

CREDIT OPINION

21 March 2024

Update



Send Your Feedback

Contacts

William Foster +1.212.553.4741
 Senior Vice President
 william.foster@moodys.com

Dylan Walsh +1.212.553.3583
 Ratings Associate
 dylan.walsh@moodys.com

Mauro Leos +1.212.553.1947
 Associate Managing Director
 mauro.leos@moodys.com

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

Government of Dominican Republic – Ba3 Positive

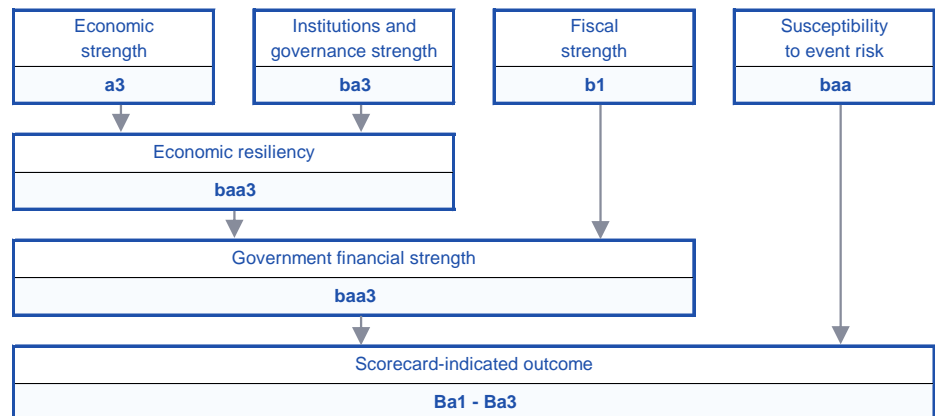
Regular Update

Summary

The [Dominican Republic's](#) credit profile balances its strong growth dynamics and contained external and government liquidity risks with relatively weak fiscal and institutional strength. The country rebounded very strongly from the coronavirus pandemic economic and fiscal shock, reflected in sustained high growth rates, strong investment flows and a declining debt burden. However, debt affordability remains weak and foreign currency borrowing is high.

Exhibit 1

Dominican Republic's credit profile is determined by four factors



Source: Moody's Ratings

Credit strengths

- » Sustained real GDP growth of more than 5% over a 15-year period
- » Favorable debt maturity profile and proven market access in times of turmoil
- » Increased foreign-exchange reserves coverage, which limits external risks

Credit challenges

- » Weak debt affordability driven by a narrow revenue base and large share of foreign currency-denominated debt
- » Weak, but improving, institutional strength

Rating outlook

The positive rating outlook reflects our view that: (1) sustained high growth rates will continue to enhance the scale and wealth levels of the economy; and (2) a material decline in the government debt burden coupled with improved fiscal policy effectiveness will support medium-term debt sustainability. We also expect balance of payments and government liquidity risks to remain contained.

Factors that could lead to an upgrade

The rating could be upgraded if fiscal metrics continue to improve and the government implements policy measures that further strengthen medium-term debt sustainability. In particular, increased debt affordability supported by higher government revenue on the back of broad-based tax reforms, and measures that materially reduce the share of foreign currency-denominated government debt, would strengthen the country's fiscal position and overall sovereign credit profile.

Factors that could lead to a downgrade

The outlook would likely be returned to stable if growth performance and fiscal policy outcomes prove to not be in line with Moody's expectations. The rating would face downward pressure if the authorities deviated significantly from their current medium-term fiscal consolidation plans, resulting in a material increase in the public debt ratio. A weakening of external accounts that results in an upward structural shift in the current account deficit and a sustained decrease in foreign-exchange reserves would also exert downward pressure on the sovereign credit profile.

