the forecast rate is still low historically. The trailing 12-month US speculative-grade default rate finished the fourth quarter at 2.8%, down from 3.3% at the end of the previous quarter and 3.7% at the end of 2017.

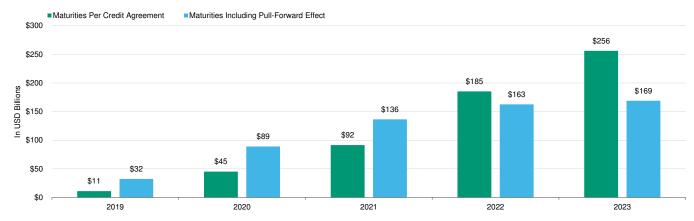
While a rebound in high-yield issuance in 2019 would improve refinancing conditions, investors and companies face more difficult market conditions in 2019 as a result of lower global economic growth expectations, tighter credit conditions, and rising borrowing costs. If low high-yield bond issuance continues, refunding risk will increase and speculative-grade bond maturities could be pulled forward. We continue to expect more volatility in the high-yield market in light of uncertainty regarding: whether the US Federal Reserve will further increase rates, the ongoing US-China trade tensions, and other geopolitical issues such as Brexit.

Near-term refinancing needs low, but can increase due to pull-forward effect

In line with historical trends, most debt matures at the end of our five-year window, though bond refinancing needs shifted forward somewhat and debt that matures in the first year of our report has also increased. About 68% of debt within our five-year window, or \$713 billion, matures in 2022 and 2023, peaking in 2023 at \$392 billion. Bank maturities are back-end loaded, peaking in 2023 at \$256 billion, but bond refinancing needs shifted marginally forward. Bond maturities are roughly equal in 2022 and 2023, at \$135 billion and \$136 billion respectively, which differs from last year's study when they peaked in the final year of the five-year window.

Near-term spec-grade refinancing risk is low, with companies having to refinance just \$43 billion of debt in 2019. That is only 4% of the total, but the highest absolute amount we have seen in the first year of our five-year window. Companies have to refinance \$111 billion in 2020 (11% of the total), and \$178 billion in 2021 (17%). However, companies typically begin to address maturities early. This trend is amplified by a pull-forward effect — when companies concurrently refinance several debt maturities in a single bank-credit agreement at the time the first instrument comes due. We estimate the pull-forward effect could increase near-term bank credit maturities by 74% to \$258 billion through 2021, from \$148 billion (see Exhibit 4).

Exhibit 4
Pull-forward effect increases 2019-2021 maturities of bank facilities



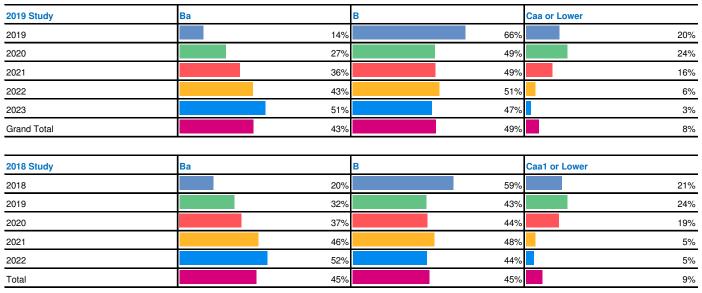
Source: Moody's Investors Service

Rating quality of bank debt declined, but bond quality is higher

Almost half of bank loan facilities maturing over the next five years, or \$289 billion, are in the single-B rating category based on instrument ratings, up from 45% last year and the highest share since we began tracking the data. Consequently, higher rated Ba-rated bank facilities have declined to 43% of the total, or \$256 billion. The share of Ba-rated bank facilities has fallen steadily since our 2013 study, in part due to the decline of subordinated debt in the capital structure and an increase in B-rated speculative issuers with loan-only capital structures. However, the share of the riskiest bank debt, rated Caa and lower, fell to just 8% of five-year maturities, or \$45 billion. While Ba- and B-rated bank debt maturities are back-ended, the bulk of debt rated Caa and below matures in 2020, 2021 and 2022, pointing to higher near-term refinancing risk for these instruments (see Exhibit 5.)

Exhibit 5

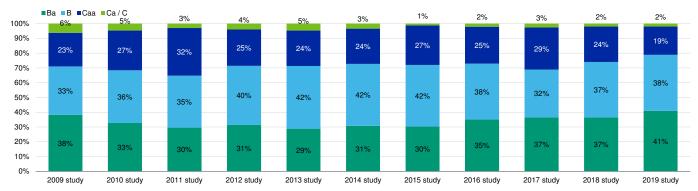
More near-term maturities for loans rated Caa1 and lower



Data based on instrument ratings Source: Moody's Investors Service

By contrast, bond ratings are shifting higher as more Ba-rated issuers included high-yield bonds in their capital structures and due to the inclusion of debt from fallen angels, such as, Xerox Corp. (Ba1 negative), which was downgraded to speculative grade from investment grade in December 2018. Of the five-year bond maturities, 41% or \$186 billion are rated in the Ba category, up from 37% last year. This is the highest absolute amount and percentage, historically. Ba-rated bonds dominate near-term maturities, pointing to lower near-term refinancing risk for bonds compared to bank debt. B-rated five-year bond maturities are 38% of the total, roughly the same as last year, and Caa or lower rated maturities fell to 21%, from 26%. The bulk of bonds rated Caa or below matures in 2022 and 2023, peaking in 2022.

