

CREDIT OPINION

3 July 2025

Update

Send Your Feedback

RATINGS

Credit du Maroc

Domicile	Casablanca, Morocco
Long Term CRR	Ba1
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Ba2
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

Badis Shubailat +971.4.237.9505
AVP-Analyst
badis.shubailat@moodys.com

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

Constantinos Kypreos +357.2569.3009
Senior Vice President
constantinos.kypreos@moodys.com

Henry MacNevin +44.20.7772.1635
Associate Managing Director
henry.macnevin@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
Asia Pacific 852-3551-3077

Credit du Maroc

Update following rating action

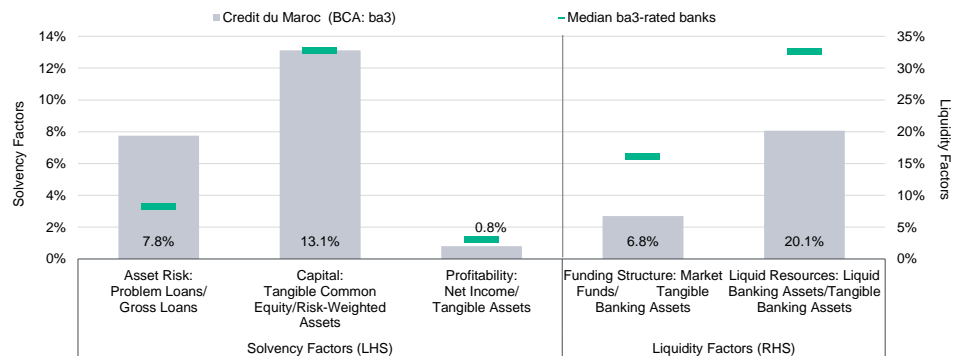
Summary

Credit du Maroc's (CdM) Ba2 long-term deposit ratings is one notch above its ba3 Baseline Credit Assessment (BCA) capturing one notch of rating uplift from the [Government of Morocco](#) (Ba1 stable) based on our assessment of a high probability of government support, in case of need.

CdM's ba3 BCA reflects its sound capitalisation, recovered profitability as well as sound liquidity. These strengths are moderated by the bank's high credit concentrations weighing on CdM's asset quality and a comparatively tight funding profile.

CdM's long-term deposit ratings have a stable outlook. The bank also carries national scale local and foreign currency deposit ratings of Aa3.ma/MA-1.

Exhibit 1
Rating Scorecard - Key financial ratios



The problem loan and profitability ratios are the weaker of the average three-year ratios and the latest reported ratios. The capital ratio is the latest reported figure. The funding structure and liquid asset ratios are the latest figures
Source: Moody's Ratings

Credit strengths

- » Sound capitalisation, supported by improved capital generation
- » Sound profitability
- » Sound liquidity

Credit challenges

- » Relatively weak asset quality
- » High credit concentrations
- » Comparatively tight funding profile

Outlook

The stable outlook on Cdm's long-term deposit ratings reflects our expectation that the bank's moderate profitability and sound capitalisation as well as a stable deposit base will continue to balance risks from high credit concentrations over the next 12 to 18 months.

Factors that could lead to an upgrade

Upward pressure on the ratings could develop from continued strengthening of the bank's core capital buffers, an established track record of stable profitability as well as a significant reduction in problem loans and borrower concentrations.

Factors that could lead to a downgrade

Downward pressure on the ratings could emerge from a significant deterioration in capitalisation, on the back of sizeable provisioning; a significant weakening in asset quality from unseasoned risks related to a rapidly growing loan book; or lower willingness from the government to extend support to Cdm in case of need. We may also downgrade the ratings in the event of a less conservative risk management and strategy.

Key indicators

Exhibit 2

Credit du Maroc (Consolidated Financials) [1]

