

CREDIT OPINION

13 March 2024

Update



Send Your Feedback

Contacts

Christian Fang +971.4.237.9534
VP-Senior Analyst
christian.fang@moodys.com

David Rogovic +1.212.553.4196
VP-Sr Credit Officer
david.rogovic@moodys.com

Yamina Ben-Naoum +44.20.3314.2470
Ratings Associate
yamina.ben-naoum@moodys.com

Marco Santaniello +44.20.3314.2032
Ratings Associate
marco.santaniello@moodys.com

Matt Robinson +44.20.7772.5635
Associate Managing Director
matt.robinson@moodys.com

Marie Diron +44.20.7772.1968
MD-Global Sovereign Risk
marie.diron@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

Government of Rwanda – B2 stable

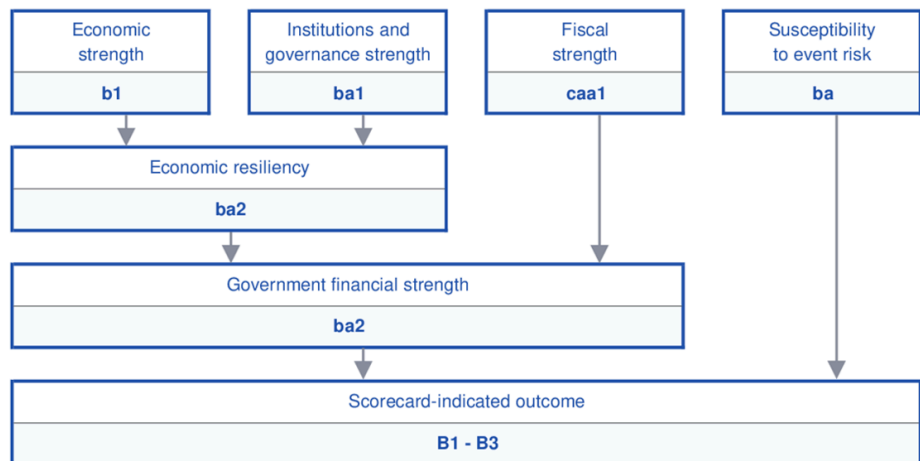
Regular Update

Summary

Rwanda's credit profile reflects its small and low-income economy that is vulnerable to shocks, high government debt burden, and challenging regional geopolitics. Credit supports include the country's strong growth prospects, relatively effective institutions with a track record of policy implementation, and strong development partner support.

Exhibit 1

Rwanda's credit profile is determined by four factors



Source: Moody's Ratings

Credit strengths

- » High growth prospects, supported by a favourable business environment
- » Relatively effective institutions with strong development partner financial support

Credit challenges

- » Small, low-income economy that constrains its shock absorption capacity
- » High debt burden for the size of the economy and income levels

As of the date of this report this Issuer has declined to participate in the Credit Rating process, and has not provided Moody's with access to its books, records and other internal documents. For more information about Non-Participating Rated Entities, see [Moody's Policy for Designating Non-Participating Rated Entities](#).

Rating outlook

The stable outlook is underpinned by our assessment that Rwanda's institutions and policies will continue to be effective in preserving the government's credit profile even in case of a shock. We expect the government's commitment to fiscal consolidation and revenue enhancement to keep its debt burden broadly stable. At the same time, economic growth will remain strong and support debt sustainability, driven by large infrastructure investment and robust activity in the tourism sector. These factors help mitigate downside risks stemming from climate shocks that reduce the country's agriculture output and are in part driving a wider current account deficit.

Factors that could lead to an upgrade

The rating could be upgraded if effective implementation of the government's fiscal reforms including its medium-term revenue strategy raises prospects that its debt burden would materially decline, thereby increasing its fiscal space to counter shocks. A significant and durable strengthening of Rwanda's external position that reduces the country's reliance on external debt financing and exposure to exogenous shocks may also prompt a rating upgrade. In addition, a sustained reduction in geopolitical risks that expands regional trade and increases Rwanda's potential as a regional hub would also put upward pressure on the rating.