Exhibit 6
Spec-grade bond rating quality gradually improving



Data based on instrument ratings Source: Moody's Investors Service

The share of Ba-rated bonds could increase if some of the investment-grade companies in the Crossover Zone were to fall to speculative-grade. Companies rated Baa3 with negative outlooks or under review for downgrade only have \$13 billion of bonds maturing in the next five years. However, total outstanding debt for US potential fallen angels was estimated at a record \$102 billion or roughly 8 percent of outstanding US corporate high-yield bonds, according to our Crossover Zone report, which could increase longer-term speculative-grade refinancing needs. Current potential crossovers with maturities in the next five years include Ford Motor Company (Baa3 negative), Newell Brands (Baa3 negative), Motorola Solutions, Inc. (Baa3 negative), Buckeye Partners, L.P. (Baa3 negative), Symantec (Baa3 RUR-Down), and Block Financial LLC (Baa3 negative).

Economy still solid, but moderating

The current US economic expansion will continue in 2019, to become the longest on record, according to Moody's Macroeconomic Outlook, which forecasts US GDP growth at 2.3% for 2019, moderating from an estimated 2.9% for 2018. The robust economic environment in the US is supported by strong employment and solid consumer confidence.

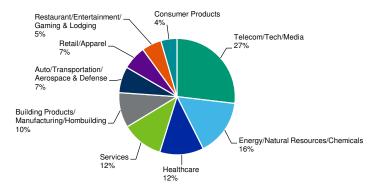
However, the economic performance has prompted the Federal Reserve to raise interest rates, which will drive up borrowing costs further in 2019. Speculative-grade companies with lower ratings and less liquidity will face greater risks in a year when we forecast wider spreads and higher market volatility.

There are also risk factors to the solid economic picture, including the withdrawal of accommodative monetary policies; trade tensions, particularly between the US and China; and reduced global growth expectations.

Telecom/Tech/Media issuers dominate maturities, US Telecom sector faces negative outlook

The Telecommunication/Technology/Media sector accounts for 27% or \$281 billion of debt, followed by companies in Energy/Natural Resources/Chemicals industries with \$164 billion and Healthcare with \$128 billion. These are the sectors that have long dominated speculative-grade maturities.

Exhibit 7
Spec-grade debt maturities by broad industry group

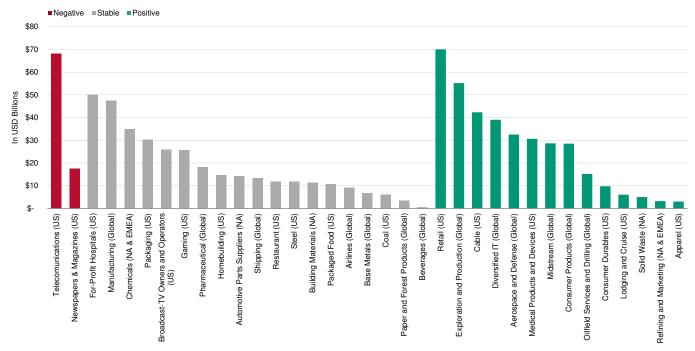


Source: Moody's Investors Service

The US Telecommunications sector is one of two industries with a negative outlook and has \$68 billion of debt due over the next five years. The other is Newspapers and Magazines with \$18 billion. However, there are more debt maturities in industries with positive outlook for this year's study compared to last year. Among industries with positive outlooks, Retail has the most debt at \$70 billion (see Exhibit 8.)

Exhibit 8

Vast majority of debt is in industries with stable or positive outlooks



Source: Moody's Investors Service

Moody's related publications

- » Refunding Risk and Needs 2018-2022: Speculative-Grade Corporations US
- » Refunding Risk and Needs 2018-2022: Investment-Grade Corporates US
- » Refunding Risk and Needs 2018-2022: Non-Financial Corporations Canada
- » US Leveraged Finance: Refunding Indicator Three-year refunding risk highest since 2009
- » Moody's Refunding Indicator: Frequently Asked Questions
- » Crossover Zone Potential rising stars hit 5-year high, potential fallen angels debt load rises
- » December 2018 Default Report

© 2019 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 OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. 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 ON THE SUBJECTIONS ON THE SUBJECTIONS ON THE SUBJECATIONS OF PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS AND MOODY'S PUBLICATIONS COMMENT ON THE SUBJECT AND INDESTMENT 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 CREDIT 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 ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. 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.moodys.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 rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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

REPORT NUMBER

1157618

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