	12-24 ²	12-23 ²	12-22 ²	12-21 ²	12-20 ²	CAGR/Avg. ³
Total Assets (MAD Million)	74,050.9	67,265.3	62,862.5	59,346.0	57,913.4	6.3 ⁴
Total Assets (USD Million)	7,308.5	6,815.9	6,011.2	6,417.8	6,504.1	3.0 ⁴
Tangible Common Equity (MAD Million)	6,925.1	6,201.0	5,697.4	5,716.9	5,274.0	7.0 ⁴
Tangible Common Equity (USD Million)	683.5	628.3	544.8	618.2	592.3	3.6 ⁴
Problem Loans / Gross Loans (%)	7.2	8.0	8.1	8.5	9.8	8.3 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	13.1	12.6	11.8	12.4	11.5	12.3 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	39.8	43.0	44.5	43.2	48.3	43.8 ⁵
Net Interest Margin (%)	3.4	3.4	3.2	3.3	3.1	3.3 ⁵
PPI / Average RWA (%)	3.3	2.7	2.2	2.4	2.3	2.6 ⁶
Net Income / Tangible Assets (%)	1.0	0.8	0.7	1.1	0.3	0.8 ⁵
Cost / Income Ratio (%)	50.4	56.3	60.1	56.2	57.3	56.1 ⁵
Market Funds / Tangible Banking Assets (%)	6.8	6.9	7.2	6.3	6.2	6.7 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	20.1	19.2	20.3	22.0	23.0	20.9 ⁵
Gross Loans / Due to Customers (%)	103.0	103.9	104.5	102.0	102.6	103.2 ⁵

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

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

Profile

Credit du Maroc (CdM) is a Casablanca-based bank established in 1929 as the Moroccan branch of Credit Lyonnais. Credit Lyonnais was renamed Credit Lyonnais Maroc in 1963, then Credit du Maroc in 1966. CdM had total assets of \$7.3 billion as of December 2024 and market shares of around 5.0% in terms of loans and around 4.4% in terms of deposits in Morocco.

As of December 2024, Holmarcom group, a Moroccan family-owned conglomerate operating real estate, finance, distribution and agro-industrial activities is the majority shareholder of CdM with a 78.7% stake of the bank's capital. Other shareholders include Wafa Assurance (10.7%).

CdM operates within two main business segments: Banque Maroc et Banque Offshore (98% of the operating income in 2024) and Societe de financement specialises (2%).

For assessing CdM's operating environment, we use Morocco's Moderate- Macro Profile, given that the bank operates exclusively in Morocco.

Detailed credit considerations

Relatively high stock of problem loans reflects credit concentrations, legacy exposures and conservative classification

We anticipate that asset quality will remain stable over the outlook horizon as supportive domestic economic conditions, lower inflation as well as reduced interest rates, will ease the strain on domestic borrowers' ability to make repayments. CdM continues to improve its asset-quality metrics through a more conservative risk appetite, enhanced risk management practices (including stricter risk appetite and a proactive recovery approach), and alignment of its risk management framework with best practices in the market.

We expect real GDP growth in Morocco to average 3.5% over the next three years driven by lower inflation and government-led investments in social security and infrastructure. The African Cup of Nations 2025 and 2030 World Cup, as well as longer-term energy transition, water stress management and tourism projects will also provide lending opportunities.

Similar to those of other Moroccan banks, CdM's high credit concentrations pose risks to its asset quality. Nevertheless, the bank has made noticeable and consistent efforts to reduce this concentration in recent years. As of December 2023, the top 20 credits accounted for 25% of total credits (approximately 229% of the bank's Tier 1 capital), compared to 35% in December 2010.

As of December 2024, problem loans stood at 7.2% of gross loans, down from 8.0% a year earlier. This improvement is driven by effective recoveries, lower NPL formation during the year and a denominator effect resulting from a 9% year-on-year increase in total loans. CdM's problem loan ratio compares favorably with the 8.5% local average for Moroccan banks as of December 2024. The balance of loans and advances that are not impaired but exhibit a significant increase in credit risk — classified in the Stage 2 bucket under IFRS9 — stood at 8.6% of gross loans as of December 2024 (10.1% as of December 2023) and was slightly above the average for Moroccan banks. Additionally, CdM's coverage ratio computed as loan-loss reserves/problem loans stood at 87% as of December 2024 (97% local average).

Recovered profitability

CdM's net income/tangible banking assets stood at 1.0% in 2024, up from 0.8% as of December 2023. CdM's sound underlying profitability reflects its established domestic franchise in Morocco. This was only partly supported by its association with Credit Agricole (CdM's previous shareholder) given its strong brand name and large network in France that helps attract non-resident Moroccan expats based in France. Following the closing of the sale of the parent's majority stake in the bank late 2022, CdM no longer leverages Credit Agricole's network but still enjoys established relationships in Morocco.

CdM's net interest margin remained stable at 3.4% in 2024, while non-interest income increased to 29% of net revenue during full-year 2024 (27% in full-year 2023). Although still higher than the local average, CdM's cost-to-income ratio (including income and expenses for other activities) improved to 50% as of December 2024 from 56% as of December 2023. The bank's loan loss provisioning consumed 18% of the bank's pre-provision income during the full year 2024, down from 29% in 2023. This decrease was primarily due to effective loan recoveries throughout the year.

