

MOODY'S

INVESTORS SERVICE

CREDIT OPINION

2 July 2020

Update

 Rate this Research

RATINGS

IDEMIA Group

Domicile	Paris, France
Long Term Rating	B3
Type	LT Corporate Family Ratings
Outlook	Negative

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Fabrizio Marchesi +33.1.5330.1024
VP-Senior Analyst
fabrizio.marchesi@moodys.com

Jeanine Arnold +33.1.5330.1062
Associate Managing Director
jeanine.arnold@moodys.com

Aurore Haas +44.20.7772.8630
Associate Analyst
aurore.haas@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

IDEMIA Group

Update to credit analysis

Summary

[IDEMIA Group's](#) (IDEMIA or the company) B3 corporate family rating (CFR) takes into account the improvement in revenue and EBITDA trends witnessed over the course of 2019, but also the need for further growth, reduction in non-recurring items and improvement in Moody's-adjusted free cash flow (FCF) going forward.

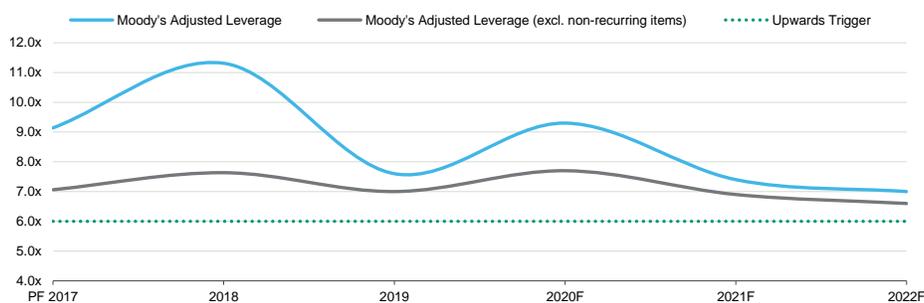
The company's CFR is supported by its strong market share in key segments; high barriers to entry in various business lines, where counterparties such as financial institutions and governments require a track record of delivery and performance; good geographic and customer diversification; and adequate liquidity, which is composed of a €305 million cash balance and a €95 million undrawn revolving credit facility (RCF), both as of 31 March 2020.

Concurrently, the rating also reflects relatively limited recurring revenue and a lack of visibility in certain business lines, given the unevenness of new contracts and renewal cycles; technological risk; IDEMIA's high Moody's-adjusted (gross) leverage of 7.6x as of 31 December 2019 and limited deleveraging since the acquisition of Morpho in 2017; and negative Moody's-adjusted FCF.

We believe that IDEMIA will experience a temporary set-back related to the coronavirus outbreak in 2020, despite the expected resilience of several product lines, but forecast the company will be in a position to build on the financial momentum generated in 2019 from 2021 onwards.

Exhibit 1

IDEMIA's Moody's-adjusted leverage ratio improved in 2019, but is likely to remain high



Source: Moody's Investors Service

Credit strengths

- » Strong market position in key segments such as payment cards, identity and security solutions
- » High barriers to entry given the need for technological know-how and a track record of delivery and performance
- » Good customer and geographic diversification

Credit challenges

- » Relatively limited recurring revenue and lack of visibility in certain business lines, given the unevenness of new contracts and renewal cycles
- » Mixed financial track record, characterized by weak performance over 2017 and 2018, and execution risks surrounding the ability to sustain the improvement seen in 2019
- » High Moody's-adjusted leverage of 7.6x and weak, albeit improving, free cash flow

Rating outlook

The negative outlook reflects the execution risk associated with future revenue and EBITDA growth, an expected reduction in non-recurring items on a sustained basis and the company's deleveraging and cash flow generation potential in general. We could change the outlook to stable if the improvement in financial performance recorded in 2019 continues and IDEMIA delivers synergies and significantly reduces nonrecurring items, such that leverage decreases while FCF turns positive.

Factors that could lead to an upgrade

Given the weak rating position at present, an upgrade is not likely but could take place over time if IDEMIA returns to materially positive top-line growth, reduces and maintains Moody's-adjusted leverage below 6.0x, generates material positive FCF on a sustained basis and maintains adequate liquidity.

Factors that could lead to a downgrade

The rating could be downgraded if IDEMIA fails to reduce Moody's-adjusted leverage because of, among other factors, revenue pressure or a failure to deliver cost synergies; its FCF remains negative to a larger extent or a longer period than expected and this impairs the company's liquidity.