Key indicators

Exhibit 2

Dominican Republic	2018	2019	2020	2021	2022	2023E	2024F	2025F
Real GDP (% change)	7.0	5.0	-6.7	12.3	4.9	2.5	5.2	5.0
Inflation rate (% change average)	3.6	1.8	3.8	8.2	8.8	4.8	3.8	4.0
Gen. gov. financial balance/GDP (%) [1]	-2.3	-3.6	-8.3	-2.7	-3.4	-3.1	-3.2	-3.0
Gen. gov. primary balance/GDP (%) [1]	0.3	-0.9	-5.1	0.4	-0.6	0.0	0.4	0.7
Gen. gov. debt/GDP (%)	38.2	41.7	58.4	50.9	46.7	46.6	48.3	48.7
Gen. gov. debt/revenues (%)	269.0	289.8	411.6	326.1	306.1	294.9	310.0	316.2
Gen. gov. interest payment/revenues (%) [1]	18.2	19.1	22.8	20.0	18.7	19.5	23.1	24.0
Current account balance/GDP (%)	-1.5	-1.3	-1.7	-2.8	-5.6	-3.8	-3.6	-3.5
External debt/CA receipts (%) [2]	125.0	130.6	184.8	143.0	126.9	--	--	--
External vulnerability indicator (EVI) [3]	50.7	53.4	80.5	28.9	30.1	41.3	39.9	34.6

[1] Central government

[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.com> for the most updated credit rating action information and rating history.

Detailed credit considerations

We assess the Dominican Republic's **economic strength** score as "a3," reflecting sustained high real GDP growth rates that have materially increased the scale and wealth levels of the economy over the long term. Prior to the pandemic, real GDP growth averaged 5.6% annually from 2010-2019. It rebounded very strongly to 12.3% in 2021 and 4.9% in 2022, supported by effective health and fiscal policy responses to the pandemic and an upward shift in the investment ratio, which increased substantially to 33% of GDP in 2022 from an average of 25% in 2017-19. Ongoing development of the tourism sector, which has expanded into higher-end offerings and more international markets, has contributed significantly to growth in recent years. We expect growth to moderate to around 3.0% in 2023, reflecting a slowdown from tighter domestic and global financial conditions, and rebound to about 5% from 2024 onward, in line with the country's economic growth potential, supported by the easing of monetary policy conditions.

Persistent high growth rates have driven an expansion of the economy's scale and wealth levels. Nominal GDP increased to \$114 billion in 2022 from \$79 billion in 2020, above the Ba3-rated peer median of \$70 billion. Meanwhile, GDP per capita increased to \$24,117 (on a PPP basis) in 2022 from \$18,642 in 2020, also above the Ba3-rated peer median of \$9,634. While the scale of the economy is comparatively small on a global level, it is the largest in the Caribbean and is relatively well diversified for an island economy with significant contributions coming from the manufacturing, construction, services and agriculture sectors.

We set the score for **institutions and governance strength** at "ba3," reflecting the Dominican Republic's relatively weak, but improving, institutional strength. In recent years, the country's Worldwide Governance Indicator scores have demonstrated improvements across key indicators including government effectiveness, rule of law and control of corruption, albeit from low levels. Stronger government effectiveness has contributed to the country's swift recovery from the pandemic, improved fiscal performance and declining inflation. Fiscal policy effectiveness has increased, as evidenced by the government's use of counter-cyclical policies to support growth during the pandemic and subsequent fiscal consolidation efforts which have led to a material reduction of the government deficit. At the same time, monetary policy management and macroeconomic policies have been effective in reducing inflation and containing balance-of-payments risks.

We assess the Dominican Republic's **fiscal strength** score as "b1," reflecting recent improvement in fiscal trends along with long-standing credit challenges which include: (i) a shallow revenue base compared to peers, (ii) weak debt affordability metrics, and (iii) high exposure to foreign currency borrowing. Our assessment includes a negative adjustment of three notches for exposure to foreign-exchange risks (government foreign currency debt amounted to around 35% of GDP in 2022). At around 70%, the share of foreign currency-denominated sovereign debt implies the government's balance sheet is somewhat exposed to exchange rate shocks.

Improved fiscal dynamics have reduced the general government debt burden to nearly 46% of GDP in 2022 from a high of about 57% in 2020, driven by a narrowing of the general government fiscal deficit to 3.4% of GDP in 2022 from 8.3% in 2020 and high nominal GDP growth. Looking ahead, we expect debt to stabilize around current levels and the fiscal deficits to remain just above 3.0% in 2024. Debt affordability is weak in absolute and relative terms with interest payments representing nearly 19% of government revenue in 2022, almost twice the median of Ba3-rated peers. We expect this ratio to rise to around 23% in 2024. Debt affordability is constrained by low general government revenue generation, which at around 15% of GDP in 2022, is well below the median of about 26% for Ba-rated peers.

Our "baa" **susceptibility to event risk** score is driven by government liquidity risk, banking sector risk and external vulnerability risk, all of which we consider to be relatively contained.

