

CREDIT OPINION

5 November 2019

Update

 Rate this Research

RATINGS

Development Bank of Southern Africa

Domicile	Johannesburg, South Africa
Long Term Rating	Baa3
Type	LT Issuer Rating - Fgn Curr
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

Constantinos Kypreos
Senior Vice President
constantinos.kypreos@moodys.com

Agatha Charalambous
Associate Analyst
agatha.charalambous@moodys.com

Antonello Aquino
Associate Managing Director
antonello.aquino@moodys.com

Carola Schuler
MD-Banking
carola.schuler@moodys.com

CLIENT SERVICES

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

Development Bank of Southern Africa

Update following outlook change to negative

Summary

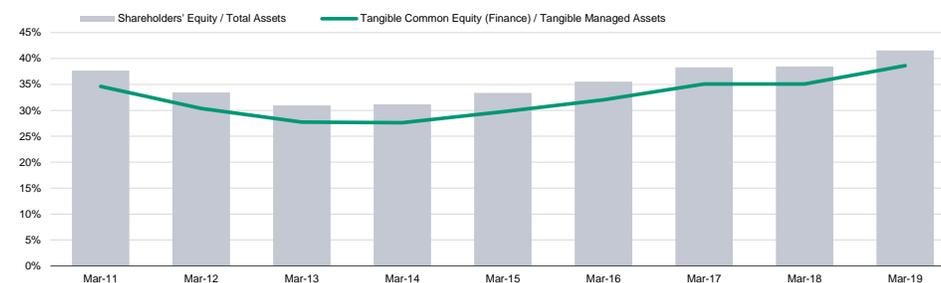
We assign Baa3/Prime-3 issuer ratings to [Development Bank of Southern Africa](#) (DBSA), which reflects DBSA's Baseline Credit Assessment (BCA) of ba2 and two notches of uplift, incorporating our assumption of a high probability of support from the [Government of South Africa](#) (Baa3 negative) in case of need because of its full government ownership, development mandate and evidence of past capital support. We also assign Aa1.za/P-1.za national scale issuer ratings.

We have recently changed DBSA's outlook to negative from stable, primarily to reflect the potentially weakening capacity of South Africa's government to support DBSA in case of need, as also captured by South Africa's outlook change to negative.

DBSA's BCA of ba2 reflects two contrasting factors: (1) the bank's high capital buffers, with a tangible common equity (TCE)-to-tangible managed assets ratio of 38.6% as of March 2019, which provide the bank with significant capacity to absorb unexpected losses; and (2) the challenging operating environment, which, combined with DBSA's countercyclical/development mandate and high credit concentrations, translates into high asset risks.

DBSA has historically displayed a stable funding profile and was able to roll over maturing debt and raise necessary new funding; however, new funding sources will be required, in an environment where debt and capital markets remain volatile, if DBSA is to implement its strong balance sheet growth plans.

Exhibit 1
High capital buffers a key strength



Sources: Moody's Financial Metrics and DBSA's financials

Credit strengths

- » Solid capital buffers, sufficient to absorb unexpected credit losses
- » High probability of government support, which underpins DBSA's ratings

Credit challenges

- » DBSA's asset-quality metrics are under pressure, partly reflecting its high concentrations, development mandate and challenging operating conditions
- » Despite a historically stable funding profile, new funding sources will be required, in an environment where debt and capital markets remain volatile, if DBSA is to implement its strong balance sheet growth plans

Rating outlook

DBSA's negative outlook is in line with South Africa's negative rating outlook, and reflects the government's potentially weakening capacity to extend support in case of need.

Factors that could lead to an upgrade

There is a low likelihood of upwards rating movement in view of the negative rating outlook. DBSA's rating outlook could change to stable if both the sovereign rating outlook is stabilised and DBSA maintains its resilient financial performance.

Factors that could lead to a downgrade

Any weakening in the South African government's credit profile or willingness to support DBSA, could strain the bank's issuer ratings. In addition, a weakening in DBSA's BCA, driven by a material deterioration in asset-quality metrics, would also likely exert downward rating pressure.