Key indicators

Exhibit 2

IDEMIA Group [1]

	FY 2017 PF	FY 2018	FY 2019	Fwd view 12-18 months
Revenue (USD Billion)	\$2.8	\$2.4	\$2.6	\$2.5 - \$2.6
EBITA Margin	7.7%	4.6%	8.6%	7.2% - 8.5%
EBITA / Interest Expense	1.9x	0.9x	1.7x	1.5x - 1.7x
Debt / EBITDA	9.1x	11.3x	7.6x	8.3x - 9.3x
Retained Cash Flow / Net Debt	-5.9%	4.2%	2.7%	5.6% - 6.8%
Free Cash Flow / Debt	-8.0%	-6.5%	-4.4%	-1.6% - -0.8%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Profile

Headquartered in Paris, France, IDEMIA is an international group that develops, manufactures and markets specialized security technology products and services mainly for identity and public security, payments, telecommunications and automotive markets. The group has been majority-owned by funds controlled by Advent International since November 2011, when the private equity sponsor purchased Oberthur for €1,126 million (or 9.1x 2011 company-adjusted EBITDA). Oberthur subsequently completed the acquisition of Safran's identity and security business, Morpho, on 31 May 2017 for a total consideration of €2,425 million (or 11.9x 2016e company-adjusted EBITDA). As part of the Morpho acquisition, Advent International was joined by BpiFrance as a minority investor. IDEMIA is the new brand name for the Oberthur-Morpho combination.

IDEMIA generated revenue of €2.3 billion and company-adjusted EBITDA of €397 million in 2019, which equates to an adjusted EBITDA margin of 17.0%. The company is now organized along two internal reporting lines: Secured Enterprise Transactions (key products include payment cards, mobile money solutions, SIM cards, embedded secure elements for mobile phones and tablets, access cards for digital television) and Government Solutions (products include identity solutions, public security and biometric and document identification). Revenue was split broadly evenly between the two divisions in 2019, according to company reporting.

Detailed credit considerations

Strong market positions, enhanced by the complementary acquisition of Morpho

IDEMIA benefits from its number two global position in the payment smart card and telecom SIM card industries behind Gemalto N.V. (Gemalto), the global leader that is now owned by [Thales](#) (A2 stable).

The acquisition of Morpho in 2017 was complementary and significantly improved Oberthur's business profile by adding scale to existing verticals. At the same time, the purchase also provided a new security vertical with a market leading position.

Scale is very important in the industry, with economies of scale essential to remaining competitive as products mature. Although Morpho's card payments and telecom SIM business segments were subscale, they added to Oberthur's existing business and, thus, consolidated its number two market position with an additional €350 million of revenue. Similarly, Oberthur's identity business segment's scale increased significantly following the transaction.

Additionally, with the purchase of Morpho, Oberthur diversified into a world-leading security business that competes with companies such as [3M Company](#) (A1 negative), NEC Corporation, Vision-Box SA and Suprema Inc.

Limited number of companies, particularly in payment, identity and security, reflecting high barriers to entry

IDEMIA enjoys strong market positions in its key verticals (Secure Enterprise Transactions and Government Solutions), which are defensible because of high barriers to entry. The digital security industry demands high reliability. Payment smart card manufacturers need to obtain restrictive certifications imposed by their customers and demonstrate an ability to process significant amounts of highly sensitive data. Similar certifications are required for identity and security contracts with public-sector customers.

We view the company's long track record of operations in its core industries with a diversified portfolio of long-standing blue-chip customers as positive. In its Secured Enterprise Transactions vertical, clients include over 1,200 multinational financial institutions. The critical nature of the digital security products and related services provided for banks and governments supports trusted long-standing relationships with clients, leading to limited customer churn, favoring well-established companies.

The company's size and global footprint allow for economies of scale in a market driven by a large volume of shipments, delivery, reactivity and full-service provision to customers with global operations. Operations are supported by a global manufacturing and service center network in 60 countries, offering secure devices and delivering documents in 140 countries, 11 manufacturing sites built around five key regional hubs and 39 secure service centers. These underpin IDEMIA's global competitiveness, as they allow for local personalization and delivery reactivity, enhanced confidential data management and customer service.

Highly diversified portfolio of customers

IDEMIA benefits from a diversified portfolio of long-standing blue-chip customers, including more than 1,200 multinational financial institutions, over 400 mobile operators and over 100 government entities. Following the acquisition of Morpho, the company's customer portfolio became more equally balanced between public- and private-sector markets. While on a standalone basis, Oberthur

generated most of its revenue from corporates, including financial institutions and mobile operators, Morpho's business identity and security business was geared toward public-sector clients. No single client accounts for more than 3% of the group's sales, even though within certain sub-segments, there is a higher degree of customer concentration because of its reliance on big-ticket contracts.

