

CREDIT OPINION

25 July 2023

Update



RATINGS

Vibra Energia S.A.

Domicile	Brazil
Long Term Rating	Ba1
Туре	LT Corporate Family Ratings
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

Erick Rodrigues	+55.11.3043.7345
VP-Senior Analyst	
erick.rodrigues@moody:	s.com

Marcos Schmidt +55.11.3043.7310
Associate Managing Director
marcos.schmidt@moodys.com

CLIENT SERVICES

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

Vibra Energia S.A.

Update to credit analysis

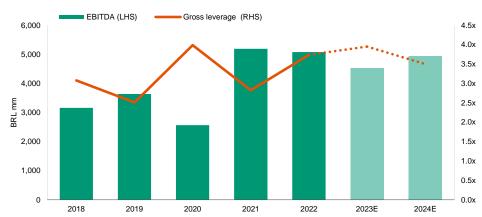
Summary

The Ba1 rating assigned to <u>Vibra Energia S.A.</u> reflects its market position as the largest fuel distributor in <u>Brazil</u> (Ba2 stable) in terms of volumes sold, gas station network and distribution logistics assets, along with its well-known brand names and adequate credit metrics. The ratings also incorporate an adequate liquidity position and improvements in governance standards and profitability gains following Vibra's privatization in July 2019.

Constraining the rating is the concentration of revenue in the fuel distribution business and correlated segments in an increasingly competitive fuel distribution market in Brazil. We expect Vibra to continue to diversify revenue sources, including the free energy market and gas distribution. However, these new ventures will take a few years to develop and require expansion investments and inorganic growth. We expect Vibra to maintain high dividend payments, but we do not expect these to restrain liquidity or impede positive-to-neutral free cash flow (FCF) generation.

Exhibit 1

Despite lower EBITDA in 2023 we expect Vibra lower debt level to keep leverage at 4.0x Moody's-adjusted EBITDA (BRL million) and leverage (Debt/EBITDA)



All figures and ratios are calculated using our estimates and standard adjustments. The forecasts or projections are our opinion and do not represent the views of the issuer.

Source: Moody's Investors Service

Credit strengths

- » Largest fuel distributor in the Brazilian market with a nationwide logistics footprint
- » Strong brand names and initiatives to strengthen efficiency
- » Improvement in governance and profitability following the transition from a state-owned company to a publicly traded corporation and given the absence of the constraints faced by state-owned companies
- » Good liquidity

Credit challenges

- » Concentration of revenue in the fuel distribution business and correlated segments
- » Considerably regulated market, which is becoming increasingly open and more competitive
- » High dividend distributions
- » High gross leverage

Rating outlook

The stable rating outlook reflects our view that Vibra will maintain its leadership position in the fuel distribution segment and will maintain prudent financial policies, including adequate liquidity and financial leverage. Moreover, while dividends are likely to remain robust, they will not strain liquidity or impede positive-to-neutral FCF.

Factors that could lead to an upgrade

A rating upgrade would be dependent on an upgrade of Brazil's bond rating. In addition, a positive rating action would require the company to maintain good liquidity and credit metrics, such as:

- » gross debt/EBITDA below 3.5x
- » interest coverage ratio, measured as EBIT/interest expense, above 4.0x
- » retained cash flow/net debt above 25%

Factors that could lead to a downgrade

Vibra's ratings could be downgraded in case of a deterioration in its operating performance or credit metrics, as well as negative actions on Brazil's bond rating. Also, a deterioration in liquidity could prompt a downgrade. Quantitatively, a rating downgrade would require:

- » gross debt/EBITDA remaining above 4.0x
- » interest coverage remaining below 2.5x

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.

Key indicators

Exhibit 2 **Key Indicators for Vibra Energia S.A.**

in BRL millions	2018	2019	2020	2021	2022	2023(f)	2024(f)
Revenue	97,770	94,985	81,501	130,121	181,446	163,400	152,200
EBIT / Interest Expense	3.1x	4.7x	3.5x	6.5x	3.7x	2.3x	2.8x
RCF / Net Debt	28.6%	-14.8%	10.5%	15.3%	22.4%	14.4%	13.2%
Debt / EBITDA	3.1x	2.5x	3.6x	2.8x	3.7x	4.1x	3.9x

^[1] All figures and ratios are calculated using our estimates and standard adjustments.