The "baa" score for **government liquidity risk** reflects that the government's balance sheet faces exchange-rate risk from a high share of foreign currency-denominated financial obligations, which account for more than two-thirds of government debt, despite efforts by the authorities to develop the domestic government bond market. However, the structure of sovereign debt has improved, with longer debt maturities and higher shares of domestically issued and fixed-rate debt.

We assess **banking sector risk** at "baa," given the low probability of the banking sector representing an important contingent liability for the government. We take into account the relatively high level of dollarization, which exposes banks to a sudden depreciation in the Dominican peso. Financial depth is among the lowest in Latin America, with total domestic banking sector assets equal to around 44% of nominal GDP in 2022. Overall, the banking sector is well regulated. Meanwhile, stable deposits and adequate liquidity buffers support financial flexibility.

The **external vulnerability risk** score of “baa” reflects the strength of foreign-exchange reserves and capacity to meet external obligations. Foreign exchange reserves reached an all-time high in 2023, supported by strong inflows coming from tourism activity, steady family remittances and rising FDI. Although the Dominican Republic consistently runs current account deficits, we expect the deficits to continue to be financed largely by FDI inflows, which have been in the order of around 3.5% of GDP annually. The country's External Vulnerability Indicator (EVI), the ratio of external liabilities due within one year relative to foreign exchange reserves, is relatively low standing at about 40%.

The susceptibility to event risk score also includes our assessment of **political risk** at “a.” On 5 July 2020, Luis Abinader from the Modern Revolutionary Party (PRM) won 53% of the votes in the presidential election, ending the Dominican Liberation Party's (PLD) 16 years of reign. Political risk remains relatively low in the country and Abinader remains popular. He will run for reelection in the upcoming presidential election in May 2024. Overall government policies have been supportive of the economy with no major shifts in policy priorities or political risk that could materially weaken the sovereign credit profile.

ESG considerations

Dominican Republic'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

CIS-4 indicates the rating is lower than it would have been if ESG risk exposures did not exist. For the Dominican Republic, this mainly reflects high exposure to environmental risk related to physical climate risks that are impacted by climate change.

Exhibit 4

ESG issuer profile scores

ENVIRONMENTAL

E-4



SOCIAL

S-3



GOVERNANCE

G-3



Source: Moody's Ratings

Environmental

E-4. Dominican Republic's exposure to environmental risk is driven mainly by risks related to physical climate change and water issues. The country's geographical location in the Caribbean exposes it to natural disasters from hurricanes and rising sea levels. Climate events can harm the agricultural export sector through lower crop yields, damage infrastructure and reduce tourism revenues. While the large size and geography of the island help mitigate risks, the increasing frequency and severity of natural disasters in recent years intensify risks.

Social

S-3. Dominican Republic's exposure to social risks have been mitigated by two decades of sustained high economic growth rates that have contributed to poverty reduction and rising per capita income levels. However, challenges related to education, health, safety and access to basic services will likely continue to pressure government finances, particularly in the context of the country's very narrow revenue base.

Governance

G-3. The Dominican Republic's governance score reflects its relatively weak, but improving, government effectiveness, budget management, rule of law and control of corruption.

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

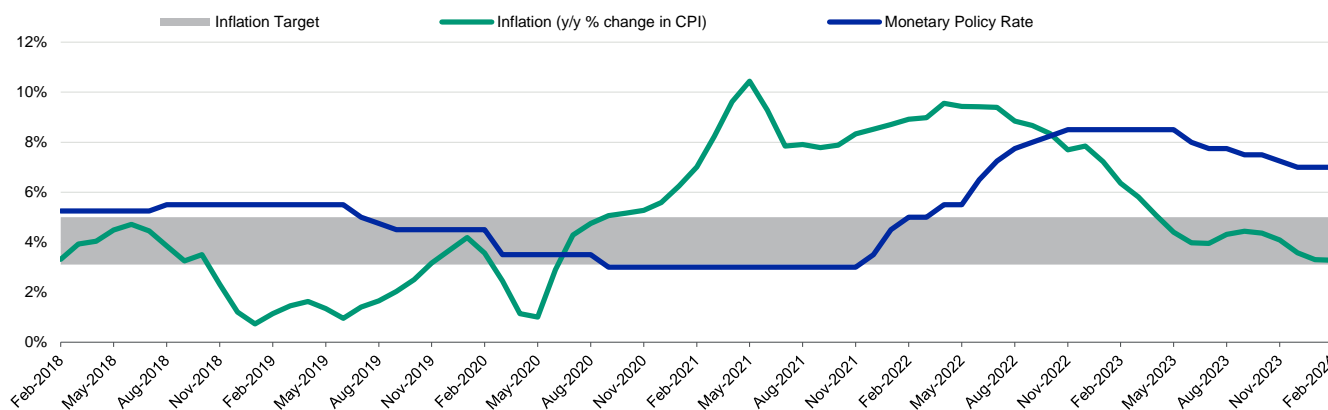
Central bank easing is currently on hold as inflation remains within target range