Limited recurring revenue and lack of visibility in some of IDEMIA's business lines

The acquisition of Morpho in 2017 was expected to increase the group's exposure to growth markets and improve recurring revenue and visibility. Morpho's security business, which was incorporated into Government Solutions, was considered fast growing and, thus, was likely to mitigate the revenue constraints arising from the telecom sub-segment, excess inventory in the banking card segment and volatility in identity solutions. In reality, the Government Solutions division has underperformed compared to our expectations and has proven to be a somewhat uneven source of revenue. This, in combination with a certain degree of volatility in the payment solutions business line, reduces visibility in terms of IDEMIA's future top line.

Innovation has enabled the company to maintain its competitive position, but technological risk is high

We positively view IDEMIA's track record in developing products and services that respond to the evolving needs of customers. However, we consider technological risk high, as the company must not only innovate but also monetize its technological solutions and ensure that the adoption of new technologies provides the same economies as those it replaces.

For example, we expect the adoption of embedded SIM (eUICC/eSIM) technology within mobile handsets, in place of physical SIM cards, over the next three to five years. The exact impact of eSIM on IDEMIA's top line is difficult to model. On the one hand, the widespread adoption of eSIM technology would affect customer relationships, shifting from more than 200 mobile operators globally to a handful of global handset makers. In addition, IDEMIA could face new competitors that are not operating in the physical smart card market. However, the impact is likely to be mitigated by the reduced importance of telecom solutions following the acquisition of Morpho; the fact that eSIM technology could be limited to developed countries, which account for a relatively modest proportion of annual shipments; and IDEMIA's inclusion of virtual SIM card in its product portfolio.

Technological or substitution risk applies to a smaller extent to payment cards. The latest technologies to be implemented in the payment industry include mobile payment, which enables payment through smartphones because of local (near-field communication) connectivity. While this innovation is likely to reduce card usage, in particular wear and tear and loss, we do not believe, at this stage, that the physical payment card will be fully substituted.

Financial performance improved in 2019, but more growth is required; coronavirus impact is a temporary setback

IDEMIA's financial performance in the first two years following the acquisition of Morpho was weak, marked by declining revenue, limited growth in profitability despite the delivery of significant synergies, very large exceptional items and highly negative cash flow. That said, 2019 witnessed an improvement in several key metrics. Led by a new management team, IDEMIA outperformed expectations, with revenue rising 9% year on year in 2019 (6% on a constant-currency basis) and company-adjusted EBITDA improving to €397 million from €386 million in 2018. The company also reduced its exceptional items in 2019, which led to a significant improvement in Moody's-adjusted EBITDA to €306 million from €200 million in 2018.

The key metric that continues to require additional improvement is cash flow, which remained negative, despite improving from prior-year levels. More specifically, Moody's-adjusted FCF (which excludes cash proceeds from disposals) remained negative at -€103 million in 2019, mainly because of high levels of capital spending, despite continuing to improve from -€147 million and -€171 million in 2018 and 2017, respectively.

It is important that IDEMIA continues to build on the momentum that the new management team has generated, despite a temporary setback from the coronavirus outbreak in 2020. Although we think that most of the company's business lines will be relatively resilient to the recent lockdowns and economic downturn, we forecast company-adjusted EBITDA to decline toward €375 million in 2020. We expect that this will be followed by a subsequent recovery toward €415 million in 2021, on the back of a recovery in revenue growth. Importantly, we believe that IDEMIA's historically negative cash flow generation will continue, but at a more reduced pace because of lower non-recurring items and a reduction in capital spending from exceptional levels in 2019, with Moody's-adjusted FCF at a negative €40 million in 2020 and around break-even in 2021.

Lower leverage but limited expectations for further improvements over 2020 and 2021

IDEMIA's Moody's-adjusted leverage improved to 7.6x as of 31 December 2019, from 11.3x a year earlier, mainly because of an improvement in EBITDA and lower non-recurring items. However, we see limited improvement from recent levels during the course of the next 12-18 months, given the aforementioned impact of the coronavirus, which will keep leverage high at around 9x in 2020 and around 7.5x in 2021, which is at the high-end of the range for the company's B3 CFR.

