

CREDIT OPINION

7 May 2024

Update

Send Your Feedback

RATINGS

National Bank of Umm Al-Qaiwain (PSC)

Domicile	United Arab Emirates
Long Term CRR	Baa1
Type	LT Counterparty Risk Rating - Fgn Curr
Long Term Deposit	Baa2
Type	LT Bank Deposits - Fgn Curr
Outlook	Stable

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

Francesca Paolino +971.4.237.9568
Analyst
francesca.paolino@moodys.com

Azhar Bouzidi +971.4.503.9835
Ratings Associate
azhar.bouzidi@moodys.com

Nitish Bhojnarwala +971.4.237.9563
Senior Vice President
nitish.bhojnarwala@moodys.com

Nondas Nicolaidis +357.2569.3006
VP-Sr Credit Officer
nondas.nicolaidis@moodys.com

National Bank of Umm Al-Qaiwain (PSC)

Update following rating affirmation

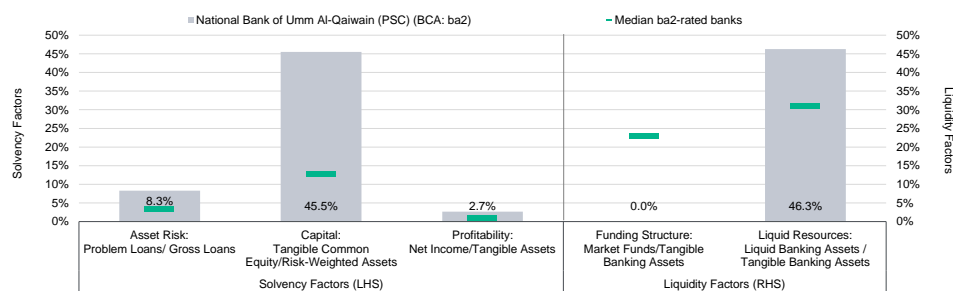
Summary

National Bank of Umm Al-Qaiwain (PSC)'s (NBQ) Baa2 long-term deposit ratings reflect the bank's ba2 Baseline Credit Assessment (BCA) and three notches of government support uplift from the [Government of the United Arab Emirates](#) (Aa2 stable) based on our expectation of a very high probability of government support. Our assessment reflects the Government of Umm Al Qaiwain's 30% stake in NBQ and the UAE authorities' track record of support for the country's banks in case of need.

NBQ's ba2 BCA reflects the bank's sound core profitability, which reflects its corporate franchise, and strong capital and liquidity buffers. These strengths are moderated by the bank's weak asset quality with high exposure to sector and borrower concentrations, and low loan loss reserves, concentrated funding profile, as well as its limited business diversification and the execution risks associated with the bank's medium-term growth plan.

Exhibit 1

Rating Scorecard - Key financial ratios



Problem loans and profitability ratios are the weaker of the three-year averages and the latest reported figures; the capital ratio is the latest reported figure; and the funding structure and liquid assets ratios are the latest year-end figures.

Source: Moody's Ratings

Credit strengths

- » Capital buffers expected to remain strong
- » Profitability benefits from solid margins and efficient operations
- » Liquidity buffers combined with low market funding reliance
- » Very high probability of support from the UAE government in case of need

Credit challenges

- » Weak asset quality exposed to high borrower and sector concentrations
- » Concentrated funding book
- » Limited business diversification
- » Medium-term growth plan entails execution risks

Outlook

The stable outlook on NBQ's long-term deposit ratings reflects our expectation that pressure on the bank's weak asset quality and funding concentration risks will be balanced by strong liquidity and capital buffers.

Factors that could lead to an upgrade

Upward pressure on NBQ's long-term ratings could emerge from a significant improvement in operating conditions, leading to improvements in the bank's asset quality and profitability, and/or achieving diversification of its revenues from less volatile segments, while maintaining strong capital and liquidity buffers. Upward pressure could also result from the bank building a track record of management execution of a consistent growth strategy and/or an improvement in the risk management and control framework.

