

CREDIT OPINION

9 June 2023

Update



Send Your Feedback

RATINGS

BRAC Bank Limited

Domicile	Bangladesh
Long Term CRR	B1
Туре	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	B1
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

Lingxiao Shirley Zeng	+65.6398.8318
Analyst	
shirley.zeng@moodys.com	
Chong Jun (CJ) Wong Analyst	+65.6311.2616

Evan Chan +65.6398.8316 Associate Analyst shixuan.chan@moodys.com

chongjuncj.wong@moodys.com

Alka Anbarasu +65.6398.3712
Associate Managing Director
alka.anbarasu@moodys.com

BRAC Bank Limited

Update following rating downgrade

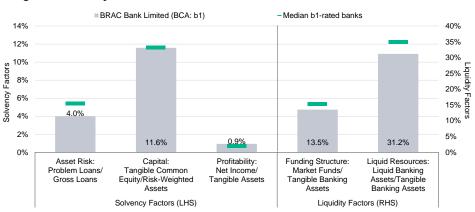
Summary

<u>BRAC Bank Limited</u>'s (BRAC Bank)'s B1 long-term deposit and issuer ratings are at the same level as <u>Government of Bangladesh</u>'s (B1 stable) rating. The ratings reflect the bank's better-than-peer-average asset quality and capitalization, which balances its moderate profitability. The ratings also reflect the bank's strong deposit franchise and access to funding, and good liquidity.

The B1 ratings aslso incorporate our assessment of a moderate probability of support from the government in times of need, which is underpinned by the bank's modest market share, and the government's propensity and ability to support the banking system.

On 31 May 2023, we downgraded BRAC Bank long-term deposit and issuer ratings to B1 from Ba3. We also confirmed the bank's b1 Baseline Credit Assessment (BCA).

Exhibit 1
Rating Scorecard - Key financial ratios



Source: Moody's Financial Metrics™

Credit strengths

- » Strong funding and liquidity, supported by its sizable distribution network
- » Good core capital ratio, the highest among the Bangladeshi banks we rate

Credit challenges

» Rising asset risk because of the lingering effects of the pandemic

Outlook

The stable outlook on the LT deposit and issuer ratings of BRAC Bank is in line with the stable outlook on Bangladesh's sovereign rating. The stable outlook also reflects our expectation that the bank's credit fundamentals will remain stable as gradual improvements in funding conditions will balance rising asset risks.

Factors that could lead to an upgrade

We are unlikely to upgrade BRAC Bank's LT deposit and issuer ratings and its BCA because these are already at the same level as the sovereign rating.

Factors that could lead to a downgrade

We could downgrade the bank's ratings and BCA if (1) there is a deterioration in the sovereign's credit profile and the bank's operating environment, or (2) there is significant deterioration in the bank's solvency such as a material increase in stressed loans, or weakening in the bank's funding structure.

Key indicators

Exhibit 2
BRAC Bank Limited (Consolidated Financials) [1]

	12-22 ²	12-21 ²	12-20 ²	12-19 ²	12-18 ²	CAGR/Avg. ³
Total Assets (BDT Million)	640,550.3	513,915.1	444,326.9	405,068.5	349,375.0	16.4 ⁴
Total Assets (USD Million)	6,238.9	5,993.2	5,242.8	4,771.4	4,164.2	10.64
Tangible Common Equity (BDT Million)	56,511.5	52,217.6	40,762.2	37,631.6	32,373.9	14.9 ⁴
Tangible Common Equity (USD Million)	550.4	609.0	481.0	443.3	385.9	9.3 ⁴
Problem Loans / Gross Loans (%)	4.0	4.3	3.4	4.4	3.6	3.9 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	11.6	13.1	10.7	12.0	11.6	11.8 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	22.9	20.8	17.6	24.8	21.0	21.4 ⁵
Net Interest Margin (%)	4.0	4.6	4.4	5.5	5.5	4.8 ⁵
PPI / Average RWA (%)	2.6	2.6	2.4	3.0	3.6	2.8 ⁶
Net Income / Tangible Assets (%)	1.0	0.9	0.9	1.1	1.6	1.1 ⁵
Cost / Income Ratio (%)	69.6	68.0	71.3	67.8	64.2	68.2 ⁵
Market Funds / Tangible Banking Assets (%)	13.5	10.0	8.2	9.7	12.3	10.75
Liquid Banking Assets / Tangible Banking Assets (%)	31.2	32.5	33.5	29.1	27.4	30.7 ⁵
Gross Loans / Due to Customers (%)	92.3	89.4	82.0	89.6	95.9	89.8 ⁵

^[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; LOCAL GAAP. [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 III 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

BRAC Bank Limited (BRAC Bank) was established in 2001 as a private commercial bank based in Bangladesh, listed on both the Dhaka Stock Exchange and the Chittagong Stock Exchange in 2007. The lender has developed a competitive advantage in the small and medium-sized enterprise (SME) segment and has established a strong domestic presence, supported by 187 branches, 1,000 agent banking outlets and 372 ATMs as of year-end 2022.

