

## **CREDIT OPINION**

1 December 2023

## **Update**



#### RATINGS

#### **Emirates NBD Bank PJSC**

Domicile	Dubai, United Arab Emirates
Long Term CRR	A1
Туре	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	A2
Туре	Senior Unsecured - Fgn Curr
Outlook	Stable
Long Term Deposit	A2
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**

Badis Shubailat +971.4.237.9505 AVP-Analyst

badis.shubailat@moodys.com

Mohamed Salah +971.4.237.9546 Khatteche

Lead Ratings Associate

mohamedsalah.khatteche@moodys.com

Nondas Nicolaides +357.2569.3006

VP-Sr Credit Officer

nondas.nicolaides@moodys.com

Nitish Bhojnagarwala +971.4.237.9563

Senior Vice President

nitish.bhojnagarwala@moodys.com

# **Emirates NBD Bank PJSC**

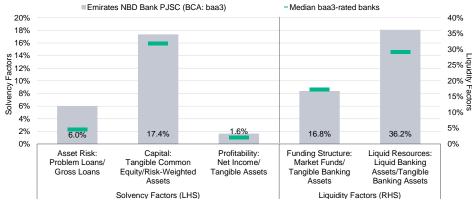
Update to credit analysis

## Summary

Emirates NBD PJSC's (ENBD) A2 long-term deposit ratings incorporate a four-notch uplift from the bank's baa3 Baseline Credit Assessment (BCA) and Adjusted BCA. This uplift is based on our assessment of a very high likelihood of support from the Government of United Arab Emirates (Aa2 stable) in case of need.

ENBD's baa3 BCA reflects its solid capitalisation and strong profitability supported by the bank's large and growing retail franchise combined with strong ties with the Dubai government and large Dubai-based corporates. ENBD's stable funding, reflecting an established domestic franchise combined with strong capital markets access, also supports its standalone profile. These strengths are balanced by the bank's high credit concentration particularly high related party exposures and relatively high stock of problem loans mitigated to some extent by the high level of coverage.

Exhibit 1
Rating Scorecard - Key financial ratios



In Exhibit 1, the ratios represent our Banks methodology scorecard ratios. The problem loans and profitability ratios are the weaker of the three-year averages and the latest reported figures, b) the capital ratio is the latest reported figure, c) the funding structure and liquid asset ratios are latest year-end figures.

Source: Moody's Financial Metrics

## **Credit strengths**

- » Solid capitalisation
- » Strong ties with Dubai government and large Dubai corporates, combined with large retail franchise, supports strong profitability
- » Established domestic franchise and strong capital markets access drive stable funding and liquidity
- » Very high likelihood of government support if needed

## **Credit challenges**

- » Relatively weak asset quality
- » High credit concentration particularly to related party which remains high despite recent declines

### **Outlook**

The stable outlook balances Moody's assessment that the current rating level appropriately captures the bank's credit profile and balances its underlying risks. It also supports Moody's view that the economic conditions in the UAE will remain supportive of the bank's strong profitability, capital and liquidity buffers over the outlook period.

## Factors that could lead to an upgrade

Upward pressure on ENBD's ratings could develop through (1) significant reduction in problem loan ratio combined with a significant and sustained reduction in its credit concentrations and (2) further improvement in profitability which is sustainable and in turn improves capital through increasing profit retention.

## Factors that could lead to a downgrade

Downward pressure on ENBD's ratings could develop from (1) increases in the loans to related parties and/or (2) material deterioration in asset quality dampening profitability and/or (3) high credit growth pressuring capitalisation.