On 29 February 2024, the Central Bank of the Dominican Republic (BCRD) maintained its monetary policy rate at 7.00%, marking the third consecutive meeting in which it decided to leave the policy rate unchanged. The bank's most recent rate cut occurred in its November 2023 meeting, where it decided to cut the policy by 25 basis points (bps) to 7.00%. Over the course of 2023, the BCRD eased rates by a total of 150 bps. In its decision to hold rates steady, the bank has highlighted international considerations related to the global interest rate environment and likelihood of international rates being held higher for longer. The launch of the bank's easing cycle in 2023 has been supported by a decline in inflation that currently sits within its target inflation range of 4% ($\pm 1\%$).

As of February 2024, the year-over-year CPI inflation rate was 3.30%, a slight decrease from 3.32% in January and the lowest rate of inflation since June 2020 (see Exhibit 5). Inflation has remained within the BCRD's target range since May 2023. Core inflation, which removes the more volatile components of the CPI, was 3.95% year-on-year in February 2024, down from 4.09% in January and continuing its downward trend from a high of 7.29% in May 2022. We expect inflation to remain within the central bank's target range in 2024 and 2025.

Exhibit 5

Monetary policy easing cycle is on hold as inflation remains within the BCRD's target range



Source: Central Bank of the Dominican Republic and Haver Analytics

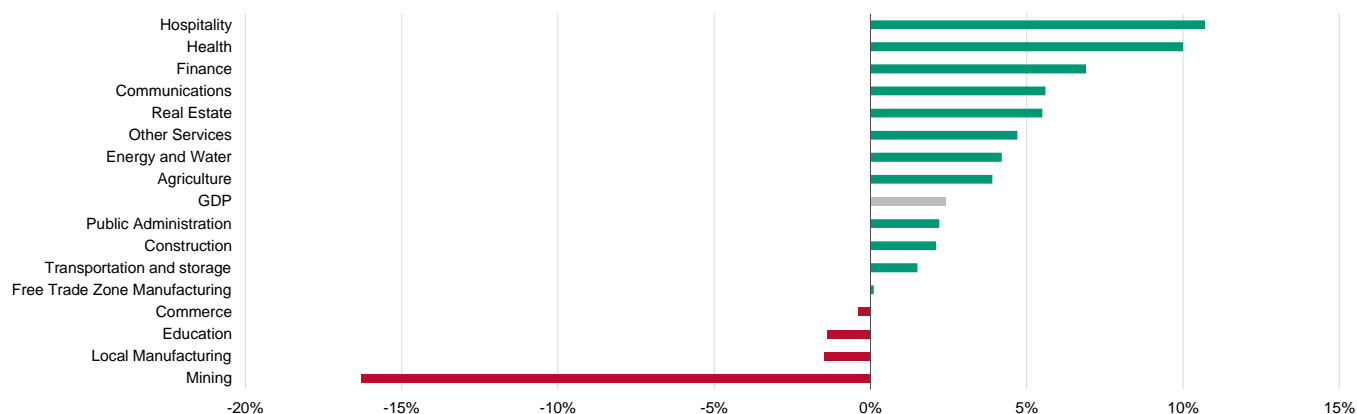
Preliminary results of economic activity indicate that growth slowed to 2.4% in 2023

In the central bank's report on preliminary results of the Dominican Republic's economic performance in 2023 (January-December), GDP growth increased by 2.4% over the same period last year. The final result was driven by increased economic activity in the final quarter of 2023 as the monthly indicator of economic activity (IMAE) registered its three strongest months of interannual expansion in October, November and December at 3.6%, 4.2% and 4.7%, respectively. The hotels, bars and restaurants (hospitality) sector of the economy registered the largest inter-annual increase at 10.7%, followed by the health sector at around 10% (see Exhibit 6). The results align with continued strong tourism growth in 2023 (see below for more details). The central bank also noted that the construction sector, an important sector in the Dominican economy because of its multiplier effect, has recorded positive growth rates since July 2023, largely as a result of liquidity provision measures supported by the Ministry of Finance and central bank.