Moreover, the bank is a market leader in the mobile financial services industry with its subsidiary, bKash Limited (bKash), which provides electronic payment and remittance services.

As of year-end 2022, the bank was majority owned by BRAC (46%), which is the world's largest nongovernmental organization (NGO) in terms of employees, and supports various social and environmental causes. BRAC Bank is also one of the pioneers of microfinance, and its expertise provides the bank with a competitive advantage in the SME segment. As a result of its ownership by a nonprofit NGO, BRAC Bank is less susceptible to corporate governance issues faced by other private commercial banks that are owned by corporate entities or individuals.

As of year-end 2022, SMEs accounted for 46% of total loans, followed by corporates (36%) and consumer loans (19%).

Detailed credit considerations

Asset quality will remain better than peers despite rising risks

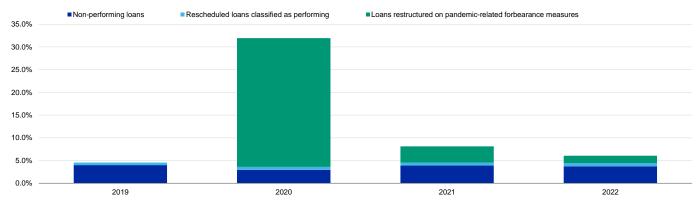
We expect BRAC Bank's asset quality to remain better than peers because of its limited stock of rescheduled and restructured loans and good loan loss coverage, although asset risks are increasing because of the bank's high loan growth of 28% in 2022 and expected loan growth of around 30% in 2023 and 2024 as the bank sees continued expansion of SME lending market, and looks to capture more market share in microfinance. According to the bank, new loans origination will be coming from sectors that have displayed good repayment behaviors. Nevertheless, we expect the high loan growth will increase the unseasoned risks in the loan portfolio, leading to increase in stressed loans in next 12 to 18 months, with the backdrop of high domestic inflation and import costs impacting borrowers in the SME segment.

BRAC Bank's standalone nonperforming loan (NPL) ratio remained stable at 3.7% as of year-end 2022 from 3.9% as of year-end 2021 as economic conditions recovered from the disruptions caused by the pandemic. The current NPL ratio is comparable with the prepandemic levels (see Exhibit 3) and remains low among the Bangladeshi banks that we rate. Its gross NPLs increased 14% in 2022 because of high NPL formation in the SME segment (53%) and small NPL formation in the corporate segment (7%), while the stock of NPLs fell in the consumer segment (-2%) from a year earlier.

Despite asset-quality deterioration in the SME and corporate segments, the bank has a long track record of low NPL ratio in this segment. As of year-end 2022, the NPL ratio for the SME segment was 3.6%, much lower than the 7%-11% level of its rated peers. Most of its SME borrowers operate essential services focusing on the domestic market in Bangladesh and are less susceptible to demand disruptions. At the same time, the bank's strong physical presence, with 457 dedicated SME offices spanning various locations in Bangladesh, has allowed more effective monitoring of and collections from its SME borrowers. The high share of SME loans also renders the bank less vulnerable to single-party concentration risks compared with its Bangladeshi peers.

Performing loans with modified payment terms on a standalone basis constituted 2.3% of gross loans as of year-end 2022, with 1.6% coming from loans restructured under pandemic-related forbearance measures and 0.7% from rescheduled loans. These loans will be classified as performing as long as borrowers service their loans based on the relaxed payment terms.

Exhibit 3
BRAC Bank's NPL ratio decreased in 2022



As of year-end 2022

- [1] The NPL ratio does not include rescheduled loans and restructured loans because of the pandemic.
- [2] Data is on a standalone basis.

Source: Moody's Investors Service

Loan loss reserves (consolidated) decreased to 93% of NPLs as of year-end 2022 from 102% a year earlier driven by an increase in NPLs. The ratio would decrease to 65% if we include the performing loans with modified payment terms in the denominator, but remains highest among the Bangladeshi banks we rate. We expect the bank to maintain adequate loan loss coverage.