## **Key indicators**

Exhibit 2
Emirates NBD Bank PJSC (Consolidated Financials) [1]

	09-23 <sup>2</sup>	12-22 <sup>2</sup>	12-21 <sup>2</sup>	12-20 <sup>2</sup>	12-19 <sup>2</sup>	CAGR/Avg.3
Total Assets (AED Million)	835,562.9	741,961.6	687,436.6	698,087.5	683,320.6	5.5 <sup>4</sup>
Total Assets (USD Million)	227,484.7	202,023.5	187,156.9	190,051.4	186,031.2	5.5 <sup>4</sup>
Tangible Common Equity (AED Million)	92,503.4	79,587.0	69,135.7	67,422.2	65,389.5	9.74
Tangible Common Equity (USD Million)	25,184.4	21,670.2	18,822.4	18,355.4	17,802.0	9.74
Problem Loans / Gross Loans (%)	5.5	6.0	6.3	6.2	5.6	5.9 <sup>5</sup>
Tangible Common Equity / Risk Weighted Assets (%)	17.4	16.0	15.5	15.1	15.3	15.8 <sup>6</sup>
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	20.5	22.9	27.4	29.1	27.5	25.5 <sup>5</sup>
Net Interest Margin (%)	3.6	3.2	2.3	2.4	2.6	2.85
PPI / Average RWA (%)	6.2	4.8	3.3	3.4	4.2	4.4 <sup>6</sup>
Net Income / Tangible Assets (%)	2.7	1.7	1.2	0.9	1.4	1.6 <sup>5</sup>
Cost / Income Ratio (%)	25.8	28.9	34.9	34.8	33.1	31.5 <sup>5</sup>
Market Funds / Tangible Banking Assets (%)	16.1	16.8	19.3	19.0	16.3	17.5 <sup>5</sup>
Liquid Banking Assets / Tangible Banking Assets (%)	37.3	36.2	31.8	29.5	29.6	32.9 <sup>5</sup>
Gross Loans / Due to Customers (%)	86.7	90.7	100.7	103.1	98.8	96.0 <sup>5</sup>

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

Emirates NBD PJSC (ENBD) is a Dubai-based bank established in October 2007. ENBD acquired Turkiye-based <u>Denizbank A.S. (B3 stable, caa1)</u> in 2019. ENBD is the second largest bank in the UAE, with total assets of \$227.5 billion as of September 2023.

ENBD had a 22% UAE market share in terms of assets, 23% in terms of loans and 23% in terms of deposits as at June 2023. The Government of Dubai was ENBD's largest shareholder, with a 55.74% stake through Investment Corporation of Dubai (40.9%) and Dubai Holding (14.84%).

The bank operates within four main business segments: Retail banking and Wealth Management (36.8% of operating income during first nine months of 2023), Corporate and Institutional banking (18.0%), DenizBank (27.6%), Global Markets and Treasury (9.1%) and Other (8.5%).

ENBD has 63% of its assets located in the UAE, 31% internationally (excluding Gulf Cooperation Council) and 6% in Gulf Cooperation Council (excluding UAE) as of December 2022. Denizbank, which is part of the international segment, accounts for 15% of ENBD's assets as of June 2023 (17% as of December 2022). As of September 2023, ENBD has 853 branches and operates in 13 countries including the UAE, Turkiye, Egypt, the Kingdom of Saudi Arabia, Austria, India, Singapore, the United Kingdom, Germany, Russia, Bahrain, China and Indonesia.

For assessing ENBD's operating environment, we use a Moderate+ Macro Profile, which is the weighted average of the Macro Profile or proxy Macro Profile of the countries in which the group operates. Specifically, we use the weighted average of UAE (<u>Strong-</u>), Turkiye (<u>Very Weak+</u>), Worldwide (Strong-), European Union (Strong) and Middle East (Moderate+) (see scorecard on page 9).

#### **Detailed credit considerations**

## Although improved modestly, asset quality remains relatively weak

As of September 2023, ENBD's problem loans-to-gross loans ratio still remains high at around 5.5% but has been slowly decreasing for the past two years (6% as of December 2022 and 6.3% as of December 2021). The stage 2 balance under IFRS9 - remains manageable at 5.2% of gross loans. We expect the bank's NPL ratio to remain broadly stable at the current levels given ENBD exposure to large corporates and strong risk management.