Profile

Vibra Energia S.A. (formerly Petrobras Distribuidora S.A.), headquartered in Rio de Janeiro, is the largest fuel distributor in Brazil, with a market share of around 24.8% in terms of fuel sales in 2022. It is a publicly held corporation, with shares listed on <u>B3 S.A. - Brasil, Bolsa, Balcao</u> (Ba1 stable). Until July 2019, Vibra was a state-owned company controlled by <u>Petroleo Brasileiro S.A. - PETROBRAS</u> (Petrobras, Ba1 stable).

Detailed credit considerations

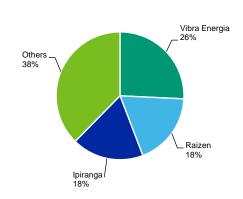
Largest fuel distributor in the Brazilian market with a nationwide logistics footprint

Vibra along with the second- and third-largest fuel distributors, <u>Raízen S.A.</u> (Baa3 stable) and Ipiranga Produtos de Petroleo S.A. (Ipiranga, a wholly owned subsidiary of <u>Ultrapar Participações S.A.</u>; Ba1 negative), respectively, sells around 60% of all fuels, including gasoline, ethanol, diesel and aviation fuel in Brazil annually. As of March 2023, Vibra had 8,383 gas stations under the BR brand name and around 1,239 convenience stores. In the 12 months that ended in March 2023, Vibra's revenue was BRL182 billion with an EBITDA margin of 2%, based on our standard adjustments.

Exhibit 3

Vibra holds a leadership position in Brazil along with Raízen and Ipiranga

Percentage share in the volume of fuels sold in service stations



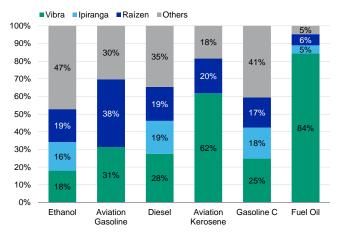
This includes ethanol, gasoline and diesel. Market share is based on data for the 12 months that ended in March 2023.

Sources: ANP (National Petroleum Agency), Sindicom, Abegas (Brazilian Association of Piped Gas Distributors) and Moody's Investors Service

Exhibit 4

Vibra is the sales leader in fuel oil, aviation fuel, diesel and gasoline

Percentage share in the volume of fuels sold



Market share is based on data for the 12 months that ended in March 2023. Sources: Sindicom and Moody's Investors Service

Vibra has the largest logistics footprint in Brazil, including 92 fuel storage bases, 12 lubricant deposits and 92 airport fuel stations, servicing all Brazilian regions. Its logistics assets will be increasingly important in terms of the import of fuels because the Brazilian market is going to become increasingly competitive with the entry of new competitors in refining and fuel distribution. We believe Vibra capital allocation over 2022-26 will focus on its core portfolio of fuel distribution, including convenience, and lubricants. Also in

^[2] Periods are financial year end unless indicated. LTM = Last 12 months.

^[3] The forecasts (f) are our opinion and do not represent the views of the issuer. Source: Moody's Investors Service

the trading of ethanol and electric energy. We estimate total capital spending to average BRL1.0 billion per year in the next three years, including acquisitions.

Investing to accelerate growth and diversify revenue sources

In 2021, the company changed its name to Vibra Energia S.A. from Petrobras Distribuidora S.A. as part of the renewed corporate identity. Also, the company announced three growth pillars, namely the focus on its clients, the provision of a neutral commercialization channel, and the investment in progressive energy sources (see Vibra S.A., Update to Credit Analysis, 24 June 2022). Under these drivers, Vibra has announced a retail partnership with Americanas S.A. to manage a network of convenience stores in and outside gas stations; a partnership with Copersucar, which represents a cooperative of 34 ethanol producing mills; a cooperation agreement with ZEG Biogas; and the acquisition of Targus (now Vibra Comercializadora) and a stake in Comerc Energia focused on the commercialization of eolic and solar energy.

On 23 January, Vibra notified to Americanas S.A. to terminate the partnership after the retailer announced accounting inconsistencies that masked the company's real margins and capital structure, with strong indications of fraud. Despite the undoing of the partnership, BR Mania stores followed their normal course of operations. Convenience stores are still an underpenetrated business in Brazil (around 20% of gas stations have a convenience store) compared with that in the US (around 94%) and in other Latin American countries, such as Argentina (around 50%).