The assigned b3 Asset Risk score takes into account the above considerations.

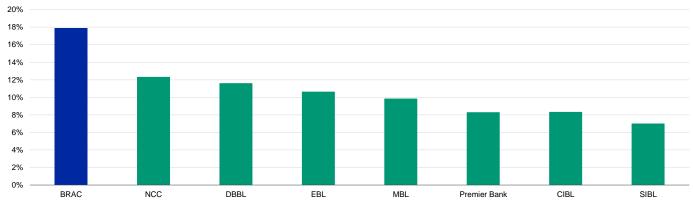
Capitalization will decrease but remain above that of peers

We expect BRAC Bank's capital to decrease from a high level as loan growth accelerates while profitability remains moderate in the next 12-18 months. The bank's Moody's-adjusted tangible common equity (TCE)/adjusted risk-weighted assets² under Basel III capital norms decreased to 11.6% as of year-end 2022 from 13.1% as of year-end 2021 because of high loan growth of 28% over the same period.

In 2021, the bank's capital was boosted by its subsidiary bKash's issuance of preference shares to Softbank, which added BDT7.4 billion to the bank's retained earnings. As a result, the bank's TCE ratio increased to 13.1% as of year-end 2021 from 10.7% as of year-end 2020.

The bank's reported Common Equity Tier 1 (CET1) capital ratio was 17.9% as of year-end 2022. Its CET1 capital ratio was the highest among its peers we rate as of year-end 2022 (see Exhibit 4).

Exhibit 4 BRAC Bank's CET1 capital ratio is the highest among its peers we rate



As of year-end 2022 Source: Moody's Investors Service

We expect BRAC Bank to continue to pursue a relatively conservative dividend payout policy, which will support capital retention. In 2022, the bank approved the payout of 15% of its capital as dividends for 2021, with 7.5% in the form of cash and 7.5% in the form of stock. Cash dividends amounted to 22% of net profit earned in 2021.

The b2 Capital score reflects the above considerations.

Profitability will improve if lending rate cap is lifted

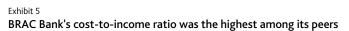
BRAC Bank's profitability will improve moderately in the next 12-18 months if lending rate cap is lifted, because expansion in the net interest margin will be partially offset by an increase in credit costs, while operating costs remain high.

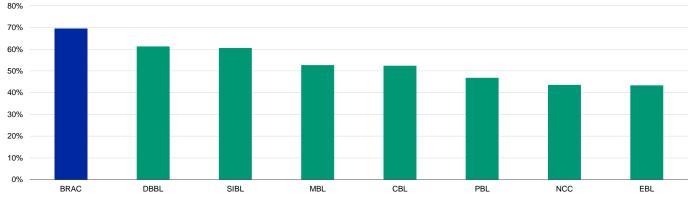
The bank's return on tangible assets was largely stable at 1.0% in 2022 compared with 0.9% in 2021, because of increases in cost of deposits and operating expenses that offset lower credit costs. Its annualized loan loss provision as a percentage of gross loans decreased to 0.5% as of year-end 2022 from 0.9% as of year-end 2021, although mainly driven by the 27% increase in the gross loans base. We expect credit costs to increase somewhat as the bank's new loans season.

The bank's interest rate spread has traditionally been among the highest in the industry, supported by the high proportion of loans to the higher-yielding SME segment. However, this advantage was curtailed by the lending rate cap of 9% imposed by Bangladesh Bank since 1 April 2020.

The bank's net interest margin narrowed to 4.0% in 2022 from 4.6% in 2021, driven by an increase in costs of deposits because the bank raised more term deposits during the period. Cost of funding increased to 2.7% in 2022 from 2.0% in 2021. Nevertheless, we expect the interest rate spread and net interest margin to remain above those of its peers and improve somewhat if cap on lending rate is lifted, given its easier access to low-cost deposits than that of peers and focus on the higher-yielding SME segment. The bank's net interest margin of 4.6% in 2021 was higher than the 3.7% asset-weighted average of other Bangladeshi banks we rate.

BRAC Bank's subsidiary bKash will continue to spend heavily on marketing, promotions and IT infrastructure to expand its market share in the mobile payment market. At the same time, the bank will likely increase its marketing and personnel costs to further grow its SME lending business. As a result, BRAC Bank's consolidated operating expenses will remain high, straining its profitability. In 2022, the bank's consolidated cost-to-income ratio increased to 70% from 68% in 2021, and remained the highest among rated Bangladeshi banks.





As of year-end 2022 Sources: Moody's Investors Service and banks

The Profitability score of b2 reflects the above considerations.