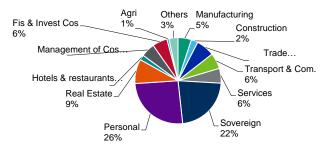
The bank's asset quality pressure is also mitigated to some extent by a high level of loan loss reserves. The group's coverage ratio (loan-loss reserves divided by problem loans) was at 145% as of September 2023, stable compared to December 2022 (vs 128% in December 2021) and remains materially higher than the 101% local average (as of June 2023).

The cost of risk, computed as loan-loss provisions divided by gross loans, remains exceptionally low at 27 bps for the first nine months ending September 2023 (compared to 21 bps in June 2023 and 108 bps during the full year 2022) reflecting the high level of recoveries during the quarter as well as the strong operating environment.

The bank's sizeable Turkish operations, through its wholly-owned subsidiary Denizbank, also pose a risk to asset quality given the fragile and volatile Turkish economy. The large proportion of its loans classified under the stage 2 bucket (10% of gross loans as of December 2022) will add to the asset quality challenges. Nonetheless, this is partly mitigated by high problem loans coverage.

ENBD's sector concentrations to the construction and real estate sectors also pose some risk to asset quality, but remain lower than most local peers. The bank's exposure to those sectors represented 63% of its tangible common equity and 12% of its loans as of September 2023 (compare to 77% and 13% respectively as of December 2022 - see Exhibit 3).

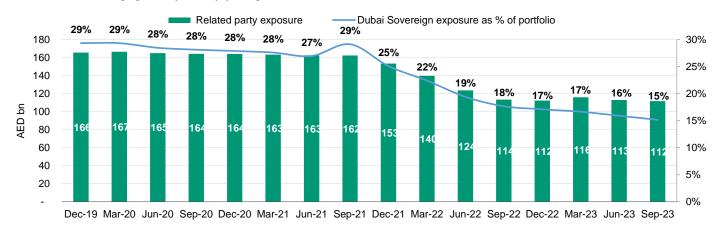
Exhibit 3
ENBD - Total gross loans by sector
As of September 2023



Source: ENBD Financial statements September 2023

Despite a significant decrease, the bank's risk profile remains also constrained by its high concentration related-party lending (see Exhibit 4). This exposure had increased from AED53 bn in 2010 to AED164 bn as of year-end 2020. However, The bank's related-party loans to Dubai decreased significantly to AED112 bn as of September 2023 (113% of Tier 1) from AED 162 bn (199% of Tier 1) as of September 2021. We expect ENBD's exposure to the Dubai government to further decline but to remain above 100% of the bank's Tier 1 capital over the next 12 months.

Exhibit 4
ENBD - Dubai Sovereign gross exposure q/q change



Source: ENBD financials

#### Solid capitalisation provides buffer to asset risk

We expect ENBD's capitalisation to remain solid around current levels. This will reflect internal profit generation balancing our expectation of a solid loan growth (high-single digit) during 2023.

As of September 2023, the bank's reported TCE to risk-weighted assets increased to 17.4% (compared to 16.0% in 2022 and 15.5% in 2021), reflecting the balance increasing profitability (doubling compared to September last year) that outweighted dividend payments and RWA growth (7% year-to-date). ENBD's TCE ratio is above the 15.1% UAE average (as of June 2023). The bank reported a Basel III Tier 1 ratio of 18.6% and a capital adequacy ratio of 19.7%.

As of December 2022, UAE banks had to hold a minimum 10.5% capital ratio, including a 7% minimum CET1 capital ratio, 150 bps maximum in Additional Tier 1 capital and a 250 bps capital conservation buffer (CCB) in CET1 capital.

As per the local regulatory regime, banks do not fully risk weight the credit extended to direct emirate or federal government entities. The Group's exposure to the Dubai government is compliant with the Central Bank of the UAE's large exposure limits. For the purpose of our analysis, we adjust ENBD's exposure to the Dubai government and despite the adjustment the bank's TCE ratio remains solid.

