MOODY'S INVESTORS SERVICE

CREDIT OPINION

10 February 2023

Update

Send Your Feedback

RATINGS

Zenith Bank Plc

Domicile	Lagos, Nigeria
Long Term CRR	Caa1
Туре	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	(P)Caa1
Туре	Senior Unsecured MTN - Fgn Curr
Outlook	Not Assigned
Long Term Deposit	Caa1
Туре	LT Bank Deposits - Fgn Curr
Outlook	Stable

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Mik Kabeya	+44.20.7772.8614				
VP-Senior Analyst					
mik.kabeya@moodys.co	om				
Lynn Merhi <i>Associate Analyst</i> lynn.merhi@moodys.cc	+44.20.7772.1983				
Antonello Aquino	+44.20.7772.1582				
Associate Managing Director					
antonello.aquino@moo	odys.com				

Nick Hill +33.1.5330.1029 MD-Financial Institutions nick.hill@moodys.com

Zenith Bank Plc

Update following sovereign rating action

Summary

Zenith Bank Plc's (Zenith) Caa1 deposit rating is aligned with its caa1 Baseline Credit Assessment (BCA). Zenith's financial profile is b3 in our scorecard (page 7), but we constrain the bank's BCA at caa1 (in line with the <u>Nigerian</u> sovereign rating (Caa1 stable)) given the interlinkages between the sovereign's creditworthiness and the bank's balance sheet.

Although we believe there is a high probability that the Nigerian government would support the bank's senior liabilities in case of need, this does not benefit the ratings as the government itself is rated no higher than the bank's BCA.

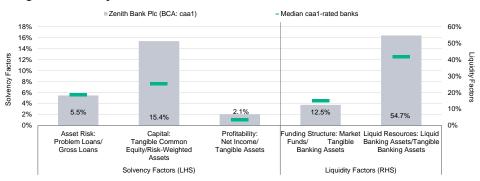
Zenith's caa1 BCA primarily reflects the constraints from the weakening operating environment in Nigeria, as well as the interlinkages between the sovereign's weakened creditworthiness and the bank's balance sheet.

These challenges are partly moderated by the bank's robust risk management, strong capitalisation and long US dollar position (which would help moderate the impact of a potential material currency depreciation), solid and conservative management of foreign currency liquidity (supported by strong ties with large non-oil exporting corporates), deposit-funded balance sheet, along with strong profitability underpinned by the bank's disciplined approach and strong ties with large corporates.

The bank also carries national scale long-term deposit ratings of Baa3.ng.

Exhibit 1

Rating Scorecard - Key financial ratios



The problem loan and profitability ratios (in this exhibit and the scorecard on page 7) are the weaker of the average of three-year ratios and the latest reported quarterly ratio. The capital ratio is the latest reported figure. The funding and liquid assets ratios are the latest year-end figures.

Source: Moody's Investors Service

Credit strengths

- » Strong capitalisation, and long US dollar position, provide some buffer in case of a potential material currency depreciation
- » Strong profitability underpinned by the bank's disciplined approach, robust franchise and strong ties with large corporate clients
- » Solid and conservative management of foreign currency liquidity partly moderates the risk from foreign currency shortages in Nigeria

Credit challenges

- » Weakening operating environment in Nigeria
- » Exposure to the sovereign (through sovereign debt securities holdings), which creates interlinkages between the sovereign's weakened creditworthiness and the bank's balance sheet
- » Elevated inflation, high interest rates and weakening local currency pose risks to the bank's solid asset quality

Outlook

The stable outlook is in line with the stable outlook on Nigeria's government rating.

The stable outlook on the sovereign rating balances the potential for a renewed reform impetus post-elections against persisting fiscal pressure and an expected lengthy policy implementation amid marked socio-political constraints.

Factors that could lead to an upgrade

The ratings could be upgraded if there was a material improvement in the sovereign's credit profile and in the local operating environment.