Factors that could lead to a downgrade

Downward pressure on NBQ's long-term ratings could materialise if there is a significant deterioration in operating conditions, leading to a weakening of the bank's asset quality, profitability and/or capitalisation. Downward pressure on NBQ's ratings could also materialise if the bank fails to upgrade its risk management framework while implementing its growth strategy.

Key indicators

Exhibit 2

National Bank of Umm Al-Qaiwain (PSC) (Consolidated Financials) [1]

	12-23 ²	12-22 ²	12-21 ²	12-20 ²	12-19 ³	CAGR/Avg. ⁴
Total Assets (AED Million)	14,777.2	13,605.1	13,142.0	13,546.0	14,297.6	0.8 ⁵
Total Assets (USD Million)	4,023.5	3,704.4	3,578.0	3,687.9	3,892.5	0.8 ⁵
Tangible Common Equity (AED Million)	5,252.7	4,943.3	4,678.1	4,561.8	4,558.0	3.6 ⁵
Tangible Common Equity (USD Million)	1,430.2	1,346.0	1,273.6	1,241.9	1,240.9	3.6 ⁵
Problem Loans / Gross Loans (%)	6.8	9.5	8.6	10.0	8.7	8.7 ⁶
Tangible Common Equity / Risk Weighted Assets (%)	45.5	46.5	42.0	41.0	38.1	42.6 ⁷
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	9.0	11.8	11.9	16.2	15.3	12.8 ⁶
Net Interest Margin (%)	4.3	3.0	2.1	2.4	3.5	3.1 ⁶
PPI / Average RWA (%)	5.1	3.1	2.0	2.6	4.0	3.4 ⁷
Net Income / Tangible Assets (%)	3.4	2.7	2.0	1.6	3.0	2.5 ⁶
Cost / Income Ratio (%)	23.1	31.6	37.5	33.0	22.6	29.6 ⁶
Market Funds / Tangible Banking Assets (%)	0.0	0.0	0.0	1.5	0.0	0.3 ⁶
Liquid Banking Assets / Tangible Banking Assets (%)	46.3	47.3	44.7	38.5	37.5	42.8 ⁶

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.moody's.com> for the most updated credit rating action information and rating history.

Gross Loans / Due to Customers (%)

82.2

83.7

89.5

97.2

95.6

89.6⁶

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; IFRS. [3] Basel II; IFRS. [4] May include rounding differences because of the scale of reported amounts. [5] Compound annual growth rate (%) based on the periods for the latest accounting regime. [6] Simple average of periods for the latest accounting regime. [7] Simple average of Basel III periods.

Sources: Moody's Ratings and company filings

Profile

National Bank of Umm Al-Qaiwain (NBQ) is a public shareholding company incorporated in the Emirate of Umm Al Qaiwain in the UAE in 1982. The bank is engaged in providing retail, corporate and Islamic banking services through a network of 11 branches, ATMs, CCDMs, mobile banking and online banking in the UAE.

As of December 2023, the bank reported AED14.8 billion of total assets (\$4.0 billion). The domestic market share of NBQ is at 0.4% as of December 2023. The bank's largest shareholder is the Government of Umm Al Qaiwain, which owns 30% of its total shares.