Stable funding and liquidity, backed by an established domestic franchise

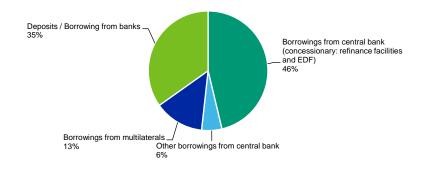
We expect BRAC Bank to retain its funding competitiveness in the next 12-18 months, supported by its established domestic franchise. The bank is primarily funded by deposits which were 70% of the tangible banking assets as of year-end 2022. Loan-to-deposit ratio

increased to 92% as of year-end 2022 from 89% as of year-end 2021, because loan growth outpaced deposit growth. Customer deposits increased by 23%, while gross loans increased by 28% in 2022.

The bank's domestic franchise is supported by a sizable network of branches and ATMs, a leading mobile platform (bKash) and a growing agent banking network. As a result, the bank has strong access to current and savings accounts, which tend to be stickier than term deposits and borrowings. Its current and savings accounts as a percentage of total customer deposits was at a good level of 47% as of year-end 2022, although down from 52% a year earlier.

The bank has moderate reliance on confidence-sensitive market funding. Market funds as a percentage of tangible banking assets increased to 14% as of year-end 2022 from 10% a year earlier. Around 46% of the market funds as of year-end 2022 were concessional funding from the local central bank, which is disbursed to eligible domestic exporters and SMEs, while another 13% were from multilateral institutions like the <u>Asian Development Bank</u> (Aaa stable) and <u>International Finance Corporation</u> (Aaa stable)³. The remaining 35% of the market funds were other borrowings from the central bank or other financial institutions (see Exhibit 5).

Exhibit 6
BRAC Bank's market funds comprised mainly borrowings from Bangladesh Bank and international finance organizations



As of year-end 2022 Source: Moody's Investors Service

The adjusted Funding score of ba2 reflects BRAC Bank's good deposit franchise, as well as the stable funding provided by the local central bank and multilateral institutions.

BRAC Bank maintains a robust liquidity buffer. The bank's liquid assets, excluding bKash customers' mobile wallets held in trust accounts, were 20% of tangible assets as of year-end 2022 and year-end 2021, and mostly comprised interbank assets and government securities. On a consolidated basis, BRAC Bank's liquid assets as a percentage of tangible assets decreased slightly to 31% in year-end 2022 from 32% in year-end 2021.

The Liquid Resources score of b2 reflects our expectation that the bank's liquidity will moderate as the bank pursues high loan growth in the next 12-18 months.

BRAC Bank's BCA is based on Bangladesh's Weak - macro profile

BRAC Bank operates mainly in Bangladesh, which has a Weak - macro profile.

Bangladesh's economy is supported by the country's robust growth prospects and moderate debt burden against its narrow government revenue base that restricts fiscal flexibility and institutional weaknesses that constrain competitiveness. While the globally competitive ready-made garments (RMG) industry will continue to contribute significantly to GDP, exports and incomes over the long term, and high commodity prices have weakened Bangladesh's external position and increased liquidity pressures. Meanwhile, access to concessional financing mitigates risks from a higher government debt burden.

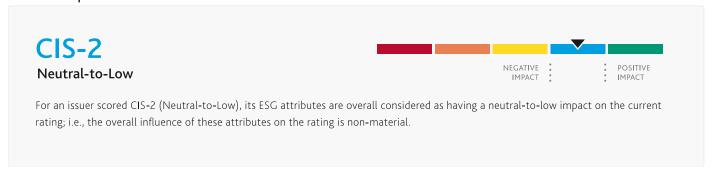
The banking system is characterized by a high degree of market fragmentation with persistent weaknesses in underwriting standards, a high credit concentration in domestic corporates and growing trend of regulatory forbearance, which constitute weaknesses in credit conditions despite moderate growth in credit relative to GDP.

ESG considerations

BRAC Bank Limited's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 7

ESG Credit Impact Score



Source: Moody's Investors Service

BRAC Bank Limited's (BRAC Bank) ESG Credit Impact Score is neutral-to-low (**CIS-2**), reflecting the limited credit impact of environmental and social risk factors on the ratings to date, as well as the bank's good governance framework.

ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

BRAC Bank faces moderate environmental risks, specifically from carbon transition risk and waste and pollution because of its exposures to industries such as readymade garment and other manufacturing. The country's very high risk of seasonal flooding could also have negative impact on the economic activities of the bank's borrowers. However, the risks are partially mitigated by the bank's diversified loan book and efforts to expand green financing.