Well-known brand names and initiatives to strengthen efficiency

Vibra's main reporting segments are Retail Network, Large Customers, Aviation and Special Products (see <u>Petrobras Distribuidora S.A., New Issuer</u>, 16 January 2020). The Retail Network segment accounts for 58% of revenue and comprises the BR fuel stations, BR Mania convenience stores and Lubrax service centers. The Large Customers segment accounts for 43% of revenue and services, with more than 10,000 customers in diverse sectors such as steel, mining, pulp and paper, cements, transport, energy, agribusiness and transporter-reseller-retailers (TRRs¹). The aviation and special products businesses are consolidated under the Large Customers segment. The Aviation business, which accounts for 11% of revenue, has 92 fuel stations in airports. The Special Products business — comprising mainly lubricants, coke, chemicals and energy — has better margins despite lower volumes.

Following its privatization, Vibra entered into a licensing deal to continue to use the Petrobras brands (BR, BR Mania, Lubrax, Premmia and others) for the next 10 years, which is renewable for another 10 years. The premature loss of the right to use Petrobras brands would be credit negative, given the importance of branding in the distribution business and the well-known brands associated with Petrobras for the retail public. Along with scale and logistics, brand strength is one of the three main drivers of the fuel distribution business in Brazil.

Exhibit 5

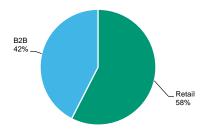
Retail and corporate consumers are major contributors to revenue \dots

Revenue breakdown by operational segment in the 12 months ended March 2023

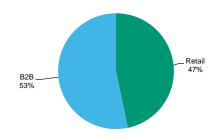
Exhibit 6

... and to EBITDA

EBITDA breakdown by operational segment in the 12 months ended March 2023



Sources: Company and Moody's Investors Service

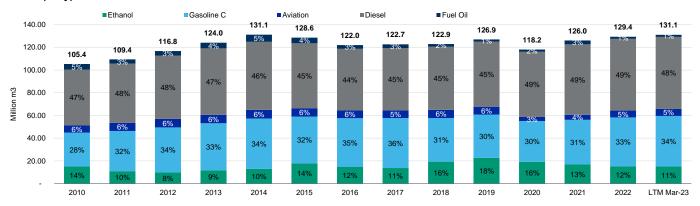


Sources: Company and Moody's Investors Service

Fuel distribution in Brazil presents certain stability but also good growth prospects

Fuel distribution and the correlated retail business offer good growth prospects in Brazil. Vibra will maintain its leadership position in the coming years as the gradual improvement in the macroeconomic environment helps boost vehicle sales, income levels, agricultural and industrial activity.

Exhibit 7 **Fuel sales in Brazil Volume per type of fuel in million m³**



Not including liquefied petroleum gas.
Sources: ANP (National Petroleum Agency) and Moody's Investors Service

Gasoline and ethanol account for around 45% of Vibra's sales volume, and their consumption is tied to the size of the country's auto fleet. The lack of a well-developed public transportation system in Brazil, the still-low penetration of light vehicles in the country, the increase in the population's standard of living and low scrapping rates offer further growth opportunities for companies in this sector. In 2022, fuel sales were 3.7% higher than in the previous year, and we expect them to increase by around 2.0% in 2023. Diesel consumption (48% of Vibra's sales volume in 2022) is linked to the level of economic activity and is highly correlated to GDP growth. Real GDP advanced 2.9% in 2022, and we estimate a 1.0% change in 2023. In 2022, nominal diesel sales in Brazil advanced 2%, and in 2023, we expect a lower growth of 1.0%. In 2022, Vibra's sales volume reached 38.6 million liters of fuel, almost the same as the previous year, with a 4% increase in lightweight auto fuels, with a greater share of gasoline at the expense of ethanol in the product mix.

Aviation fuel sales are linked to the level of economic activity and passenger/cargo demand. The passenger airline industry — one of the sectors most significantly affected by the coronavirus pandemic — continues to recover volumes. In the 12 months that ended in March 2023, volume of sales in the aviation market was 4,088 thousand m³, representing a 24.2% growth from the year-earlier period.

Diffused ownership corporation

Vibra's shareholding structure is currently composed of the funds Samambaia Master Fundo (8.6% stake), Dynamo (6.5%) and BlackRock, Inc. (5.0%), and other minority shareholders (79.9%). In April 2022, Vibra's shareholders approved a new board composition. It comprises nine independent members, and the mandate ends in December 2024. These board members are from diverse backgrounds, with well-known track records. In April 2022, Sergio Rial was appointed as chairman. He was formerly chief executive officer and vice-chair of the board of Santander Brasil.

In 2019, Vibra accelerated its transition from a state-owned company to a publicly traded corporation. Therefore, it does not face the constraints of a state-owned company. Until December 2017, Vibra was 100% owned by Petrobras; following an IPO, the controlling shareholder reduced its stake to 71.3%. In a follow-on offering in July 2019, Petrobras' stake reduced to 37.5%. In June 2021, Petrobras announced the sale of its remaining 37.5% stake in Vibra. The status of a privately owned company currently supports governance and operational improvements that can help the company's competitive position and agility in decision-making.