Detailed credit considerations

Weak asset quality exposed to high borrower and sector concentrations

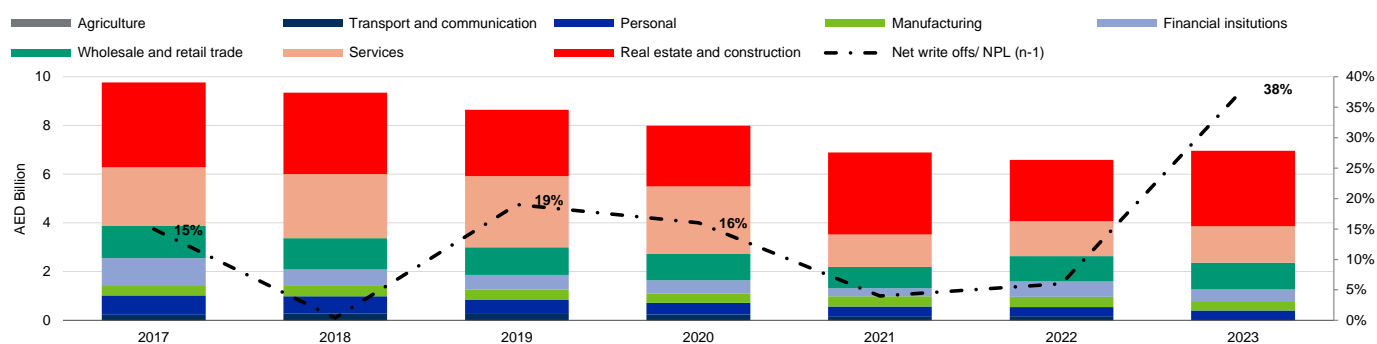
We expect the bank's borrower and sector concentration to continue to pose risks to its asset quality. Furthermore, growth plans could further increase asset risk, creating a new unseasoned portion in the loan book.

NBQ has significant exposure to the cyclical real estate and construction sectors, with combined loans accounting for 43% of total loans as of December 2023 (38% at year-end 2022), one of the highest reported among the UAE banks. This exposes NBQ to the volatile real estate market in the UAE.

We also note NBQ's exposure to the real estate and construction sectors substantially declined in 2022 and then increased during 2023 (up by 24% year-over-year). We expect the bank to reduce or limit their exposure to real estate and construction in the future to comply with updated real estate regulation from Central Bank.¹

Exhibit 3

Loan book breakdown and write-off evolution



Source: Bank's financial statements

The bank's loan book shrunk by 33% between year-end 2017-2022 because NBQ cleaned its wholesale banking portfolio - mainly real estate and construction, financial institutions (FI), and also services. In 2023 it returned to growth reporting an increase in the loan book by 9% mainly driven by real estate and construction exposure growth. The bank's write off activity was especially high in 2019 and 2020 (Exhibit 3), then it normalized in 2021-2022, and went back up in 2023 with a peak net write-off at 38% of previous year NPL.

The bank's problem loans to gross loans improved to 6.8% as of December 2023 from 9.5% in YE 2022, mainly driven by high write offs and marginally by a denominator effect - as gross loans grew by 9% in full-year 2023. Nonetheless, the ratio still compares unfavourably with its UAE peers (average NPL ratio at 4.3%).

The bank's reported cost of risk was at 65 basis points (bps) as of December 2023, lower than pre-pandemic levels. NBQ's loan loss reserves/problem loans was 37% as of December 2023, down from 61% as of December 2018 and significantly lower than its peers, reducing the bank's additional buffers to absorb potential losses.

Capital buffers expected to remain strong

We expect NBQ's capitalisation to remain strong, but to decline, as the bank implements its growth strategy.

As of December 2023, Moody's tangible common equity (TCE)/risk-weighted assets was a high 45.5% at NBQ (46.5% as of December 2022), up from an already high 35% as of 2018, because the denominator declined as the loan book shrunk (during 2018-2022).

NBQ will continue to meet capital requirements through retained profit, with a 50% dividend policy payout in recent years with the exception of 2020 when the bank paid 70% of its net profits to the shareholders. Dividend payout was at 60% on 2023 net profits.

As of the end of December 2023, the bank's reported a Basel III Tier 1 ratio of 41.6%, total capital adequacy ratio of 42.8% and shareholders' equity/total assets of 38.2%, which were all well above the ratios of the UAE local peers and adequate for its risk profile.

Profitability benefits from solid margins and efficient operations

We expect NBQ's profitability to remain sound in the outlook period. NBQ's solid profitability is supported by the bank's corporate franchise, which is underpinned by the bank's strong ties with the UAE corporate groups and families. However, its growth plan could hurt bottom-line profitability if provisions increase.

Moody's net interest margin at NBQ increased to 4.3% in full-year 2023 from 3.0% in full-year 2022 because gross yields increased faster than funding costs — 2.1% in 2023 compared with 0.8% in full year 2022— well above pre-pandemic levels. Cost of funds at NBQ remains lower than peers as the bank's shareholders' equity to total assets ratio is four times the local average (38% versus 11% as of December 2023), and this in turn supports NBQ's solid margins.