Key indicators

Exhibit 2

Development Bank of Southern Africa (Consolidated Financials) [1]

	03-19 ²	03-18 ²	03-17 ²	03-16 ²	03-15 ²	CAGR/Avg. ³
Total managed assets (ZAR Million)	89,492.4	89,213.5	83,654.8	82,347.5	70,946.0	6.0 ⁴
Total managed assets (USD Million)	6,205.6	7,529.4	6,238.8	5,598.8	5,855.4	1.5 ⁴
Net Income / Average Managed Assets (%)	3.5	2.6	3.4	3.4	1.8	2.9 ⁵
Tangible Common Equity (Finance) / Tangible Managed Assets (%)	38.6	35.1	35.1	32.0	29.7	34.1 ⁵
Problem Loans / Gross Loans (Finance) (%)	4.9	4.5	3.3	3.7	5.1	4.3 ⁵
Net Charge-offs / Average Gross Loans and Leases (%)	0.3	0.1	0.0	0.5	0.4	0.3 ⁵
Debt Maturities Coverage (%)	16.3	54.6	--	--	--	35.4 ⁵
Secured Debt / Gross Tangible Assets (%)	0.0	0.0	0.0	0.0	0.0	0.0 ⁵

[1]All figures and ratios are adjusted using Moody's standard adjustments. [2]IFRS [3]May include rounding differences due to scale of reported amounts. [4]Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5]Simple average of periods presented for the latest accounting regime.

Source: Moody's Investors Service; Company Filings

Profile

The Development Bank of Southern Africa (DBSA), with total assets of ZAR89.5 billion as of March 2019, is a government-owned development finance institution, delivering developmental infrastructure in South Africa and the rest of the African continent. Around 75% of DBSA's gross loans as of March 2019 were concentrated in South Africa. The remainder was exposed to the wider sub-Saharan Africa region, particularly Zambia at 8% and Angola at 5%, and Zimbabwe and Ghana, each at around 3%.

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.

Detailed credit considerations

DBSA's high capital buffers are its major strength

We assign a Capital score of A2, three notches below its initial score, reflecting the projected strong balance sheet growth, which is likely to place some pressure on the current capital buffers.

DBSA maintains strong capital buffers, with a TCE-to-managed assets ratio of 38.6%, as of March 2019. The bank has historically benefitted from ongoing capital support from the government, including disbursements of around ZAR7.9 billion in 2013-16. DBSA's capital buffers provide significant capacity to both absorb unexpected credit losses and grow the balance sheet, while the impact of IFRS9 implementation was modest (ZAR203 million). Nonetheless, we expect a gradual decline in DBSA's capital metrics, partly because of the bank's strategy to accelerate its infrastructure funding to municipalities, state-owned entities, regional partners and public-private partnerships, and also to support infrastructure projects related to green energy.

The bank is obliged by the DBSA Act to maintain a maximum debt-to-equity ratio of 250%. As of March 2019, this ratio stood at around 138.1%, while if we also include the ZAR20 billion callable capital (which requires parliamentary approval for release), the ratio drops to 89.8%. Management is also monitoring economic capital requirements by applying the Basel principles.

Asset-quality metrics under pressure, partly reflecting high concentrations and DBSA's development mandate

We assign a weighted-average Asset Risk score of B2, seven notches below its initial score, capturing high single-name and sectoral concentrations, and the challenging operating conditions.

DBSA reported a nonperforming loans (NPLs)-to-gross loans ratio of 4.9% as of March 2019, but with "underperforming"/Stage 2 loans accounting for an additional high 36.1% of gross loans. We expect ongoing pressure on its asset-quality metrics as a result of both the still-challenging operating environment — for 2019 and 2020, we forecast GDP growth rates of 0.7% and 1.0%, respectively, well below the potential and the rate required to create new jobs — and the high credit concentrations that result in elevated credit risks. Similarly, we expect the bank's annual provisioning charges (of around 1.8% of gross loans for the fiscal year ended March 2019 [fiscal 2019]) to remain broadly at these elevated levels.

Exhibit 3

The still-challenging operating environment will strain DBSA's asset-quality metrics



Sources: Moody's Financial Metrics and DBSA's financials

DBSA continues to exhibit high credit concentrations; we estimate that the bank's 10 largest exposures constitute over 50% of its gross loans. We view such high credit concentrations as a moderating factor for DBSA's standalone profile because a possible default by any of these large borrowers could potentially weaken the bank's financial fundamentals. More specifically, we understand that DBSA maintains a significant exposure to [Eskom Holdings SOC Limited](#) (Eskom, B2 negative), the troubled electricity generator, estimated to constitute more than 19% of gross loans. Eskom's debt to DBSA is unsecured, unlike most of Eskom's debt, which carries a government guarantee.