Factors that could lead to a downgrade

A downgrade of the rating would be likely if prospects for fiscal consolidation were to weaken, resulting in a persistent increase in Rwanda's debt burden over the medium term. A deterioration in the external position – potentially stemming from weaknesses in the services sectors – that significantly weakens Rwanda's foreign exchange reserve adequacy would also likely prompt a downgrade of the rating. In addition, any notable reduction in financial support from international development partners over the medium term that is not accompanied by stronger stand-alone economic resiliency and access to private financing would exert downward pressure on the rating.

Key indicators

Exhibit 2

Rwanda	2018E	2019E	2020E	2021E	2022E	2023E	2024F	2025F
Real GDP (% change)	8.5	9.5	-3.4	10.9	8.2	6.5	6.8	7.0
Inflation rate (% change average)	1.4	2.4	7.7	0.8	13.9	14.5	5.4	5.0
Gen. gov. financial balance/GDP (%) [1]	-2.7	-5.4	-9.8	-7.5	-6.6	-5.3	-5.1	-5.0
Gen. gov. primary balance/GDP (%) [1]	-1.5	-4.2	-8.3	-5.7	-4.8	-3.7	-3.6	-3.4
Gen. gov. debt/GDP (%)	45.7	50.9	67.2	69.0	64.1	62.4	65.8	65.5
Gen. gov. debt/revenues (%)	192.0	220.0	281.1	280.8	268.0	282.8	279.0	275.1
Gen. gov. interest payment/revenues (%) [1]	4.9	5.6	6.8	7.4	7.8	6.8	6.4	6.5
Current account balance/GDP (%)	-10.1	-11.9	-12.1	-11.2	-9.8	-12.4	-11.3	-9.9
External debt/CA receipts (%) [2]	196.3	214.0	294.8	293.8	221.4	186.7	196.8	192.2
External vulnerability indicator (EVI) [3]	44.2	48.6	37.2	51.3	40.4	73.9	34.7	33.8

[1] Fiscal years ending June 30, e.g. 2020 refers to fiscal year 2019/20

[2] Current Account Receipts

[3] (Short-Term External Debt + Currently Maturing Long-Term External Debt + Total Nonresident Deposits Over One Year)/Official Foreign Exchange Reserves

Source: Moody's 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.

Detailed credit considerations

Our assessment of Rwanda's **economic strength** at "b1" balances the country's high growth potential and historical growth rates, supported by a favourable business environment and reputation for safety and public sector efficiency which provide some competitive advantages, against constraints related to its small size and very low income levels.

Rwanda faces a number of development challenges, including its landlocked position, limited human capital and challenging geopolitical environment in developing as a regional services hub. Furthermore, as identified in [our report on environmental risks and their impact on sovereigns](#), Rwanda's credit profile is particularly susceptible to climate risks. Rwanda's low income levels and small size magnify its exposure to climate trends and shocks, given the economy's heavy reliance on agriculture as a share of GDP and employment. Periods of drought and heavy rains can significantly affect agricultural production, weighing on rural incomes and raising domestic inflation and poverty levels. Heavy rain could also destroy infrastructure including roads and bridges.

Rwanda's "ba1" **institutions and governance strength** is underpinned by its track record of policy implementation and reforms. Rwanda has built a reputation of efficient utilisation of concessional funding sources from the official sector to achieve sustainable and inclusive growth, as measured by the World Bank's Country Policy and Institutional Assessment score. Policymaking institutions have also demonstrated their ability to manage large shocks while preserving the government's credit profile. However, relatively volatile, and high, inflation and the sharp rise in the government debt burden over the past decade weigh on our assessment of monetary and fiscal policy effectiveness.

We assess Rwanda's **fiscal strength** to be "caa1", reflecting the government's high debt burden and large share of foreign currency-denominated debt that is vulnerable to sharp local currency depreciation. We set the final score below the initial score of "b3" because we expect local currency depreciation to result in a larger negative adjustment for foreign currency debt to GDP that is not currently reflected in the scorecard metrics. That said, the government remains committed to fiscal and debt consolidation under its Policy Coordination Instrument (PCI) with the International Monetary Fund (IMF), which will keep its overall debt burden stable. The very high share of concessional debt means interest payments remain very low and debt remains highly affordable.