The bank's cost-to-income ratio was 23.1% in 2023, considerably lower when compared to 31.6% in full-year 2022. The decline in the cost-to-income ratio was mainly driven by significantly higher operating income offsetting slightly higher operating expenses as the bank continues to invest in its digital proposition.

In full-year 2023 the bank reported loan-loss provision (LLP) to pre-provision income (PPI) at 8.4%, lower than pre-pandemic levels (2018-2019). In 2022 and 2021 the bank's ratio was negative (LLP to PPI at -7.0% in 2022 and -19% in 2021) accounting for the bank's one-off recoveries.

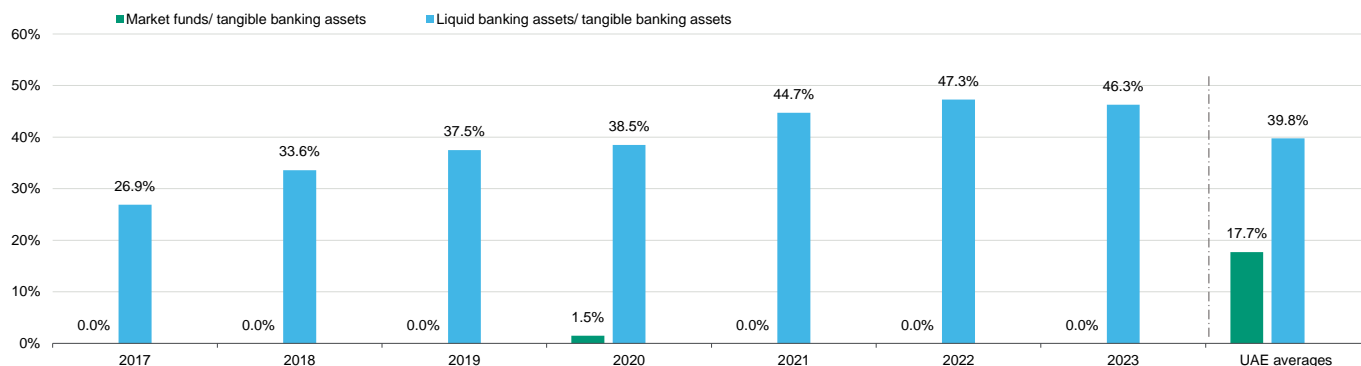
As a result of the above, NBQ reported a net income to tangible assets of 3.4% in full-year 2023, up from 2.7% in full-year 2022.

High liquidity buffers combined with low market funding reliance

NBQ's assets are mainly funded by customer deposits, constituting 96% of non-equity funding as of December 2023. The bank has a high reliance on high cost time deposits, at 63% of total customer accounts as of December 2023, although this improved from the 2018 level (76%). The funding book also exhibits high concentration, with 47% of the deposits sourced from related parties as of December 2023, reflecting also the corporate nature of NBQ's franchise.

Exhibit 4

Liquid assets and market funds



Source: Banks financial statements

However, market funding reliance remained zero as of December 2023. The ratio of net loans to customer deposits was broadly stable at 80% as of December 2023 (79% at year-end in 2022) as loan book growth at 12% offset deposit growth which was at 11%.

NBQ's liquid buffers mitigate the concentration risk in NBQ's funding profile. The bank's liquid banking assets/tangible banking assets further increased to 46.3% as of December 2023, from 33.6% in 2018 (Exhibit 4). We expect the bank's liquid assets to decline as the bank implements its medium-term growth plan, but to remain solid.

Limited business diversification

The negative adjustment for Business Diversification reflects NBQ's limited business diversification constraining its credit strength, since it increases the bank's sensitivity to stress in a single business line. NBQ's strong reliance on medium-sized corporate banking limits its income diversification and increases earnings volatility.

