

CREDIT OPINION

17 July 2026

Update



Send Your Feedback

RATINGS

Banco BOCOM BBM S.A.

Domicile	Rio de Janeiro, Rio de Janeiro, Brazil
Long Term CRR	Baa2
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	WR
Type	Senior Unsecured - Dom Curr
Outlook	Rating(s) WithDrawn
Long Term Deposit	Baa3
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

Daniel Girola +55.11.3956.8729
VP-Senior Analyst
daniel.girola@moodys.com

Lucas Ivanov +55.11.3043.7300
Ratings Associate
lucas.ivanov@moodys.com

Ceres Lisboa +55.11.3043.7317
Associate Managing Director
ceres.lisboa@moodys.com

» Contacts continued on last page

Banco BOCOM BBM S.A.

Update following rating affirmation

Summary

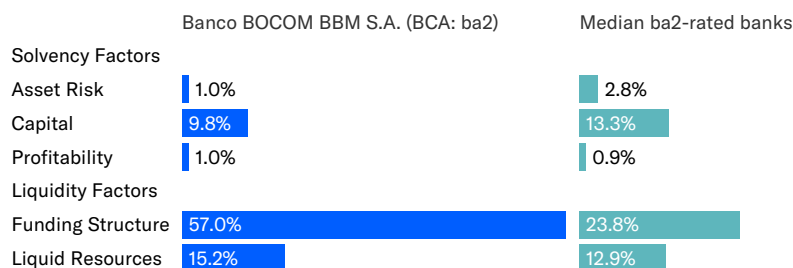
[Banco BOCOM BBM S.A.](#)'s (BOCOM BBM) Baseline Credit Assessment (BCA) of ba2 reflects its disciplined risk management framework, a key credit strength evidenced by a consistent track record of stable earnings and low problem loan levels across economic cycles, which mitigates the single-borrower and rural sector concentration risks inherent to its business model.

The ba2 BCA also incorporates BOCOM BBM's sizeable reliance on less stable funding sources, mitigated by prudent management of asset-liability maturity mismatches, an adequate liquidity position, and continued access to stable funding from its parent.

BOCOM BBM's Baa3 deposit ratings reflects our assessment of very high affiliate support from parent [Bank of Communications Co., Ltd](#) (BoCom, A2 stable, baa3¹), resulting in two notches of uplift from the ba2 BCA.

Exhibit 1

Rating Scorecard - Key Financial Ratios As of December 2025



Note: Ratios are from Moody's banking scorecard. Capital ratio is as of most recent period; Asset Risk and Profitability ratios are the worse of the most recent year-to-date period or the average of the last three years and the most recent year-to-date; Funding Structure and Liquid Resources ratios are as of the most recent year-end.

Source: Moody's Ratings

Credit strengths

- » Conservative risk management supports a track record of superior asset quality metrics and low credit costs.
- » Consistent profitability and improved earnings diversification
- » Adequate liquidity position combined with prudent management of tenor mismatches.

Credit challenges

- » Funding base largely sourced through wholesale investors and third-party investment platforms.
- » Asset risks associated with high borrower and sector concentration relative to tangible common equity.
- » Lower core capitalization compared to similarly rated peers.

Rating outlook

BOCOM BBM's deposit ratings have a stable outlook that incorporates our expectation that the bank will maintain stable capitalization and disciplined risk management practices over the next 12-18 months.

Factors that could lead to an upgrade

- » BOCOM BBM's BCA could face upward pressure if the bank effectively reduces credit and funding concentrations, and consistently strengthens its core capital position.
- » A multi-notch upgrade in the parent bank's BCA could prompt an upgrade in BOCOM BBM's deposit ratings.

Factors that could lead to a downgrade

- » BOCOM BBM's BCA, and ratings, could experience downward pressure if its asset quality deteriorates rapidly exerting pressures on earnings generation, and on its capital position.
- » A BCA downgrade of its parent bank could also lead to a downgrade of BOCOM BBM's deposits ratings.

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.