Higher pockets of risk also reside within DBSA's exposures to (1) the wider sub-Saharan African region; (2) private-sector intermediaries, which constituted around 64% of its total NPLs but only 29% of its loan book; and (3) the smaller South African municipalities.

Moderate, but volatile, earnings-generating capacity

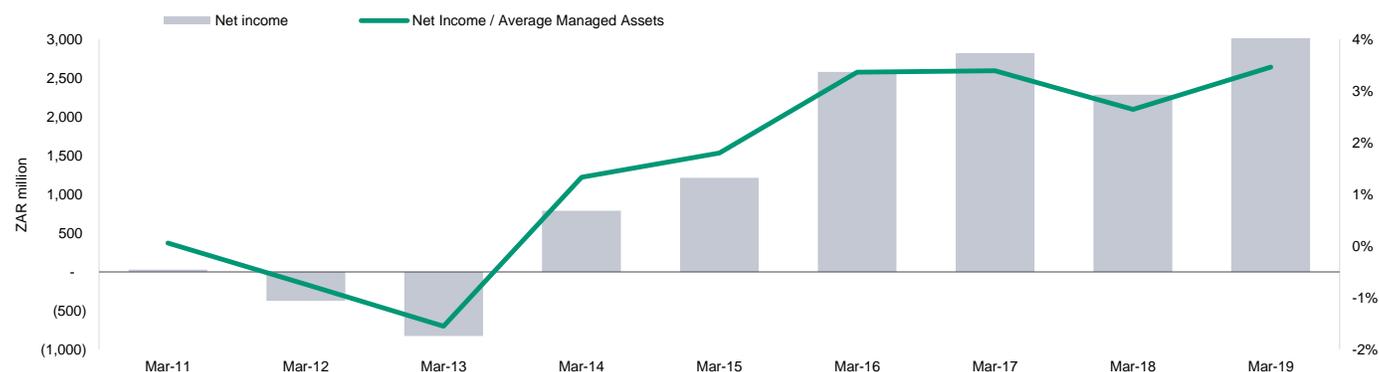
We assign a Ba2 Profitability score, five notches below its initial score, reflecting historical and potential earnings volatility and the challenging operating environment that will likely place pressure on DBSA's earnings generating capacity.

For fiscal 2019, DBSA reported bottom-line profit of ZAR3.097 billion (fiscal 2018: ZAR2.283 billion), translating into a return on equity of 8.3% (against an average 16% return by commercial banks) and a net income on average managed assets of 3.5%. Net interest income remains DBSA's dominant revenue source (up 17% to ZAR4.494 billion in March 2019), while the company also reported FX revaluation gains of ZAR744 million (2018: losses of ZAR302 million). Bottom line profits were, however, moderated by higher provisioning costs of ZAR1,440 million (March 2018: ZAR622 million) and lower equity gains of ZAR22 million (March 2018: ZAR175 million).

DBSA made significant efforts to streamline its operations and contain its costs, achieving a cost-to-income ratio of around 19% in March 2019, down from 51% as of the end of March 2013. This improvement was achieved despite DBSA's strategy to hire employees with key skills to support business growth. Nonetheless, we expect DBSA's earnings-generating capacity to remain under pressure, primarily because of our expectations of elevated provisioning requirements amid the challenging operating conditions.

Exhibit 4

Volatile bottom-line profit



Sources: Moody's Financial Metrics and DBSA's financials

A historically stable funding profile, although DBSA's future plans will require it to find new funding sources in an environment where debt and capital markets remain volatile

We assign a weighted-average Cash Flow and Liquidity Score of Ba3, four notches below the initial score, primarily to reflect the limited benefits derived from DBSA's very low secured debt, given the limited size and depth of the South African securitisation market.

DBSA has displayed a stable funding profile and has been able to roll over maturing debt and raise necessary new funding. The bank's total borrowings increased to ZAR51 billion in March 2019 from ZAR35.9 billion in March 2013. The bank maintains a relatively diversified funding profile by (1) tapping the local capital markets via an ZAR80 billion domestic medium-term note programme; (2) gaining access to money-market funds and maintaining numerous lines of credits with local banks and financial institutions; and (3) raising funds from development finance institutions.