Factors that could lead to a downgrade

The ratings could be downgraded if there was (a) a deterioration in the sovereign's credit profile, and/or (b) a significant weakening in the operating environment in Nigeria, and/or (c) a material deterioration in the bank's solvency and liquidity.

Key indicators

Exhibit 2

Zenith Bank Plc (Consolidated Financials) [1]

	09-22 ²	12-21 ²	12-20 ²	12-19 ²	12-18 ²	CAGR/Avg. ³
Total Assets (NGN Million)	11,341,979.0	9,447,843.0	8,481,273.0	6,346,879.0	5,955,710.0	18.7 ⁴
Total Assets (USD Million)	26,043.6	22,834.7	21,485.2	17,488.4	16,384.3	13.2 ⁴
Tangible Common Equity (NGN Million)	1,239,426.0	1,208,044.0	1,058,155.0	900,455.0	787,677.0	12.8 ⁴
Tangible Common Equity (USD Million)	2,846.0	2,919.7	2,680.6	2,481.1	2,166.9	7.54
Problem Loans / Gross Loans (%)	4.4	4.2	6.4	6.8	9.0	6.2 ⁵
Tangible Common Equity / Risk Weighted Assets (%)		15.4	16.5	17.7	18.9	17.1 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	12.7	10.8	15.6	15.9	18.5	14.7 ⁵
Net Interest Margin (%)	3.8	3.8	4.1	4.6	5.3	4.3 ⁵
PPI / Average RWA (%)		4.7	5.2	6.0	6.2	5.5 ⁶
Net Income / Tangible Assets (%)	2.1	2.6	2.7	3.3	3.3	2.8 ⁵
Cost / Income Ratio (%)	51.6	46.0	46.4	46.4	47.4	47.6 ⁵
Market Funds / Tangible Banking Assets (%)	12.2	12.5	15.5	12.2	20.4	14.5 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	43.9	54.7	57.7	50.1	45.1	50.3 ⁵
Gross Loans / Due to Customers (%)	50.5	54.1	54.7	57.8	54.6	54.3 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel II; IFRS. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime. [6] Simple average of Basel II periods. Sources: Moody's Investors Service and company filings

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Profile

Zenith Bank Plc (Zenith) is a Nigeria-based bank established in 1990. Zenith is the second largest bank in Nigeria, with consolidated total assets of \$26 billion as of September 2022. Zenith is a full-service commercial bank that offers corporate banking, commercial and consumer banking, personal and private banking, trade and foreign-exchange, and treasury and cash management services.

Detailed credit considerations

Elevated inflation, high interest rates and weakening local currency pose risks to the bank's solid asset quality

We expect Zenith's asset quality to face some pressure amid the challenging and weakening operational environment in Nigeria. The elevated inflation, the increasing interest rates, as well the weakening in the local currency, will together weigh on the repayment capacity of some borrowers. These risks are moderated by the bank's robust risk management.

However, we expect the bank's asset quality to remain solid, reflecting its disciplined and robust risk management, along with exposure to resilient large corporates. The bank's problem loans to gross loans ratio increased slightly to 4.4% as of September 2022 from 4.2% as of December 2021. The bank's problem loan coverage is materially higher than most domestic peers, with loan loss reserves representing 100% of problem loans as of September 2022 (100% at December 2021).

We expect that the authorities will allow the foreign exchange rate to continue to adjust at an only very gradual pace. However, should a material depreciation in the local currency happen (with a potential rapid convergence between official and unofficial market foreign exchange rates), it would pose some risk to asset quality. The bank's proportion of the bank's loans that were denominated in US dollars stood at 41% of as of September 2022 (36% as of December 2021). However, in case of a material depreciation, we expect the problem loans formation from Zenith's foreign currency loan book to be limited, given the bank's strong risk management (which includes extending US dollar loans mainly to borrowers that generate US dollars).

Similar to other Nigerian banks, Zenith's relatively high stock of restructured loans poses some risk to asset quality. The bank's reported restructured loans stood at 17% of gross loans as of September 2022 (19% as of December 2021). Restructured loans primarily included exposures to the oil and gas sector (77% of the stock) and to the public sector (15%). The balance of loans and advances that are not impaired but exhibit a significant increase in credit risk (classified in the Stage 2 bucket under IFRS9) was a relatively high 22.0% of gross loans as of September 2021).