Key Indicators

Exhibit 2

Banco BOCOM BBM S.A. (Unconsolidated Financials) [1]

	12-25 ²	12-24 ²	12-23 ²	12-22 ²	12-21 ²	CAGR/Avg. ³
Total Assets (BRL Million)	32,645.8	34,782.1	27,765.9	22,567.5	15,649.2	20.2 ⁴
Total Assets (USD Million)	5,957.5	5,630.1	5,716.0	4,274.4	2,806.4	20.7 ⁴
Tangible Common Equity (BRL Million)	1,581.5	1,113.3	1,161.5	889.7	789.1	19.0 ⁴
Tangible Common Equity (USD Million)	288.6	180.2	239.1	168.5	141.5	19.5 ⁴
Problem Loans / Gross Loans (%)	1.0	0.1	0.2	0.2	0.2	0.3 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	9.8	7.4	6.1	5.4	7.2	7.2 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	9.0	1.4	2.1	2.7	1.3	3.3 ⁵
Net Interest Margin (%)	3.0	2.3	2.9	2.8	2.9	2.8 ⁵
PPI / Average RWA (%)	4.6	3.2	3.0	3.1	3.4	3.5 ⁶
Net Income / Tangible Assets (%)	1.2	0.8	1.0	1.0	0.9	1.0 ⁵
Cost / Income Ratio (%)	31.4	31.9	34.2	37.2	37.9	34.5 ⁵
Gross Loans / Due to Customers (%)	143.3	114.4	127.9	145.7	157.3	137.7 ⁵
Core Banking Liquidity (Non-HQLA) / Tangible Banking Assets (%)	15.2	16.1	--	--	--	--
Less-stable Funds (Non-LCR) / Tangible Banking Assets (%)	57.0	56.9	--	--	--	--

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully loaded or transitional phase-in; LOCAL GAAP. [3] May include rounding differences because of the scale of reported amounts. [4] Compound annual growth rate (%) based on the periods for the latest accounting regime. [5] Simple average of periods for the latest accounting regime. [6] Simple average of Basel III periods. Further to the publication of our revised methodology in November 2025, only ratios from annual 2024 onwards included in this report apply reported risk weights for all exposures, discontinuing our previously applied standard adjustment for certain government securities.

Sources: Moody's Ratings and company filings

Profile

Founded in 1858, BOCOM BBM started operations as Banco da Bahia, focused on financing agriculture producers, as well as middle-market companies. In 1998, the bank's commercial arm merged with the investment bank Banco da Bahia Investimentos, with focus on proprietary trading activities and asset management, and formed a multiple banking structure, changing its name to Banco BBM S.A.

In May 2015, Bank of Communications Co., Ltd. announced the acquisition of an 80% stake in the bank. In August 2024, the Chinese-based parent concluded the acquisition of the remaining 20% of the shares that were owned by the Mariani family.

Detailed credit considerations

Concentration risks tempered by robust credit fundamentals

We assign a baa3 asset risk score that reflects our Problem loans to Gross Loans ratio of 1.0%², which we consider to be Moderate, and is adjusted for high single-borrower and sector concentration, partly mitigated by the bank's conservative underwriting standards, collateral discipline and a track record of low problem loan ratios.

The acquisition by Bank of Communications, Ltd. expanded the bank's access to large corporates and Chinese companies, increasing single-borrower concentration. As of December 2025, the top 20 clients accounted for 28% of total credit exposure and 327% of tangible common equity, down from 469% a year earlier. The bank's significant exposure to agribusiness, at 45% of the loan portfolio, may also add volatility to asset quality. BOCOM BBM mitigates concentration risks by focusing on clients with robust credit fundamentals, while its rural loan portfolio is relatively diversified in terms of subproducts and geography. The bank's provisions also cover 96% of Stage 3 loans, providing a solid buffer against potential asset risks.

As of December 2025, total credit exposure, including issued guarantees and private securities, increased 5.8% year over year to BRL 19.4 billion, a significant slowdown compared with the 26% average annual growth in 2020-24, reflecting a more cautious origination stance amid a less attractive risk-return environment. Companies with annual revenue between BRL 400 million and BRL 3 billion, and above BRL 3 billion, accounted for 57% and 18% of total exposure, respectively. Credit to midsize enterprises represented 6% of total exposure and was originated with stricter collateral requirements, with loans on a clean basis accounting for only 17% of the total, while collateralization of the overall loan book was 36.9% as of December 2025.

Looking ahead, we expect high interest rates to continue weighing on leveraged sectors with thinner margins, including agribusiness borrowers that are also likely to face less favorable climate conditions over the next twelve months. However, BOCOM BBM's prudent underwriting standards and focus on clients with sound credit fundamentals will continue to mitigate these risks.

Stronger capital metrics reflect sustained earnings generation and slower balance sheet growth

We assign a b1 capital score that reflects our Tangible Common Equity to Risk Weighted Assets ratio of 9.8%, which we consider to be Weak. Our assessment also considers that sustained profitability, combined with moderate loan growth and contained payout ratios, will continue to support capitalization.