We understand that a number of new funding lines are under negotiation, while DBSA's funding structure is also well spread over the maturity ladder, with 16% of the total maturing in over five years and an additional 32% maturing between two and five years. Management estimates the 12-month cumulative liquidity gap at around ZAR7.5 billion, while the Moody's-adjusted 12-month maturities coverage ratio (which includes around ZAR1.6 billion of committed undrawn lines) is estimated at 31%. DBSA predominantly raises unsecured debt, which provides it with some financial flexibility to encumber or sell assets if needed, while management manages long-term funding mismatches according to the minimum of a net stable funding ratio of 100% and a minimum liquidity coverage ratio of 100%.

DBSA, however, remains dependent on market funding at a time when it plans accelerated balance-sheet growth in an effort to deepen its developmental impact; it is, therefore, vulnerable to increased risk aversion by institutional investors, which may stem from either idiosyncratic or broader systemic concerns (for example, regarding governance issues or the country's macro-environment).

Operating environment

We assign a Ba2 score to DBSA's Operating Environment, based wholly on our assessment of the industry risk of South African industrial and infrastructure lenders.

Macro-level indicator

The Macro-Level Indicator does not have any weighting in the scorecard because the Macro-Level Indicator score (Baa2) is higher than the Ba Industry Risk score.

Industry risk

The Ba Industry Risk score reflects finance companies' high market share in South Africa's industrial and infrastructure lending market; the current high demand, given the country's needs for infrastructure, energy and industrial projects; and a product base that faces a low risk of obsolescence. Barriers to entry are moderate, with both banks and the capital markets in a position to provide lending for industrial and infrastructure projects; but to compete effectively, market players need both access to long-term funding and sizeable initial capital. These strengths are, however, balanced against strong competition from the country's leading banks (which also translates into limited pricing power for the finance companies) and relatively high regulatory/legal risks relating to changes to South Africa's Mining Charter and upcoming land reforms.

Environmental, social and governance considerations

In line with our general view for the banking sector, DBSA has a low exposure to environmental risks. See our [Environmental risk heat map](#) for further information.

We believe banks face moderate social risks, including DBSA. See our [Social risk heat map](#) for further information.

Governance is highly relevant for DBSA. Corporate governance weaknesses can lead to a deterioration in a company's credit quality, while governance strengths can benefit its credit profile. Governance risks are largely internal rather than externally driven.

Over the recent past, South African state-owned enterprises have attracted considerable attention, as some have exhibited high-level corruption and state capture. In the case of DBSA, no such issues were raised, while a number of initiatives were taken to strengthen governance further; these initiatives were aimed at ensuring that directors' decisions remain free from any conflicts and tightening controls around lending to politically exposed persons. Nonetheless, corporate governance remains a key credit consideration and, while we do not adjust for corporate behaviour in our scorecard, we will continue to monitor developments.

Support and structural considerations

High probability of government support, given government ownership and policy mandate

DBSA's Baa3 long-term issuer rating benefits from a two-notch uplift from the bank's BCA of ba2 because of a high probability of support from the South African government. Our assumption of a high probability of government support is underpinned by (1) DBSA's 100% government ownership, with no medium-term plans to divest its stake; (2) the history of the government providing ongoing capital support; and (3) the lack of any legal barriers for DBSA's timely support. We note, however, that increased fiscal challenges suggest that – going forward – the government will be more selective in dispersing financial support to state-owned enterprise. It is for this reason why we now cap our support assumptions at "high".

In addition, DBSA has a crucial role in the development of South Africa's economic, institutional and social infrastructure, including its mandate to promote the government's economic growth and development plans. In recent years, the bank's links with the government have been further strengthened because of the financial institution's important role in promoting South Africa's New Growth Path. DBSA also acts as a vital financial intermediary between the financial markets and the local authorities, including smaller municipalities with limited access to the capital markets, as well as private entities with difficulties in obtaining commercial financing.

The Minister of Finance, in his/her capacity as the bank's governor, determines the bank's mandate and holds the board of directors accountable for managing the organisation to deliver on its mandate. DBSA is regulated under the Public Finance Management Act

and the DBSA Act, and submits a corporate plan to the National Treasury, which also documents the key performance measures and targets against which organisational performance is assessed.

The very high default dependence reflects the high probability that, in the event of a sovereign credit default, the risk of a potential financial crisis affecting DBSA is quite high, given (1) the clear operational links with the government, whereby DBSA has an explicit and well-recognised mandate to implement specific government policies; (2) the geographical focus of the bank's activities in South Africa; and (3) the bank's high exposure to the local government and public utility sectors.