Strong capitalisation, along with long US dollar position, provide some buffer in case of a potential material currency devaluation

We expect the bank's capitalisation to remain strong, reflecting resilient profitability and prudent dividend policy. As of June 2022, the bank's tangible common equity to risk-weighted assets was 15.3%, broadly stable compared to 15.4% in December 2021. We adjust the bank's TCE ratio for the risk weighting on the bank's holding of Nigerian government securities, in line with the Basel II framework. As of June 2022, Zenith's reported Tier 1 ratio was 20.0%.

We expect that the authorities will allow the foreign exchange rate to continue to adjust at an only very gradual pace. However, should a potential material devaluation in the local currency happen (with a potential rapid convergence of official and parallel market foreign currency exchange rates), it would pose some risk to capitalisation.

In the event of a material devaluation, we expect the bank's capitalisation ratio to decline noticeably but remain solid and above the minimum regulatory requirement. Zenith's long net open position in US dollars would generate some balance-sheet revaluation gains from a further depreciation in the local currency. However, we would expect the benefit from the long net open position to be outweighed by (i) inflation in the local currency value of risk-weighted assets associated with the portion of loans denominated in foreign currency, and (ii) an increase in provisioning charges related to problem loan formation as currency depreciation fuels inflation and constrains both the purchasing power and repayment capacity of borrowers.

Strong profitability underpinned by the bank's disciplined approach, robust franchise and strong ties with large corporate clients

We expect the bank's profitability to remain strong, but face pressure amid inflationary pressures and the challenging and weakening operating environment in Nigeria. The bank's robust profitability reflects its domestic corporate banking franchise. Zenith's net income to tangible assets ratio stood at 2.0% during the first nine months of 2022, compared to 2.6% during the full year 2021.

Net interest income will benefit from increasing policy rates, but the high cash reserve requirement in the country will continue to constrain the bank's ability to generate interest income. In the addition, the foreign currency rationing by the central bank will continue to constrain the access of local corporates to US dollars to conduct their businesses, and hence affect the bank's business generation. We expect provisioning needs to increase as the higher inflation and interest rates weigh on the repayment capacity of borrowers.

The bank's net interest margin was stable at 3.8% during the nine months of 2022, compared to 3.8% during the full year 2021. The contribution of non-interest income to total revenue was 43% during the first nine months of 2022. Zenith's cost to income ratio was 48% during the first nine months of 2022. The bank's cost of risk, computed as loan loss provisions divided by gross loans, increased to 1.3% during the first nine months of 2022 from 1.6% in 2021.

Solid and conservative management of foreign currency liquidity partly moderates the risk posed by foreign currency shortages in Nigeria

Foreign currency shortages faced by local Nigerian non-financial corporates (owing to foreign currency rationing by the central bank amid lower domestic oil crude production) pose some risk to the liquidity of Nigerian banks through their trade finance activities with those corporates, while the large amounts of foreign currency lent by the Nigerian banks to the central bank pose further liquidity risk to the banks.

However, Zenith's foreign currency liquidity position benefits from the bank's solid and conservative management of its foreign currency liquidity. The bank's foreign currency liquidity is supported by its dominant position and strong ties with large non-oil exporting corporates, which place their foreign currency revenues with the bank. Zenith's strong foreign currency liquidity management also reflects (a) the bank's requirement for significant US dollar cash cover before opening letter of credits for clients; (b) the bank's strict acceptance criterion for discounting to spot the US dollar forwards instruments held by its clients; as well as (c) the collection of transaction fees in US dollar (as opposed to local currency equivalent) for US dollar transactions.

In addition, the fact that the bank's cross border foreign currency obligations are primarily sourced from development financial institutions and international banks (as opposed to the more expensive eurobonds or other type of debt securities) helps materially reduce the bank's debt servicing costs in US dollars when compared to some local peers.