Medium-term growth plan entails execution risks

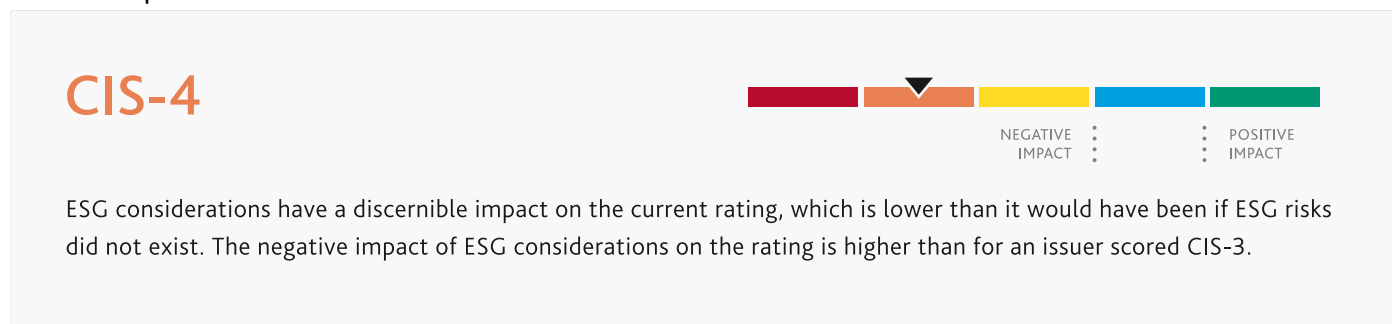
The negative adjustment for Corporate Behavior reflects the execution risks of the bank's growth plan to diversify from its sector concentration in real estate. The lack of a track record combined with existing risk management and control framework, constrain the bank's credit strengths and create uncertainties regarding the evolution of the bank's risk profile.

ESG considerations

National Bank of Umm Al-Qaiwain (PSC)'s ESG credit impact score is CIS-4

Exhibit 5

ESG credit impact score



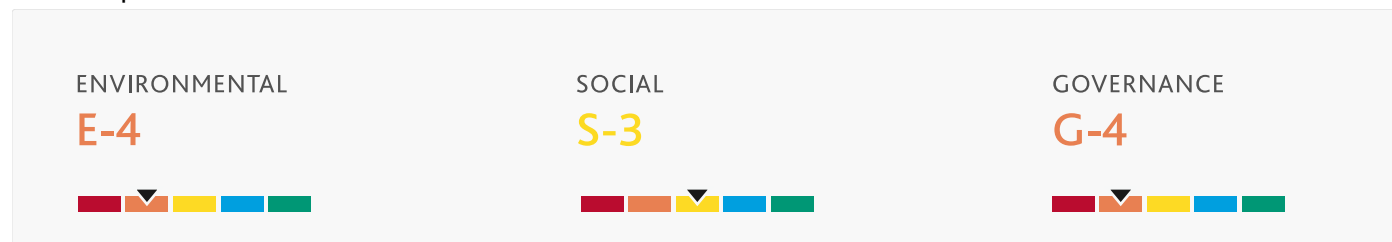
Source: Moody's Ratings

National Bank of Umm Al-Qaiwain's **CIS-4** indicates a material impact of ESG considerations on the bank's ratings, mostly because of the bank's high governance risks incorporated in a one-notch negative rating adjustment for corporate behavior. The bank's corporate

governance risks mainly stems from lack of track record of growth strategy execution combined with risk management framework in place. Environmental and social factors have a limited impact on the bank's credit profile to date.

Exhibit 6

ESG issuer profile scores



Source: Moody's Ratings

Environmental

National Bank of Umm Al-Qaiwain faces relatively high exposure to environmental risks, mainly because of carbon transition risk. Although the bank has limited direct lending exposure to carbon-intensive sectors, the contribution of the hydrocarbon industry to the UAE economy (although low hydrocarbon production costs provide a degree of insulation to carbon transition), as well as its dependence on desalinated water and exposure to rising sea levels, increases its vulnerability to environmental risks, potentially affecting the creditworthiness of the bank's counterparties.