We assess Rwanda's **susceptibility to event risk** at "ba", driven mainly by political risk and external vulnerability risk.

Our "ba" assessment of **political risk** stems in part from long-standing frictions with neighbouring countries and the potential for domestic instability in these countries to spillover into Rwanda. These geopolitical challenges constrain Rwanda's longer-term development as a regional services hub. At the same time, very low income levels drive domestic socio-political challenges, although the government has been effective in its pursuit of social protection through targeted transfers and support measures. There are also longer-term presidential transition risks surrounding the succession to President Paul Kagame.

Rwanda's "ba" **external vulnerability risk** reflects the challenges inherent to a small landlocked economy with a structural trade deficit because of its reliance on imports. Our score also captures the country's still relatively low levels of foreign direct investment to fund the current account deficit. Rwanda's foreign exchange reserves are sufficient to cover around three to four months of imports and all external repayments due over the next year, but any shortfall in official financing could quickly weaken the country's external position.

We assess **government liquidity risk** to be "ba" as the government's financing sources are somewhat limited. The relatively small domestic financial market limits the sovereign's ability to finance itself domestically, although financial support from development partners remain strong and forthcoming, which mitigates refinancing risks.

The small but relatively well regulated banking sector limits the potential for contingent liabilities and informs our assessment of **banking sector risk** at "baa".

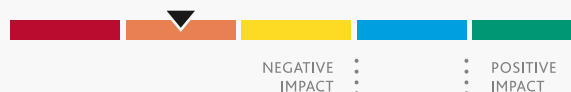
ESG considerations

Rwanda's ESG credit impact score is CIS-4

Exhibit 3

ESG credit impact score

CIS-4



ESG considerations have a discernible impact on the current rating, which is lower than it would have been if ESG risks did not exist. The negative impact of ESG considerations on the rating is higher than for an issuer scored CIS-3.

Source: Moody's Ratings

Rwanda's ESG Credit Impact Score (**CIS-4**) indicates that the rating is lower than it would have been if ESG risk exposures did not exist. This reflects highly negative exposure to environmental and social risks, which is not fully mitigated by governance.

Exhibit 4

ESG issuer profile scores

ENVIRONMENTAL

E-4



SOCIAL

S-4



GOVERNANCE

G-3



Source: Moody's Ratings

Environmental

Rwanda's exposure to environmental risks (**E-4** issuer profile score) is driven mainly by its physical climate vulnerability. Periods of droughts and flooding can affect the output and income earned by the sizable portion of the economy employed in the agriculture sector, and result in inflationary pressures and increased poverty. The government is prioritising climate risk mitigation and resilience in its economic development strategy, with assistance from development partners. Meanwhile, the country's still developing infrastructure, particularly in the rural areas, also means that a significant portion of the population does not have access to safe drinking water.

Social

The exposure to social risks (**S-4** issuer profile score) is mainly related to high levels of poverty, as well as limited access to basic services outside of the urban areas. These challenges are exacerbated by the still relatively poor physical infrastructure in rural areas that will take a long time to develop because of the country's terrain – hence affecting around three quarters of the population – while school enrolment and completion rates remain low. That said, the government's social protection programmes, supported by development partners, help mitigate some of the social challenges and has helped built trust in institutions.

Governance

The moderately negative influence of governance on Rwanda's credit profile (**G-3** issuer profile score) captures a lengthening track record of policy implementation and reforms although institutional frameworks are still evolving. Rwanda has built a reputation of efficient utilisation of concessional funding sources from the official sector to achieve sustainable and inclusive growth, as measured

by the World Bank's Country Policy and Institutional Assessment score. While public sector accountability is robust and stronger than peers, there is limited voice and representation of civil society in policymaking.

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.

All of these considerations are further discussed in the "Detailed credit considerations" section above. Our approach to ESG is explained in our report on how the [scores depict varied and largely credit-negative impact of ESG factors](#) and our cross-sector methodology [General Principles for Assessing Environmental, Social and Governance Risks Methodology](#).