CORPORATES MOODY'S INVESTORS SERVICE

Exhibit 8

Following an IPO in 2017, Petrobras' stake in Vibra decreased to 71.25% from 100%

Exhibit 9

Following a follow-on offering in July 2019, Vibra became a publicly traded corporation

Exhibit 10

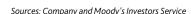
In 2021, Petrobras announced the sale of its remaining stake, and 100% of Vibra's shares are currently free float



Sources: Company and Moody's Investors Service



Sources: Company and Moody's Investors Service

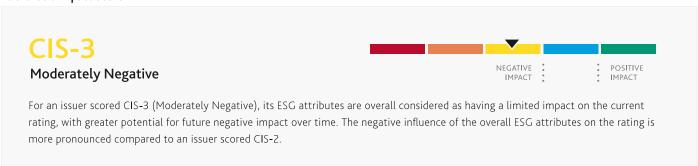


ESG considerations

Vibra Energia S.A.'s ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 11

ESG Credit Impact Score



Source: Moody's Investors Service

Fuel distributors present a high environmental and social risk exposure of fuel retailers to carbon transition and climate risk, but distributors in Brazil will observe a benign volume trend because of the increasing use of renewable fuels in the local fuel matrix. We also consider Vibra conservative financial policies benefitting the company's sustainability.

ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

The widespread and increasing usage of ethanol in Brazil mitigates carbon transition risk seen in other regions, but it leaves Brazilian fuel distributors more exposed to natural capital risk because of the nature of ethanol as an agricultural commodity derived from sugarcane and corn.

Social

Vibra social exposure is driven by demographic and societal trends relating to carbon transition. Carbon transition pressure on Brazilian fuel distributors will be lower and more gradual than in other regions because the increase usage of ethanol will help to reduce auto fuel carbon footprint and delay a meaningful adoption of electric vehicles.

Governance

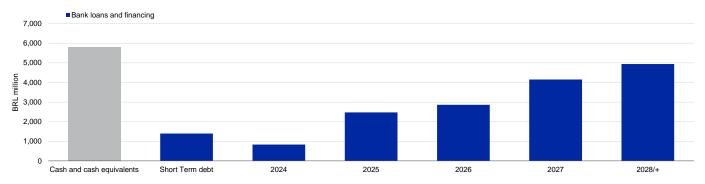
Vibra has conservative financial policies and diffuse ownership where the largest shareholder holds less than 10% of total shares and board is at least 50% comprised of independent members.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis

As of March 2023, Vibra reported BRL5.8 billion in cash and cash equivalents, compared to BRL1.4 billion in short-term debt maturities. Vibra's debt amortization profile is adequate, with an average term of 4.1 years. As of March 2023, the average cost of debt increased to around 15.2% compared with 12.0% in March 2022, mainly because of increases in the CDI (Interbank Certificate of Deposit) and index. We expect Vibra to maintain a conservative liquidity profile.

Exhibit 13 Vibra's debt amortization schedule As of March 2023



Sources: Company and Moody's Investors Service

In March 2023, Moody's-adjusted debt reached BRL18.2 billion compared with BRL19.0 billion in December 2022. During 2022 Vibra 's uses of cash included higher working capital needs, the acquisition of Comerc (for BRL3.2 billion; BRL2.0 billion in debt and BRL1.2 billion in cash), and the payment of BRL0.5 billion to shareholders in the form of dividends and interest on equity. In 2022, Vibra dividend payout represented 70% of net income. Vibra's dividend payments are likely to remain aggressive, but we do not expect them to strain liquidity or prevent neutral-to-positive FCF. Vibra's dividend policy is to distribute at least 40% of net income.

Moody's-adjusted debt includes BRL16.4 billion in bank loans and financing (including BRL9.6 billion in foreign-currency loans, fully hedged), BRL913 million from unfunded defined benefit pension plan liabilities (see <u>Vibra S.A., Update to Credit Analysis</u>, 24 June 2022) and BRL817 million in leasing. The company's adjusted gross leverage was 3.9x in March 2023, and we expect it to reach its peak of 4.2x at the end 2023 and start decreasing toward 3.8x in 2024.