Social

National Bank of Umm Al-Qaiwain faces moderate social risks, mostly related to customer relations and associated regulatory and litigation risks. Demographic trends have favored financial inclusion and adaptation innovation of the population in the city centers. National Bank of Umm Al-Qaiwain and UAE banks are generally focused on the intermediation of simple, plain vanilla products. Less prone to mis-selling.

Governance

National Bank of Umm Al-Qaiwain faces high governance risks, reflecting lack of track record of strategy execution in recent years and current risk management framework in place. Government of Umm al Qaiwain owning around one-third of the bank does not result in incremental governance risks because of the country's developed institutional framework and is also mitigated by the composition of the Board which is by the majority independent. The bank is a publicly-listed firm and provides timely external reporting.

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

Very high likelihood of government support in case of need

NBQ's Baa2 long-term deposit ratings take into consideration the bank's ba2 BCA and three notches of government support uplift from the UAE government based on our expectation of a very high probability of government support. Our assessment reflects the Government of Umm Al Qaiwain's 30% stake in NBQ and the UAE authorities' track record of support for the country's banks in case of need.

Source of facts and figures cited in this report

Unless noted otherwise, we have sourced data related to systemwide trends and market shares from the central bank. Bank-specific figures originate from banks' reports and Moody's Banking Financial Metrics. All figures are based on our own chart of account and may be adjusted for analytical purposes. Please refer to the document [Financial Statement Adjustments in the Analysis of Financial Institutions](#), published on 1 February 2024.

Methodology and scorecard

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgement. When read in conjunction with our research, a fulsome presentation of our judgement is expressed. As a result, the output of our scorecard may materially 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 7

National Bank of Umm Al-Qaiwain (PSC)

Macro Factors							
Weighted Macro Profile		Strong - 100%					
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	8.3%	ba3	↑	b3	Single name concentration	Sector concentration	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - fully loaded)	45.5%	aa3	↔	a2	Expected trend	Risk-weighted capitalisation	
Profitability							
Net Income / Tangible Assets	2.7%	aa3	↓	baa3	Expected trend	Loan loss charge coverage	
Combined Solvency Score		a3		ba1			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	0.0%	aa3	↔	baa1	Deposit quality	Expected trend	
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	46.3%	a2	↓	a3	Expected trend		
Combined Liquidity Score		a1		baa1			
Financial Profile				baa3			
Qualitative Adjustments				Adjustment			
Business Diversification				-1			
Opacity and Complexity				0			
Corporate Behavior				-1			
Total Qualitative Adjustments				-2			
Sovereign or Affiliate constraint				Aa2			
BCA Scorecard-indicated Outcome - Range				ba1 - ba3			
Assigned BCA				ba2			
Affiliate Support notching				0			
Adjusted BCA				ba2			

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	ba1	3	Baa1	Baa1
Counterparty Risk Assessment	1	0	ba1 (cr)	3	Baa1(cr)	
Deposits	0	0	ba2	3	Baa2	Baa2

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

Source: Moody's Ratings

Ratings

Exhibit 8

Category	Moody's Rating
NATIONAL BANK OF UMM AL-QAIWAIN (PSC)	
Outlook	Stable
Counterparty Risk Rating	Baa1/P-2
Bank Deposits	Baa2/P-2
Baseline Credit Assessment	ba2
Adjusted Baseline Credit Assessment	ba2
Counterparty Risk Assessment	Baa1(cr)/P-2(cr)

Source: Moody's Ratings

Endnotes

- 1 The UAE central bank has recently updated regulation which helps limit domestic banks' exposure to the historically volatile real estate sector. The regulator has capped exposure in the sector to 30% of each bank's credit risk-weighted assets, which includes off-balance sheet items and investments in real estate securities other than loans.

© 2024 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 OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") 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 MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS 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 MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 OR OTHERWISE MAKES AVAILABLE ITS MATERIALS 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 MATERIALS 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 MATERIALS 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. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 Materials.

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

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

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

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. 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.moody's.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V., I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Clasificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

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 India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

CLIENT SERVICES

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