# Strong ties with the Dubai government and large Dubai corporates, combined with a large and growing retail banking franchise support profitability

We expect ENBD's profitability to improve in 2023 on the back of strong operating conditions in the UAE, higher interest rates and high level of recoveries in the UAE. ENBD's solid profitability is also driven by it strong and growing domestic franchise, which supports the bank's retail business for both loans (30% of total loans are to individual customers as of YE 2022) and deposits (60% of total deposits from retail segment as of YE 2022). ENBD's profitability also benefits from the bank's strong ties with the Dubai government and large corporates and large scale operations.

As a result of the strong franchise particularly on retail deposits at a time of rising interest rates, ENBD net interest margin (NIM) stood at 3.6% for the first nine months of 2023 (compared to 3.2% in 2022 and 2.8% for 9M 2022), above the 2.6% UAE system average (as of June 2023).

Improving Denizbank NIMs on the back of better loan pricing also supported the group overall NIMs. The bank's strong domestic franchise also drives non interest income, up 46% year-on-year, supported by the growth in FX & derivative transactions as well as increasing card transactions.

The bank's year-to-date performance was also supported by lower provisions, as loan-loss provisioning consumed only 4% of the bank's pre-provision income during the first nine months of 2023 compared with 19% for the same period in 2022. ENBD's operations remained efficient (25.8% cost to income ratio for the first nine months in 2023), supported by high income generation combined with improved cost management by Denizbank.

As a result, ENBD's net income to tangible banking assets ratio increased to a strong 2.7% for the first nine months of 2023 (1.6% as of September 2022), well above the 1.4% levels for 2019 and the 2.0% UAE system average (as of June 2023).

## Established franchise and strong capital market access drive stable funding

We expect ENBD to maintain its strong access to granular and low-cost current and savings accounts. Such deposits were 60% as of September 2023, stable compared to December 2022 (vs 61% as of December 2021). ENBD's granular deposit base reflects its solid retail franchise, with the bank being the second-largest (23% deposit market share as of June 2023) in the UAE.

We expect ENBD to maintain strong access to international capital and money markets through its treasury function, which is one of the most active in the GCC. The bank's market issuance will continue to support its term structure with broadly matched assets and liabilities. As of September 2023, the bank had an outstanding \$18 billion of debt and sukuk term funding, with around two third (70%) due from 2025 onwards. As of September 2023, the bank's market funds were manageable at 16.1% of tangible banking assets compared to 16.8% as of December 2022 and 19.3% as of year-end 2021.

We expect the bank to maintain a diversified funding base in terms of counterparty and currency. The bank's granular retail deposit base, and its market funding raised in various currencies, forms and maturities, contribute to its funding diversification.

We expect ENBD to maintain high liquidity levels. As of September 2023, the bank's liquid banking assets were strong at 37.3% of tangible banking assets (36.2% as of year-end 2022). The bank's net loans-to-deposits ratio was sound at 80% as of September 2023 (83% as of year-end 2022). The liquidity coverage ratio was 190%, well above the 100% regulatory minimum since 2019.

#### **ESG** considerations

Emirates NBD Bank PJSC's ESG credit impact score is CIS-2

#### Exhibit 5

#### ESG credit impact score



Source: Moody's Investors Service

ENBD's **CIS-2** reflects a limited credit impact of environmental, social and governance factors on the rating to date. Environmental risks are high and driven by the UAE's high exposure to carbon transition risk, because of its economic and fiscal dependence. The bank's social risks are moderate but well managed, and its governance structure is appropriate for its size.

Exhibit 6
ESG issuer profile scores



Source: Moody's Investors Service

#### **Environmental**

ENBD faces high exposure to environmental risks, mainly because of carbon transition risk. The UAE's economic dependence on the hydrocarbon sector (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

ENBD faces moderate social risks related to regulatory and litigation risks, requiring high compliance standards, as well as in the areas of data security and customer privacy. ENBD and UAE banks are generally focused on intermediation with simpler product ranges and counterparties, and the regulator's focus on mis-selling and social risks is less pronounced compared with banks in more developed markets.