Ratings

Exhibit 14

Category	Moody's Rating
VIBRA ENERGIA S.A.	
Outlook	Stable
Corporate Family Rating	Ba1
Source: Moody's Investors Service	

Methodology and scorecard

Vibra's scorecard-indicated outcome under our Retail industry rating methodology, published in November 2021, maps to Ba2 as of March 2023 and to Ba1 in our 12-18-month forward-view.

Currently, Vibra's rating is one notch above Brazil's government bond rating of Ba2. For issuers with operations concentrated within one sovereign environment, this notching difference is granted only on an exceptional basis for companies with a fundamental corporate profile that is stronger than the sovereign's government bond rating, as explained in our methodology <u>Assessing the Impact of Sovereign Credit Quality on Other Ratings</u>, published in June 2019. Vibra has a competitive leadership position in the fuel distribution business, with robust cash flow generation and financial flexibility.

Exhibit 15

Rating Factors

Vibra Energia S.A.

Methodology: Retail published on 31 Mar 2023	Curre LTM (Ma			Moody's Forward View Next 12-18 months (as of Jun-23)		
Factor 1: SCALE (10%)	Measure	Score	Measure	Score		
a) Revenue (USD Billion)	\$35.4	Α	\$30.0 - \$33.0	А		
Factor 2: BUSINESS PROFILE (30%)	.					
a) Stability of Product	А	А	A	А		
b) Execution and Competitive Position	Ba	Ва	Ва	Ва		
Factor 3: LEVERAGE AND COVERAGE (45%)						
a) EBIT / Interest Expense	1.8x	В	2.3x - 2.8x	Ва		
b) RCF / Net Debt	22.5%	Ba	13.0% - 15.0%	Ва		
c) Debt / EBITDA	4.5x	Ba	3.5x - 4.0x	Ва		
Factor 4: FINANCIAL POLICY (15%)	<u>.</u>					
a) Financial Policy	Ва	Ba	Ba	Ва		
Rating Outcome:						
a) Scorecard-Indicated Rating		Ba1		Ba1		
b) Actual Rating Assigned				Ba1		

^[1] All ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.

^[2] As of 12/31/2022.

^[3] This represents our forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures. Source: Moody's Financial MetricsTM

Appendix

Exhibit 16

Peer Comparison

	Vibra Energia S.A. Raizen S.A.				Ultrapar	Participacoes S.A	L .	Vivo Energy Limited				
		Ba1 Stable		Baa3 Stable			Ba1 Stable			Baa3 Negative		
(in US millions)	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Mar-22	FYE Mar-22	FYE Mar-23	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-20	FYE Dec-21	FYE Dec-22
Revenue	\$15,973	\$24,162	\$35,204	\$35,908	\$35,908	\$47,782	\$14,514	\$20,376	\$27,868	\$6,918	\$8,458	\$10,969
EBITDA	\$503	\$964	\$985	\$2,308	\$2,308	\$3,188	\$533	\$516	\$1,013	\$366	\$447	\$467
Total Debt	\$1,971	\$2,636	\$3,594	\$6,881	\$6,881	\$7,942	\$3,698	\$3,300	\$2,543	\$908	\$931	\$1,898
Cash & Cash Equiv.	\$646	\$651	\$785	\$1,733	\$1,733	\$1,722	\$1,481	\$803	\$1,163	\$515	\$587	\$500
EBITDA Margin	3.2%	4.0%	2.8%	6.4%	6.4%	6.7%	3.7%	2.5%	3.6%	5.3%	5.3%	4.3%
EBIT / Int. Exp.	2.8x	6.5x	2.9x	3.4x	3.4x	2.1x	2.0x	1.8x	2.2x	3.7x	5.1x	3.7x
Debt / EBITDA	4.0x	2.8x	3.7x	2.7x	2.7x	2.5x	7.1x	6.6x	2.6x	2.5x	2.1x	4.1x
RCF / Net Debt	10.5%	15.3%	22.4%	37.6%	37.6%	21.0%	23.8%	18.7%	40.6%	30.0%	45.6%	-40.5%
FCF / Debt	-2.1%	-10.5%	-4.2%	5.8%	5.8%	-11.6%	5.2%	-2.4%	-11.9%	-6.9%	7.4%	-53.5%

All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = forupgrade and DNG = for downgrade

Source: Moody's Financial MetricsTM

Endnotes

1 TRRs are companies that buy from distributors and sell diesel directly to end customers, usually agricultural and industrial companies.

© 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

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 www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1368562

+55.11.3043.7345

Contacts

Clara Tobar Associate Analyst clara.tobar@moodys.com +55.11.3956.8777

Erick Rodrigues VP-Senior Analyst

erick.rodrigues@moodys.com

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