Exhibit 6

The hospitality and health sectors were the main drivers of growth in 2023

Change in real GDP in 2023* from 2022 (in percentage terms)



*Preliminary results

Source: Central Bank of the Dominican Republic

The moderation of real GDP growth in 2023 from 4.9% in 2022 reflects the dampening effect of higher interest rates on demand during the first three quarters of the year. For 2024, we forecast GDP growth to increase to around 5%, supported by lower interest rates, which we expect to contribute to improved construction activity and continued growth in the tourism and services sectors.

Tourism is an important source of growth for the economy. In 2023 the tourism sector registered around 10.3 million tourist arrivals, achieving the Ministry of Tourism's goal of over 10 million visitors for the full year and contributing about \$9.8 billion in revenue (see Exhibit 7). The record annual total of tourist arrivals also included a monthly record of about 0.9 million air arrivals in December 2023. The number of tourist arrivals by air was up by around 13% over last year, while the number by sea increased by 70%, as more cruise ship passengers visited the island via Puerto Plata. Over the medium term (next three to five years), the Ministry of Tourism expects growth to stabilize at around 5%-6% annually.

Exhibit 7

Tourism continued its strong growth in 2023

	2022	2023*	Difference 2023 vs 2022
Tourist Arrivals	8,488,856	10,317,612	1,828,756.3
Air	7,163,414	8,058,671	895,257.3
Maritime	1,325,442	2,258,941	933,499.0
Hotel Occupancy Rate (%)	71.5	74.7	3.2
Tourism Revenue \$US million	8,167.8	9,828.9	1,661.1

*Preliminary results

Source: Central Bank of the Dominican Republic

Moody's rating methodology and scorecard factors: Dominican Republic — Ba3 positive

Factor / Sub-Factor	Metric	Indicator Year	Indicator	Initial Factor Score	Final Factor Score	Weights
Factor 1: Economic strength				a3	a3	50%
Growth dynamics	Average real GDP growth (%)	2018-2027F	4.6	aa3		25%
	MAD Volatility in Real GDP Growth (%)	2013-2022	1.1	baa3		10%
Scale of the economy	Nominal GDP (\$ billion)	2022	113.5	baa2		30%
National income	GDP per capita (PPP, Int\$)	2022	24,116.8	a3		35%
Adjustment to factor 1	# notches				0	max ±9
Factor 2: Institutions and governance strength				ba3	ba3	50%
Quality of institutions	Quality of legislative and executive institutions			ba		20%
	Strength of civil society and the judiciary			b		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				baa3	baa3	
Factor 3: Fiscal strength				b1	b1	
Debt burden	General government debt/GDP (%)	2022	46.7	a3		25%
	General government debt/revenue (%)	2022	306.1	ba3		25%
Debt affordability	General government interest payments/revenue (%)	2022	18.7	b2		25%
	General government interest payments/GDP (%)	2022	2.8	baa2		25%
Specified adjustments	Total of specified adjustment (# notches)			-3	-3	max ±6
	Debt Trend - Historical Change in Debt Burden	2014-2022	10.6	0	0	
	Debt Trend - Expected Change in Debt Burden	2022-2024F	1.6	0	0	
	General Government Foreign Currency Debt/ GDP	2022	35.0	-3	-3	
	Other non-financial public sector debt/GDP	2022	0.2	0	0	
	Government Financial Assets including Sovereign Wealth Funds / GDP	2022	0.9	0	0	
	Other adjustment to factor 3	# notches			0	max ±3
F1 x F2 x F3: Government financial strength				baa3	baa3	
Factor 4: Susceptibility to event risk				baa	baa	Min
Political risk	Domestic political risk and geopolitical risk			a		
Government liquidity risk	Ease of access to funding			baa	baa	
Specified adjustment	High refinancing risk			baa		
Banking sector risk	Risk of banking sector credit event (BSCE)	Latest available	ba3	ba3-b3		
	Total domestic bank assets/GDP	2022	43.7	<80		
Adjustment to F4 BSR	# notches				0	max ±2
External vulnerability risk	External vulnerability risk			baa	baa	
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				Ba1 - Ba3	Ba1 - Ba3	

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.