Recent developments

Rwanda's economic growth remains robust in the face of successive shocks, while inflation is declining from high levels

After a strong post-pandemic recovery, we estimate that Rwanda's real GDP growth moderated to 6.5% in 2023, down from 8.2% in 2022. This growth moderation was due mainly to environmental shocks such as droughts and floods, especially the severe flooding in March 2023, which led to consecutive weak agricultural seasons. Agricultural production was further hampered by higher fertiliser prices, a fallout of the military conflict between Russia and [Ukraine](#) (Ca stable). This pushed inflation to extremely high levels, negatively impacting households' purchasing power. However, the tourism sector has continued to rebound strongly post-pandemic, with tourist arrivals in 2023 showing a threefold increase compared to 2021, thereby supporting growth.

We expect real GDP growth to rebound to around 7% in 2024-25 in the absence of further shocks, driven by the tourism sector and ongoing large investments including in Bugesera airport. Meanwhile, inflation has eased and we expect inflation to average around 5% in 2024-25 assuming domestic food production and prices stabilise.

The new IMF Stand-by Credit Facility will shore up Rwanda's external buffers

In November 2023, Rwanda requested a 14-month Stand-by Credit Facility (SCF) arrangement with the IMF to be implemented concurrently with its PCI. The SCF, which was approved in December 2023, provides the authorities with access to \$268 million to shore up the country's foreign exchange reserves. While the PCI, which is not accompanied by any financing, continues to provide an anchor to support the authorities' medium-term policy objectives, the SCF will provide short-term external financing given Rwanda's exposure to shocks. Rwanda also has access to the IMF's Resilience and Sustainability Facility (RSF) for \$310 million.

Higher imports partly due to the construction of Bugesera airport, which is likely to be completed by 2026-27, has lowered Rwanda's coverage of imports by foreign exchange reserves. Although foreign exchange reserves rose slightly to \$2.1 billion as of the end of 2023 from \$1.7 billion a year ago, the coverage of imports fell to 3.4 months at the end of 2023 from an average of close to 4 months over 2020-22. Concessional external financing from the IMF and other development partners will help shore up Rwanda's external buffers. We expect the current account deficit to remain wide around 11% of GDP in 2024-25, compared to an average of around 10% in 2021-22 because of higher imports despite robust tourism activity.

Ongoing fiscal consolidation and revenue enhancement will keep debt burden on stable to declining path

We expect Rwanda's fiscal deficit to remain around 5% of GDP in fiscal 2024 (ending June 2024). Continued revenue growth – driven by measures such as applying VAT to IT equipment and mobile phones, increasing the fuel levy, raising excises, and enhancing revenue administration – will offset the sizeable spending on infrastructure projects (including Bugesera airport) and reconstruction costs incurred from the May 2023 floods. While infrastructure spending will keep expenditure elevated for some time, Rwanda's fiscal deficit is likely to narrow to around 4-4.5% of GDP by fiscal 2026, given the government's commitment to revenue expansion anchored by its IMF programmes.

Based on our fiscal projections, we estimate that Rwanda's government debt burden will stay around 64-66% of GDP over the next few years, with a slight declining trend. Three consecutive years of narrowing fiscal deficits since fiscal 2020 has lowered the government debt burden to our estimate of around 62% of GDP at the end of 2023, from a peak of 69% at the end of 2021, although the debt burden is likely to increase to about 66% by the end of 2024 due to depreciation of the Rwandan franc. We expect the debt burden to remain higher than the pre-pandemic level of around 50% of GDP, and around 25-30% a decade ago.