As of December 2025, amid slower credit growth, regulatory capital ratios improved, with total regulatory and common equity tier 1 ratios rising to 16.1% and 9.9%, respectively, from 14.7% and 8.9% a year earlier. Our assessment also incorporates the shareholders' commitment to the growth strategy of the Brazilian subsidiary, and potential capital injections, likely in the form of further perpetual bond purchases, should there be a need to maintain regulatory capital buffers. Over the last four years, BOCOM BBM has reduced dividend payout ratio to roughly 30%, supporting balance sheet expansion through earnings retention.

BOCOM BBM maintains resilient profitability amid compressed credit spreads

We assign a ba1 score for profitability that reflects our Net Income to Tangible Assets ratio of 1.0%, which we consider to be Moderate. Our assessment takes into consideration the bank's track record of consistently generating stable profits across different economic and business cycles.

Profitability improved in 2025 despite intense competition, a more selective risk appetite for higher-yielding loans, and subdued debt capital markets activity. BOCOM BBM's net income to tangible assets ratio rose to 1.2%, from 0.8% a year earlier, benefiting from lower funding costs and higher revenue from treasury product sales to clients, a trend we expect to persist through 2026.

The cost-to-income ratio stood at 31% in December 2025, flat from the previous year and lower than the 37% in December 2022, reflecting cost discipline and improved efficiency from scale gains. As BOCOM BBM expands its customer base, the bank is simultaneously diversifying its portfolio with a focus on complementary products such as credit funds management, local debt capital markets structuring and derivatives sales.

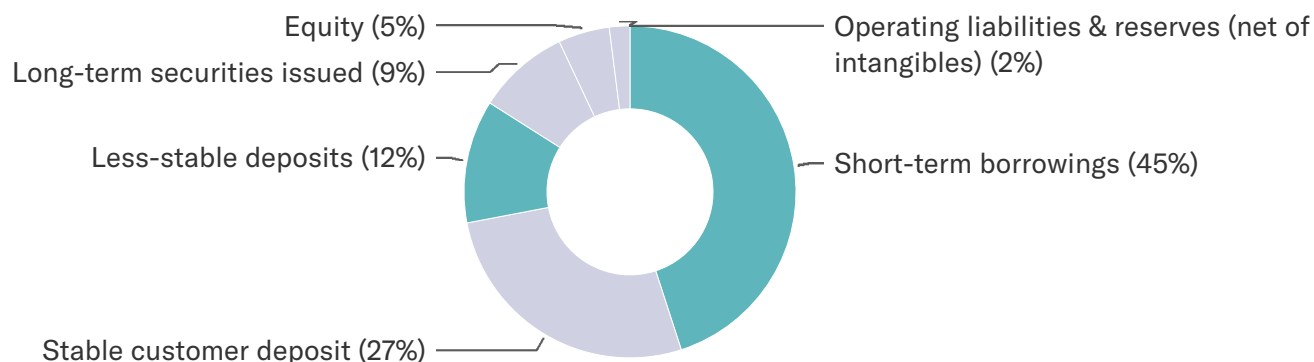
Continued access to a diversified funding base and stable parent-provided funding

We assign a b1 score for funding structure that reflects our Less Stable Funds to Tangible Banking Assets ratio of 57.0%, which we consider to be Weak. Our assessment also reflects the bank's continued access to diversified sources and stable funding from its parent.

BOCOM BBM's main funding source remains agribusiness credit bills (LCAs), supported by its sizeable agribusiness loan portfolio. These insured, deposit-like instruments, which account for around 30% of total funding, are largely held by individual investors and primarily distributed through third-party investment platforms. Funding provided by BoCom Group represented 20% of total funding as of December 2025, while other market funds consist of repurchase agreements (17%), correspondent bank borrowings (7%), local-currency debt instruments (financial bills and real estate credit bills) at 7%, derivative liabilities (3%) and subordinated debt at 3%.

The remaining 12% of total funding represent the bank's deposit base, which is sourced through a concentrated pool of corporate clients, with top 10 investors accounting for 63.4% of total deposits as of December 2025.

Exhibit 3

Less-stable funds are mainly composed of short term borrowings

Source: Moody's Ratings

Conservative asset-liability management underpins liquidity strength

We assign a baa2 score for liquid resources that reflects our Core Banking Liquidity (CBL) to Tangible Banking Assets ratio of 15.2%³, which we consider to be Moderate, and is adjusted for the bank's prudent liquidity and asset-liability management.