National scale ratings

DBSA's Aa1.za long-term and P-1.za short-term South African national scale ratings are derived from the bank's global scale issuer rating. These ratings demonstrate that DBSA has one of the strongest credits in the country, primarily reflecting its high capital buffers and our assumption of a high probability of government support in case of need.

Source of facts and figures in this report

Unless noted otherwise, we have sourced data relating to systemwide trends and market shares from the central bank. Company-specific figures originate from DBSA's financial statements and Moody's Banking Financial Metrics. All figures are based on our own chart of accounts and may be adjusted for analytical purposes. Please refer to the document [Financial Statement Adjustments in the Analysis of Financial Institutions](#), published on 9 August 2018.

Rating methodology and scorecard factors

The principal methodologies used in rating DBSA were Finance Companies, published in December 2018, and Government-Related Issuers, published in June 2018.

Exhibit 5

Development Bank of Southern Africa

Development Bank of Southern Africa

Financial Profile	Factor Weights	Historic Ratio	Initial Score	Assigned Score	Key driver #1	Key driver #2
Profitability						
Net Income / Average Managed Assets (%)	10%	3.17%	A3	Ba2	Earnings volatility	Expected trend
Capital Adequacy and Leverage						
Tangible Common Equity / Tangible Managed Assets (%)	25%	38.62%	Aa2	A2	Excessive growth	
Asset Quality						
Problem Loans / Gross Loans (%)	10%	4.89%	B1	Caa3	Expected trend	Portfolio composition
Net Charge-Offs / Average Gross Loans (%)	10%	0.32%	Aaa	Baa3	Expected trend	Portfolio composition
Weighted Average Asset Risk Score			Baa1	B2		
Cash Flow and Liquidity						
Debt Maturities Coverage (%)	10%	16.27%	Caa3	Ba3	Pro-forma adjustments	Other adjustments
FFO / Total Debt (%)	15%	6.90%	B3	B3		
Secured Debt / Gross Tangible Assets (%)	20%	0.00%	Aa1	Ba1	Other adjustments	
Weighted Average Cash Flow and Liquidity Score			Baa3	Ba3		
Financial Profile Score	100%		Baa1	Ba2		
Operating Environment						
Home Country						
	Factor Weights	Qualitative Scale	Score			
Macro Level Indicator	0%		Baa2			
Economic Strength	25%	Moderate +				
Institutional Strength	50%	Moderate +				
Susceptibility to Event Risk	25%	Moderate -				
Industry Risk	100%		Ba			
Home Country Operating Environment Score			Ba2			
	Factor Weights		Score	Comment		
Operating Environment Score	0%		Ba2			
ADJUSTED FINANCIAL PROFILE				Score		
Adjusted Financial Profile Score				Ba2		
Financial Profile Weight	100%					
Operating Environment Weight	0%					
Business Profile and Financial Policy				Adjustment	Comment	
Business Diversification, Concentration and Franchise Positioning				0		
Opacity and Complexity				0		
Corporate Behavior / Risk Management				0		
Liquidity Management				0		
Total Business Profile and Financial Policy Adjustments				Ba2		
Sovereign or parent constraint				Baa3	Comment	
Standalone Assessment Range				ba1 - ba3		
Assigned Standalone Assessment				ba2		

Government -Related Issuer	Factor
a) Standalone Credit Profile	Ba2
b) Government Local Currency Rating	Baa3
c) Default Dependence	Very High
d) Support	High
e) Final Rating Outcome	Baa3

[1] Capped at Ba; the risk management subfactor score will not exceed the weighted average of scores assigned to a firm's other risk positioning subfactor scores.

[2] Capped at Ba; the operating environment score will not exceed the weighted average of scores assigned to a firm's other non-financial factors.

Source: *Moody's Financial Metrics*

Ratings

Exhibit 6

Category	Moody's Rating
DEVELOPMENT BANK OF SOUTHERN AFRICA	
Outlook	Negative
Issuer Rating	Baa3
NSR Issuer Rating	Aa1.za
ST Issuer Rating	P-3
NSR ST Issuer Rating	P-1.za

Source: Moody's Investors Service

© 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 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 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.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 61 003 399 657 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 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 1196445

CLIENT SERVICES

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