#### Governance

ENBD has established governance practices as a listed firm and a track record of broadly meeting its annual guidance on financial targets. The bank's financial strategy is transparent and hosts regular investor/analyst update calls with timely reporting on financial statements (quarterly and annually). Finally, although the Dubai government maintains a 40.9% ownership stake in ENBD through

the Investment Corporation of Dubai and 14.84% through Dubai Holding, which is also reflected in the composition of its board of directors, this does not result in incremental governance risks because of the country's developed institutional framework.

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 <a href="here">here</a> to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

## Support and structural considerations

#### **Government support**

ENBD's A2 deposit rating incorporates four notches of uplift from the bank's baa3 BCA. This view reflects our assessment of a very high probability of government support in case of need, given the Dubai government's controlling ownership stake in ENBD (through the ICD and Dubai Holding), the bank's importance to the local financial system (a 23% market share of UAE banking deposits as of June 2023), the bank's designation as a domestic systemically important bank (D-SIB) by the UAE Central Bank and the UAE's strong track record of supporting banks in times of stress.

### Source of facts and figures cited in this report

Unless noted otherwise, we have sourced data relating 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 <u>Financial Statement Adjustments in the Analysis of Financial Institutions</u>, published on 9 August 2018.

## 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.

**FINANCIAL INSTITUTIONS** MOODY'S INVESTORS SERVICE

# Rating methodology and scorecard factors

Exhibit 7

**Emirates NBD Bank PJSC** 

Macro Factors Moderate 100% Weighted Macro Profile

Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	6.0%	ba3	$\leftrightarrow$	b2	Single name concentration	
Capital						
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	17.4%	a2	$\leftrightarrow$	baa2	Risk-weighted capitalisation	
Profitability						
Net Income / Tangible Assets	1.6%	a3	1	a3	Expected trend	
Combined Solvency Score		baa2		ba1		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	16.8%	baa2	$\leftrightarrow$	a3	Term structure	Deposit quality
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	36.2%	a3	$\downarrow$	baa2	Stock of liquid assets	
Combined Liquidity Score		baa1		baa1		
Financial Profile				baa3		
Qualitative Adjustments				Adjustment		
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint				Aa2		
BCA Scorecard-indicated Outcome - Range				baa2 - ba1		
Assigned BCA				baa3		
Affiliate Support notching				0		
Adjusted BCA				baa3		

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	baa2	4	A1	A1
Counterparty Risk Assessment	1	0	baa2 (cr)	4	A1(cr)	
Deposits	0	0	baa3	4	A2	A2
Senior unsecured bank debt	0	0	baa3	4	A2	A2
Dated subordinated bank debt	-1	0	ba1	3		(P)Baa1
Non-cumulative bank preference shares	-1	-2	ba3	0		Ba3 (hyb)

<sup>[1]</sup> 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 8

Category	Moody's Rating			
EMIRATES NBD BANK PJSC				
Outlook	Stable			
Counterparty Risk Rating	A1/P-1			
Bank Deposits	A2/P-1			
Baseline Credit Assessment	baa3			
Adjusted Baseline Credit Assessment	baa3			
Counterparty Risk Assessment	A1(cr)/P-1(cr)			
Senior Unsecured	A2			
Subordinate MTN	(P)Baa1			
Pref. Stock Non-cumulative	Ba3 (hyb)			
Commercial Paper	P-1			
Other Short Term	(P)P-1			
DENIZBANK A.S.				
Outlook	Stable			
Counterparty Risk Rating -Fgn Curr	B3/NP			
Counterparty Risk Rating -Dom Curr	B1/NP			
Bank Deposits -Fgn Curr	B3/NP			
Bank Deposits -Dom Curr	B1/NP			
Baseline Credit Assessment	caa1			
Adjusted Baseline Credit Assessment	b1			
Counterparty Risk Assessment	B1(cr)/NP(cr)			
EIB SUKUK COMPANY LTD.				
Outlook	Stable			
Bkd Sr Unsec MTN	(P)A2			
Course, Mondy's Investors Convice				

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 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 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 <a href="https://www.moodys.com">www.moodys.com</a> 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

1388388

## **CLIENT SERVICES**

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