To mitigate funding risk, BOCOM BBM holds a large position of liquid assets, sufficient to comfortably cover the bank's 180-day horizon obligations including the funding provided by BoCom Group, which is less sensitive to market conditions. BOCOM BBM also adopts stringent rules against maturity mismatches as, excluding the funding provided by related parties, which is mostly of short-term and continuously renewed, the bank finances all of its credit operations with longer-term obligations.

BOCOM BBM's rating is supported by the Moderate Macro Profile of Brazil

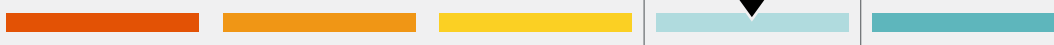
Brazil's (Ba1 stable) Macro Profile of "Moderate" is supported by the country's large and highly diversified economy with limited exposure to external financing risks. It also incorporates our improvements in the business environment for banks from recent reforms, including the independence of the central bank; the state-owned company law; labor reform; and a collateral framework that reduced uncertainties about judicial disputes and the potential for political intervention in the financial system. We forecast real GDP growth to level off at 2.0% in 2026 and 2027, from 2.1% in 2025. Our assessment acknowledges the historically low unemployment and steady, though high, household debt, which together will help contain risks in 2026 as banks moderate risk taking. Ample domestic liquidity should keep supporting banks' funding needs.

ESG considerations**Banco BOCOM BBM S.A.'s ESG credit impact score is CIS-2**

Exhibit 4

ESG credit impact score**CIS-2**

Score



ESG considerations do not have a material impact on the current rating.

Source: Moody's Ratings

BOCOM BBM's **CIS-2** indicates that ESG considerations are not material to the rating. The credit impact of environmental and social factors on the rating to date is moderate. The bank faces limited governance risks, stemming from conservative risk management and consistent corporate governance practices.

Exhibit 5

ESG issuer profile scores



Source: Moody's Ratings

Environmental

BOCOM BBM's **E-3** score reflects exposure specifically from carbon transition and physical climate risks. As a wholesale bank with meaningful lending to corporate clients in Brazil, BOCOM BBM has credit exposure to carbon-intensive and rural sectors. Like its peers, BOCOM BBM is facing mounting regulatory and stakeholder pressure to meet broader carbon transition goals. In response, the bank is engaging in developing its climate risk and portfolio management capabilities.

Social

BOCOM BBM faces moderate social risks related to customer relations. The bank's developed policies and procedures, mitigate risk associated with the distribution of financial products such as conduct, regulatory and reputational risks, as well as exposure to litigation; BOCOM BBM has activities primarily in Brazil, a country which has imposed only moderate penalties in relation to consumer protection. Continued investments in technology and the bank's long track record of handling sensitive customer data, as well as appropriate culture and governance that ensure adherence to regulatory standards, help to manage high cyber and personal data risks. Opportunities from financial inclusion are reflected in a better than industrywide exposure to demographic and societal trends.

Governance

G-2. BOCOM BBM faces limited governance risks. Its risk management framework and corporate governance are in line with industry practices. The bank is fully-owned by Bank of Communications Co., Ltd.; therefore, we have aligned the subsidiary's board structure, policies and procedures score with that of its parent, given the bank's strategic importance to the parent, the parent's oversight of its subsidiary board and the regulated nature of both entities. The bank's risk management function has shown a conservative stance, illustrated by consistently low nonperforming loan ratios.

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

Affiliate support

We believe there is a very high probability of affiliate support for BOCOM BBM from its parent bank, BoCom, given its 99.7% ownership stake and the strategic importance of the Brazilian subsidiary. BoCom appoints executives to certain key positions and is closely engaged in the subsidiary's strategic decision making process, including BOCOM BBM's support to the operations of Chinese companies in Brazil. Therefore, BOCOM BBM's Adjusted BCA of baa3 incorporates a two-notch uplift from its ba2 BCA.

Government support

BOCOM BBM's local-currency deposit rating of Baa3 reflects its baa3 Adjusted BCA and does not benefit from government support uplift, given the bank's modest market share of domestic deposits.

Counterparty Risk (CR) Assessment

BOCOM BBM's CR Assessment is positioned at Baa2(cr)/Prime-2(cr)

The CR Assessment is one notch above the bank's Adjusted BCA of baa3, and, therefore, above the deposit rating of the bank, reflecting our view that its probability of default is lower at the level of operating obligations than of deposits. This CR Assessment reflects an issuer's probability of defaulting on certain operating liabilities and other contractual commitments that are less likely to be subject to the application of a resolution tool to ensure the continuity of operations.