CdM's profitability is expected to soften in 2025 as loans reprice, following recent policy rate cuts. This will however be mitigated by normalising provisioning as asset quality pressure from the lagged effect of inflation up to 2023 has eased during 2024.

Sound capitalisation supported by improved capital generation

We expect CdM's capitalisation to remain sound but inch lower on higher than average loan growth and modest earning retention. The bank's dividend payout ratio was 61.2% in 2024 and 74.7% in 2023.

We adjust the bank's capitalisation ratios for (1) minority interests, a capital component that is unlikely to provide absorption at the holding company level; and (2) the risk weighting of the bank's holding of Moroccan government securities, in line with the Basel II framework.

CdM's tangible common equity (TCE)/risk-weighted assets was at 13.1% as of December 2024 (12.6% as of December 2023), which is well above the 7.9% local average as of December 2024. This TCE ratio incorporates the aforementioned adjustment for government securities holdings.

CdM's reported regulatory capital figures, with a Basel II Tier 1 ratio of 12.7% and a total capital adequacy ratio of 14.2% as of December 2024 (12.5% and 14.6% as of December 2023, respectively), were solid and above the local regulatory minima. As of 1 January 2019, Moroccan banks had to comply with a minimum 9.0% Tier I capital ratio.

Funding underpinned by sound liquidity and a growing deposit base

We expect CdM to remain predominantly deposit funded with customer deposits accounting for 86% of non-equity liabilities as of December 2024, broadly stable compared to 2023. Additionally, the bank's deposit base primarily comprises low-cost current and savings accounts, which represented 88% of total deposits as of December 2024 (89% as of December 2023).

CdM's deposits grew 10% in full-year 2024 and 7% in full-year 2023, underpinning the bank's strategy of expanding its retail deposit base to ease its relatively tight funding position. The bank's net loans to deposit ratio stood at a relatively tight 96% as of December 2024, slightly down from 97% as of December 2023 as loans grew faster than deposits.

In addition, the bank's funding base is relatively granular, with the top 20 depositors representing 10.2% of total deposits as of December 2023. The bank's market funding was modest at 6.8% of tangible banking assets as of December 2024, stable compared to the previous year, which is credit positive.

CdM's liquidity buffers will remain relatively sound, with liquid assets/tangible assets of 20% as of December 2024 (19% as of December 2023). However, this level compares unfavorably with the 36% local average as of December 2024.

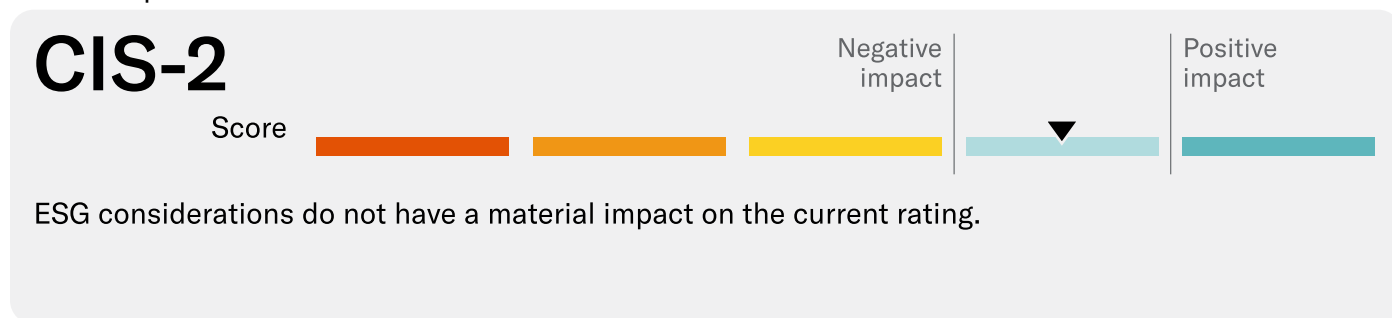
CdM's Basel III liquidity coverage ratio was strong at 149.1% as of December 2023, which is higher than the 100% minimum regulatory requirement.