Exhibit 3

Reconciliation of IDEMIA's adjusted gross leverage as of 31 December 2019 (in € million)

EBITDA bridge	
	FY2019
Company Adjusted EBITDA	397
Non-recurring income and expenses	(14)
Others	3
Exchange losses and hedging instruments result	(6)
IFRS 2 Share bases payments	(5)
Unusual Items	(10)
Pension expense	1
Capitalised Development Costs - Additions	(60)
Moody's adjusted EBITDA	306
Debt bridge	
Revolving credit facility	35
Term Loan B	2,043
Financing fees	(47)
Finance leases	138
Factoring (on BS)	1
Other financial debt	40
Bank overdraft	8
Total debt	2,219
Factoring (off BS)	42
Pensions	52
Moody's adjusted debt	2,313
Moody's adjusted debt / EBITDA	7.6x

The reconciliation is based on audited accounts, which include the impact of IFRS 16.

Source: Moody's Investors Service

Liquidity analysis

IDEMIA has adequate liquidity. Although Moody's-adjusted FCF was significantly negative at -€103 million in 2019, the company preserved its liquidity by raising cash proceeds from asset disposals. As a result, its liquidity amounted to €400 million as of 31 March 2020, which included €305 million of cash on balance and €95 million available under its €300 million RCF. We expect this liquidity to be sufficient to absorb the cash outflows related to negative FCF that we project over the next 12-18 months.

The RCF has a springing leverage covenant, tested only when 35% of the facility is drawn. If tested, the maximum net leverage is set at 7.8x compared with a pro forma net leverage ratio at 4.5x as reported by the company as of the first quarter of 2020.

The €300 million RCF matures in January 2023, whereas IDEMIA's term debt matures in January 2024.

Structural considerations

IDEMIA's probability of default rating (PDR) of B3-PD is aligned with its CFR, reflecting our assumption of a 50% family recovery rate, in line with our practice for covenant-lite all-first-lien loan capital structures. The €2,100 million term loan and the €300 million RCF rank pari passu and are both rated B3, in line with the CFR and reflecting the absence of any significant liabilities ranking ahead or behind.

The senior secured facilities benefit from guarantees equivalent to a minimum of 80% of EBITDA and gross assets. The security package includes share pledges, along with pledges over bank accounts and intercompany receivables, which we consider fairly weak. The

shareholder loans and preferred shares used in the post-acquisition capitalization of the company are not included in the debt structure as they meet our criteria for full equity treatment.

Rating methodology and scorecard factors

The principal methodology used in these ratings was Global Manufacturing Companies, published in March 2020.

The one-notch difference between the scorecard indicated outcome and the actual rating assigned reflects the level of IDEMIA's negative FCF and the significant execution risk associated with the company's overall financial performance over the next 12 to 18 months.

Exhibit 4

Rating factors

IDEMIA Group			Moody's 12-18 Month Forward View As of 6/11/2020 [3]	
Manufacturing Industry Grid [1][2]				
	Current FY 12/31/2019			
Factor	Measure	Score	Measure	Score
Factor 1 : Business Profile (20%)				
a) Business Profile	Ba	Ba	Ba	Ba
Factor 2 : Scale (20%)				
a) Revenue (USD Billion)	\$2.6	Ba	\$2.5 - \$2.6	Ba
Factor 3 : Profitability (10%)				
a) EBITA Margin	8.6%	Ba	7.2% - 8.5%	Ba
Factor 4 : Coverage and Leverage (40%)				
a) EBITA / Interest Expense	1.7x	B	1.5x - 1.7x	B - Caa
b) Debt / EBITDA	7.6x	Caa	8.3x - 9.3x	Ca
c) Retained Cash Flow / Net Debt	2.7%	Caa	5.6% - 6.8%	Caa
d) Free Cash Flow / Debt	-4.4%	Caa	-1.6% - -0.8%	Caa
Factor 5 : Financial Policy (10%)				
a) Financial Policy	B	B	B	B
Rating:				
a) Indicated Outcome from Scorecard		B2		B2
b) Actual Rating Assigned				B3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2019.

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics™

Ratings

Exhibit 5

<u>Category</u>	<u>Moody's Rating</u>
IDEMIA GROUP	
Outlook	Negative
Corporate Family Rating	B3
Bkd Sr Sec Bank Credit Facility	B3/LGD4

Source: Moody's Investors Service

© 2020 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/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S INVESTORS SERVICE 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 INVESTORS SERVICE CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

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

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

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

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

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

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and Moody's investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody'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 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

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

CLIENT SERVICES

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