The relatively sizeable foreign currency assets lent by Zenith to the central bank (through foreign exchange derivatives including swaps) pose some roll-over risk in the context of foreign currency shortages in the country. However, the bank's track record of recalling some of these assets, along with its sound liquidity position in foreign currency, partly mitigates the aforementioned risk. As of June 2022, Zenith foreign currency liquid assets (including cash, interbank assets and investment securities) covered 39% of its total foreign currency liabilities (including debt, interbank liabilities and deposits).

We expect Zenith's balance sheet to remain predominantly deposit funded, with a low reliance on market funds. Customer deposits made up 80% of the bank's liabilities as of September 2022. The bank's high reliance on non-retail deposits (at 72% of total deposits), as of September 2022 poses some risk such deposits tend to be more confidence sensitive than retail deposits. However, the historical stickiness of those deposits, as well as the deep nature of the relationship between the bank and those entities, reduces the aforementioned risk. In addition, the diversified nature of these non-retail deposits in terms of segments (including corporate deposits, commercial & SME deposits, as well as public sector deposits) also mitigates the risk. The bank's market funding ratio was 12.2% as of September 2022, compared to 12.5% as of December 2021.

ESG considerations

Zenith Bank Plc's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 3 ESG Credit Impact Score



Source: Moody's Investors Service

Zenith Bank's ESG Credit Impact Score is neutral-to-low (**CIS-2**). This score reflects our view that the high probability of government support in case of need mitigates the potential risk that any environmental, social and governance factors pose to the bank's credit profile.

Exhibit 4 ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

Zenith Bank faces high environmental risks. Carbon transition risks reflect the bank's exposure to oil and gas lending, and to holdings of Nigerian government securities. Moreover, the important role played by hydrocarbons for the Nigerian economy and government revenue increases the vulnerability to carbon transition risks, potentially more broadly affecting the creditworthiness of the bank's counterparties. In line with peers, the bank is facing mounting business risks and stakeholder pressure to meet broader carbon transition risks. The bank also faces moderate portfolio exposure to physical climate risk, water management, and waste and pollution risks. Mitigants to environment risks include Zenith Bank's loan book diversification and exposure to the affluent portion of the population.

Social

Zenith Bank faces moderate social risks. Customer relations risk exposure is lower than the banking industry average, reflecting the fact that Nigerian banks have historically faced limited legal and regulatory actions related to mis-selling or mis-representation. High personal data risks are partly mitigated by a solid IT framework. Risks related to societal and demographic trends are also lower than those for global peers, with the bank benefitting from Nigeria's young population and an increase in digitalisation and financial inclusion.

Governance

Zenith Bank's governance risks are moderate. The bank has strong risk management practices that compare favourably with most local peers, as well as a track record of disciplined financial strategy. However, financial strategy and risk management risks for Zenith Bank are moderate, reflecting the constraints resulting from operating in a country with widespread corruption.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click <u>here</u> to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Government support

Given that Zenith's BCA is at the same level as the Nigerian government's issuer rating of Caa1, stable. The absence of government support uplift for the bank's deposit ratings, despite Moody's assessment of a 'high' likelihood of government support in case of need, reflects the positioning of the bank's BCA at the same level as the Caa1 sovereign rating.

Our assumption of a 'high' probability of support in case of financial stress is supported by (a) the bank's D-SIB status; (b) Zenith's importance to the local financial system, as the second-largest bank in Nigeria with a market share of 16% of total assets as of December 2021; and (c) the authorities' track record of supporting troubled banks in the past.

Counterparty Risk Ratings (CRRs)

Zenith's local currency CRR is positioned at B3/Not Prime and the foreign currency CRR is positioned at Caa1/Not Prime as it is constrained by the foreign currency country ceiling.

The local currency CRRs are positioned one notch above the Adjusted BCA of caa1, and therefore above the deposit ratings, reflecting our view that its probability of default is lower than that of deposits.