Moody's rating methodology and scorecard factors: Rwanda - B2 Stable

Factor / Sub-Factor	Metric	Indicator Year	Indicator	Initial Factor Score	Final Factor Score	Weights
Factor 1: Economic strength				b1	b1	50%
Growth dynamics	Average real GDP growth (%)	2018-2027F	6.9	aaa		25%
	MAD Volatility in Real GDP Growth (%)	2013-2022	2.0	ba3		10%
Scale of the economy	Nominal GDP (\$ billion)	2022	13.3	caa1		30%
National income	GDP per capita (PPP, Int\$)	2022	2,904.2	ca		35%
Adjustment to factor 1	# notches				0	max ±9
Factor 2: Institutions and governance strength				ba1	ba1	50%
Quality of institutions	Quality of legislative and executive institutions			baa		20%
	Strength of civil society and the judiciary			ba		20%
Policy effectiveness	Fiscal policy effectiveness			ba		30%
	Monetary and macroeconomic policy effectiveness			ba		30%
Specified adjustment	Government default history and track record of arrears				0	max -3
Other adjustment to factor 2	# notches				0	max ±3
F1 x F2: Economic resiliency				ba2	ba2	
Factor 3: Fiscal strength				b3	caa1	
Debt burden	General government debt/GDP (%)	2022	64.1	baa3		50%
	General government debt/revenue (%)	2022	268.0	ba2		50%
Debt affordability	General government interest payments/revenue (%)	2022	7.8	a1		0%
	General government interest payments/GDP (%)	2022	1.9	a1		0%
Specified adjustments	Total of specified adjustment (# notches)			-5	-6	max ±6
	Debt Trend - Historical Change in Debt Burden	2014-2022	35.4	-1	-1	
	Debt Trend - Expected Change in Debt Burden	2022-2024F	1.7	0	0	
	General Government Foreign Currency Debt/ GDP	2022	48.0	-4	-5	
	Other non-financial public sector debt/GDP	2022	3.4	0	0	
	Government Financial Assets including Sovereign Wealth Funds / GDP	2022	0.0	0	0	
	Other adjustment to factor 3				0	max ±3
	# notches					
F1 x F2 x F3: Government financial strength				ba2	ba2	
Factor 4: Susceptibility to event risk				ba	ba	Min
Political risk	Domestic political risk and geopolitical risk				ba	
				ba		
Government liquidity risk	Ease of access to funding			ba	ba	
				ba		
Specified adjustment	High refinancing risk				0	max -2
Banking sector risk	Risk of banking sector credit event (BSCE)	Latest available	--	baa	baa	
	Total domestic bank assets/GDP	2022	32.2	ba3-b3		
Adjustment to F4 BSR	# notches				0	max ±2
External vulnerability risk	External vulnerability risk			ba	ba	
				ba		
Adjustment to F4 EVR	# notches				0	max ±2
Overall adjustment to F4	# notches				0	max -2
F1 x F2 x F3 x F4: Scorecard-indicated outcome				B1 - B3	B1 - B3	

Note: While information used to determine the grid mapping is mainly historical, our ratings incorporate expectations around future metrics and risk developments that may differ from the ones implied by the scorecard-indicated outcome. Thus, the rating process is deliberative and not mechanical, meaning that it depends on peer comparisons and should leave room for exceptional risk factors to be taken into account that may result in an assigned rating outside the scorecard-indicated outcome. For more information please see our Sovereign Ratings Methodology.

Footnotes: (1) **Initial factor score:** scorecard indicators combine with the automatic adjustments to produce an initial factor score for every rating factor, as detailed in Moody's Sovereign Ratings Methodology. (2) **Final factor score:** where additional analytical considerations exist, initial factor scores are augmented to produce a final factor score. Guidance on additional factors typically considered can be found in Moody's Sovereign Ratings Methodology; details on country-specific considerations are provided in Moody's research. (3) **Scorecard-indicated outcome:** Factor 1: Economic Strength, and Factor 2: Institutions and Governance Strength, combine with equal weight into a construct we designate as Economic Resiliency (ER). An aggregation function then combines ER and Factor 3: Fiscal Strength, following a non-linear pattern where Fiscal Strength has higher weight for countries with moderate ER and lower weight for countries with high or low ER. As a final step, Factor 4, a country's Susceptibility to Event Risk, is a constraint which can only lower the government financial strength as given by combining the first three factors. (4) **There are 20 ranking categories for quantitative sub-factors:** aaa, aa1, aa2, aa3, a1, a2, a3, baa1, baa2, baa3, ba1, ba2, ba3, b1, b2, b3, caa1, caa2, caa3, ca and 8 ranking categories for qualitative sub-factors: aaa, aa, a, baa, ba, b, caa, ca (5) **Indicator value:** if not explicitly stated otherwise, the indicator value corresponds to the latest data available.

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

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

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

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

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

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

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

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

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