Social

BRAC Bank faces moderate social risks related to customer relations, tightening regulatory and compliance standards, and the impact of potential technological disruptions associated with an increasingly digitally active customer base. However, the bank is generally focused on intermediation with simpler product ranges with few identified conduct issues and has been subject to looser regulatory scrutiny on consumer protection. Furthermore, the bank will benefit from Bangladesh's favorable demographics.

Governance

BRAC Bank faces neutral to low governance risks, and its risk management and compliance functions are in line with industry best practices. The bank is 46% owned by BRAC, a nongovernmental organization, and the governance risks associated with ownership concentration are mitigated by the majority presence of independent directors on the board, and the regulated nature of the bank. The bank also has a strong management credibility and track record of maintaining good capital and liquidity buffers.

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 here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Support and structural considerations

Government support considerations

BRAC Bank's b1 long-term foreign- and local-currency deposits and issuer ratings are in line with the bank's b1 BCA, based on our assumption of a moderate probability of government support. Our support assumption is based on the bank's small market share, but balanced by the government's willingness and ability to support the bank.

Counterparty Risk (CR) Assessment

BRAC Bank's CR Assessment is positioned at Ba3(cr)/NP(cr)

The CR Assessment, before government support, is positioned one notch above BRAC Bank's Adjusted BCA of b1. We then assign government support assumptions, in line with our support assumptions on deposits and senior unsecured debt. Such assignments reflect our view that any support provided by governmental authorities to a bank, which benefits senior unsecured debt or deposits, is very likely to benefit operating activities and obligations reflected by the CR Assessments as well. Such a view is consistent with our belief that governments are likely to maintain the banks' operations as a going concern to reduce contagion and preserve the banks' critical functions.

Counterparty Risk Ratings (CRRs)

BRAC Bank's local- and foreign-currency CRRs are positioned at Ba3/NP

Bangladesh is a nonoperational resolution regime. For nonoperational resolution regime countries, the starting point for the CRRs is one notch above the bank's Adjusted BCA, to which we then typically add the same notches of government support as applied to the CR Assessment.

Methodology and scorecard

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our scorecard may significantly differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 9

BRAC Bank Limited

Macro Factors						
Weighted Macro Profile Weak -	100%					
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	4.0%	b2	\leftrightarrow	b3	Quality of assets	Unseasoned risk
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	11.6%	b2	\leftrightarrow	b2	Risk-weighted capitalisation	
Profitability						
Net Income / Tangible Assets	0.9%	b2	\leftrightarrow	b2	Expected trend	
Combined Solvency Score		b2		b2		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	13.5%	b1	\leftrightarrow	ba2	Deposit quality	Market funding quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	31.2%	b1	\leftrightarrow	b2	Stock of liquid assets	
Combined Liquidity Score		b1		ba3		
Financial Profile				b1		
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				ba3 - b2		
Assigned BCA				b1		
Affiliate Support notching				0		
Adjusted BCA				b1		

Instrument Class	Loss Given Failure notching	Additional Preliminary Rating notching Assessment		Government Support notching	Local Currency Rating	Foreign Currency	
	raiture notching	Hoteling	Assessment	Support notening	Katilig	Rating	
Counterparty Risk Rating	1	0	ba3	-	Ba3	B1	
Counterparty Risk Assessment	1	0	ba3 (cr)	-	Ba3(cr)		
Deposits	0	0	b1	-	B1	B1	
Senior unsecured bank debt	0	0	b1	-	B1	B1	

^[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 10

Category	Moody's Rating
BRAC BANK LIMITED	
Outlook	Stable
Counterparty Risk Rating -Fgn Curr	B1/NP
Counterparty Risk Rating -Dom Curr	Ba3/NP
Bank Deposits	B1/NP
Baseline Credit Assessment	b1
Adjusted Baseline Credit Assessment	b1
Counterparty Risk Assessment	Ba3(cr)/NP(cr)
Issuer Rating	B1
ST Issuer Rating	NP
Source: Moody's Investors Service	

Endnotes

1 Rescheduled loans refer to NPLs that were classified as performing after the Bangladesh Bank granted approvals for banks to amend the payment terms and interest rates. This is a case-by-case restructuring done outside of the pandemic-related payment tenor extension schemes.

- 2 Bangladesh government securities are adjusted with 100% risk weight per our methodology.
- <u>3</u> The ratings are long-term issuer ratings and senior unsecured debt ratings.

© 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 ORLIGATIONS 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 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

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CR 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 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, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — 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 1369433