Counterparty Risk (CR) Assessment

Zenith's CR Assessment is positioned at B3(cr)/Not Prime(cr)

The CR Assessment is positioned one notch above the Adjusted BCA of caa1, and therefore above the deposit ratings, reflecting our view that its probability of default is lower than that of deposits. We believe senior obligations represented by the CR Assessment will be more likely preserved to limit contagion, minimise losses and avoid disruption of critical functions.

National scale rating (NSR)

Zenith's NSRs of Baa3.ng/NG-3 for local and foreign currency deposits are generated from the bank's global scale ratings through maps specific to each country. NSRs are not intended to rank credits across multiple countries; instead they provide a measure of relative creditworthiness within a single country (Nigeria in the case of Zenith). Our NSRs are given a two-letter suffix to distinguish them from our global scale ratings. For example, NSRs in Nigeria have the country abbreviation "ng."

Zenith's NSRs capture the bank's robust capital buffers, which provide a relatively thick buffer to withstand asset-quality deterioration; its high liquidity buffers, complimenting a predominantly deposit-funded balance sheet; and a strong and well-established franchise, which allows the bank to attract inexpensive deposits and to lend to high-credit-quality borrowers (relative to other Nigerian banks). These strengths are partially moderated by the bank's high proportion of more confidence-sensitive corporate deposits versus retail deposits.

Rating methodology and scorecard factors

Exhibit 5

Zenith Bank Plc

Macro Factors							
•	/ery /eak	100%					
Factor		Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency							
Asset Risk							
Problem Loans / Gross Loans		5.5%	caa2	\leftrightarrow	caa1	Expected trend	
Capital							
Tangible Common Equity / Risk Weighted Asse (Basel II)	ets	15.4%	b3	\leftrightarrow	b3	Expected trend	
Profitability							
Net Income / Tangible Assets		2.1%	b2	\leftrightarrow	b2	Expected trend	
Combined Solvency Score			caa1		b3		
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets		12.5%	caa1	\leftrightarrow	caa1	Deposit quality	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Asset	S	54.7%	b2	\leftrightarrow	b2	Quality of liquid assets	
Combined Liquidity Score			b3		b3	•	
Financial Profile					b3		
Qualitative Adjustments		Adjustment					
Business Diversification					0		
Opacity and Complexity					0		
Corporate Behavior					0		
Total Qualitative Adjustments					0		
Sovereign or Affiliate constraint					-		
BCA Scorecard-indicated Outcome - Range		b3 - caa2					
Assigned BCA		caa1					
Affiliate Support notching		0					
Adjusted BCA					caa1		

Instrument Class	Loss Given Failure notching	Additional notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Rating	1	0	b3	-	B3	Caa1
Counterparty Risk Assessment	1	0	b3 (cr)	-	B3(cr)	
Deposits	0	0	caa1	-	Caa1	Caa1
Senior unsecured bank debt	0	0	caa1	-	Caa1	(P)Caa1

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.

Source: Moody's Investors Service

Ratings

Exhibit 6

Category	Moody's Ratin		
ZENITH BANK PLC			
Outlook	Stable		
Counterparty Risk Rating -Fgn Curr	Caa1/NP		
Counterparty Risk Rating -Dom Curr	B3/NP		
Bank Deposits	Caa1/NP		
Baseline Credit Assessment	caa1		
Adjusted Baseline Credit Assessment	caa1		
Counterparty Risk Assessment	B3(cr)/NP(cr)		
Issuer Rating	Caa1		
Senior Unsecured MTN	(P)Caa1		
ST Issuer Rating	NP		
	(P)C		

Source: Moody's Investors Service

© 2023 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 CREDIT RATINGS AFFILIATES ARE THEIR 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 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 APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S 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 credit 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 chained 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 \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service 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, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at <u>www.moodys.com</u> under the heading "Investor Relations — Corporate Governance — Charter Documents - 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 credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

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

REPORT NUMBER 1355299

CLIENT SERVICES

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

MOODY'S INVESTORS SERVICE