ESG considerations

Credit du Maroc's ESG credit impact score is CIS-2

Exhibit 3

ESG credit impact score



Source: Moody's Ratings

Credit du Maroc's **CIS-2** indicates the limited impact of ESG considerations on the ratings to date

Exhibit 4
ESG issuer profile scores



Source: Moody's Ratings

Environmental

CdM faces moderate environmental risks. Physical climate risks reflect Morocco's strong dependence on rain-fed agriculture, and water scarcity that is leading to dwindling groundwater reserves. In addition, the importance of the agricultural sector in the national output and in employment (primary sector accounts for 10-15% of GDP and about 35% of total employment) contributes to a volatile growth pattern and exposes Moroccan banks' credit profiles to environmental risk. Mitigants to environmental risks include CdM's loan book diversification. In line with global peers, the bank is facing mounting business risks and stakeholder pressure to meet broader carbon transition goals. In response, CdM is engaging in developing its climate risk and portfolio management capabilities.

Social

CdM faces moderate social risks, related to regulatory and litigation risks, requiring high compliance standards. Moroccan 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. Risks related to societal and demographic trends reflect the relatively modest population growth and the already high banking penetration, which together limit business growth prospects in Morocco. High cyber and personal data risks are mitigated by a solid and improving IT framework.

Governance

Credit du Maroc faces low governance risks. The bank has sound corporate governance practices and conservative risk management. However, Credit du Maroc's evolving ownership, board oversight and management structure can introduce change in terms of financial strategy, risk appetite and governance profile.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.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

CdM's local and foreign currency deposit ratings at Ba2 incorporate a one notch rating uplift from government support from the bank's ba3 BCA based on our continued assessment of a high probability of government support in case of need. These support assumptions reflect our assessment of the bank's importance to the local financial system with around 4.4% deposit market share.

National scale rating (NSR)

NSRs are not intended to rank credits across multiple countries, instead they provide a measure of relative creditworthiness within a single country (Morocco in the case of CdM). Our NSRs are given a two-letter suffix to distinguish them from our global scale ratings. For example, NSRs in Morocco have the country abbreviation "ma".

CdM's NSRs of Aa3.ma/MA-1 for local and foreign currency deposits are derived from the bank's global scale deposit ratings and demonstrate that CdM is one of the strongest credits in the country, primarily reflecting the high probability of parental support and its strong funding and liquidity metrics.

Sources of facts and figures cited in this report

The global medians quoted in the report are calculated using the most recent full-year financial data for rated banks. Local averages used in this report are as of December 2024 for Moroccan banks that we rate. Bank-specific figures originate from the 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 titled [Financial Statement Adjustments in the Analysis of Financial Institutions](#) (published on 8 April 2024).

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 5

Rating Factors

Macro Factors							
Weighted Macro Profile	Moderate	100%					
-							
Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2	
Solvency							
Asset Risk							
Problem Loans / Gross Loans	7.8%	b1	↔	b2	Collateral and provisioning coverage	Single name concentration	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel II)	13.1%	ba1	↔	ba3	Capital retention	Expected trend	
Profitability							
Net Income / Tangible Assets	0.8%	ba2	↔	ba2	Loan loss charge coverage	Expected trend	
Combined Solvency Score		ba2		b1			
Liquidity							
Funding Structure							
Market Funds / Tangible Banking Assets	6.8%	baa2	↔	baa3	Deposit quality		
Liquid Resources							
Liquid Banking Assets / Tangible Banking Assets	20.1%	ba2	↔	ba2	Stock of liquid assets		
Combined Liquidity Score		baa3		ba1			
Financial Profile		ba1		ba3			
Qualitative Adjustments				Adjustment			
Business Diversification				0			
Opacity and Complexity				0			
Corporate Behavior				0			
Total Qualitative Adjustments				0			
Sovereign or Affiliate constraint				Ba1			
BCA Scorecard-indicated Outcome - Range				ba2 - b1			
Assigned BCA				ba3			
Affiliate Support notching				0			
Adjusted BCA				ba3			
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	ba2	1	Ba1	Ba1	
Counterparty Risk Assessment	1	0	ba2 (cr)	1	Ba1(cr)		
Deposits	0	0	ba3	1	Ba2	Ba2	

[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 6

<u>Category</u>	<u>Moody's Rating</u>
CREDIT DU MAROC	
Outlook	Stable
Counterparty Risk Rating	Ba1/NP
Bank Deposits	Ba2/NP
Baseline Credit Assessment	ba3
Adjusted Baseline Credit Assessment	ba3
Counterparty Risk Assessment	Ba1(cr)/NP(cr)

Source: Moody's Ratings

© 2025 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 Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and all MCO entities that issue ratings under the "Moody's Ratings" brand name ("Moody's Ratings"), also maintain policies and procedures to address the independence of Moody's Ratings' 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 ir.moody.com under the heading "Investor Relations — Corporate Governance — Charter and Governance 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 and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs and NZAs 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.

REPORT NUMBER 1450426

CLIENT SERVICES

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