Counterparty Risk Ratings (CRRs)

BOCOM BBM's CRRs are positioned at Baa2/Prime-2

BOCOM BBM's global local- and foreign-currency CRRs are positioned at Baa2 and Prime-2, three notches above the bank's BCA.

Methodology and scorecard

About Moody's Bank Scorecard

Our scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our scorecard may 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 6

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	1.0%	a3	↔	baa3	Sector concentration	Single name concentration	
Capital							
Tangible Common Equity / Risk Weighted Assets (Basel III - transitional phase-in)	9.8%	b1	↔	b1			
Profitability							
Net Income / Tangible Assets	1.0%	ba1	↔	ba1	Earnings stability		
Combined Solvency Score		ba1		ba2			
Liquidity							
Funding Structure							
Less-stable Funds / Tangible Banking Assets	57.0%	b1	↔	b1	Market funding quality		
Liquid Resources							
Core Banking Liquidity / Tangible Banking Assets	15.2%	ba1	↑	baa2	Quality of liquid assets		
Combined Liquidity Score		ba3		ba2			
Financial Profile		ba2		ba2			
Qualitative Adjustments				Adjustment			
Business and Geographic Diversification				0			
Complexity and Opacity				0			
Strategy, Risk Appetite and Governance				0			
Total Qualitative Adjustments				0			
Sovereign or Affiliate constraint				Ba1			
BCA Scorecard-indicated Outcome - Range				ba1 - ba3			
Assigned BCA				ba2			
Affiliate Support notching				2			
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	0	Baa2	Baa2	
Counterparty Risk Assessment	1	0	baa2 (cr)	0	Baa2(cr)		
Deposits	0	0	baa3	0	Baa3	Baa3	

[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 7

Category	Moody's Rating
BANCO BOCOM BBM S.A.	
Outlook	Stable
Counterparty Risk Rating	Baa2/P-2
Bank Deposits	Baa3/P-3
Baseline Credit Assessment	ba2
Adjusted Baseline Credit Assessment	baa3
Counterparty Risk Assessment	Baa2(cr)/P-2(cr)
PARENT: BANK OF COMMUNICATIONS CO., LTD.	
Outlook	Stable
Counterparty Risk Rating	A2/P-1
Bank Deposits	A2/P-1
Baseline Credit Assessment	baa3
Adjusted Baseline Credit Assessment	baa3
Counterparty Risk Assessment	A2(cr)/P-1(cr)

Source: Moody's Ratings

Endnotes

- 1 The bank ratings shown in this report are the bank's deposit rating and Baseline Credit Assessment.
- 2 In early 2025, Brazilian banks adopted Resolution No. 4,966, materially altering asset-quality reporting. Banks now disclose Stage 3 loans, which encompasses both traditional 90-days past due exposures and credit impaired loans identified through qualitative indicators, such as repeated renegotiations or a sharp decline in credit quality. As a result, problem loan figures shown in Exhibit 2 for 2025 are not comparable with prior years.
- 3 Since BOCOM BBM isn't required to report high-quality liquid assets (HQLA), CBL includes cash & equivalents, securities held at fair value and sovereign securities measured at amortized cost, applying a 50% haircut to both types of securities. While our CBL metric excludes amounts due to financial institutions, we qualitatively adjust the liquidity metric to incorporate reverse repos that are very short-term, low-risk, centrally cleared instruments.

© 2026 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 LEGAL, COMPLIANCE, INVESTMENT, FINANCIAL OR OTHER PROFESSIONAL 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 or assessment 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 or assessment 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 or assessment 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., Moody's Local PA Clasificadora de Riesgo S.A., Moody's Local CR Clasificadora de Riesgo S.A., Moody's Local ES S.A. de CV Clasificadora de Riesgo, Moody's Local RD Sociedad Clasificadora de Riesgo S.R.L. and Moody's Local GT 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 61 003 399 657 AFSL 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.

EU: In the European Union, each of Moody's Deutschland GmbH and Moody's France SAS provide services as an external reviewer in accordance with the applicable requirements of the EU Green Bond Regulation. 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 1487792

Contacts

Alexandre Albuquerque	+55.11.3043.7356	Ceres Lisboa	+55.11.3043.7317
VP-Senior Analyst		Associate Managing	
alexandre.albuquerque@moodys.com		Director	
		ceres.lisboa@moodys.com	
Lucas Ivanov	+55.11.3043.7300		
Ratings Associate			
lucas.ivanov@moodys.com			