

## CREDIT OPINION

25 July 2025



#### Contacts

Cintia Nazima +1.212.553.1631 VP – Senior Analyst

cintia.nazima@moodys.com

Bryan Choi 12125534163
Ratings Associate
bryan.choi@moodys.com

Kurt Krummenacker +1.212.553.7207

Associate Managing Director
kurt.krummenacker@moodys.com

#### **CLIENT SERVICES**

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

# Central Florida Expressway Authority, FL

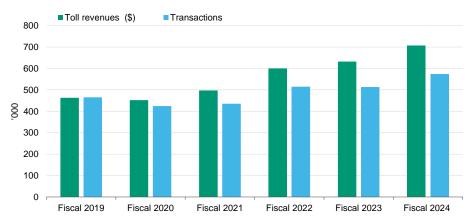
Update following upgrade to Aa3 from A1

# **Summary**

Central Florida Expressway Authority's (CFX; Aa3 senior and A1 junior ratings; stable outlook) credit profile reflects strong traffic and revenue performance that together with a proactive approach to undertaking capital improvement and expansion projects to serve a rapidly growing service area result in strong financial metrics. Total debt service coverage ratio (DSCR) levels, inclusive of both senior and junior lien debt service, are forecasted to average around 2.2x in the medium term under a reasonably conservative traffic and revenue growth case scenario, which includes the anticipated issuance of roughly \$2.7 billion in additional senior lien parity debt through 2030. Approximately \$2.4 billion of this amount will be used to fund the authority's \$4.2 billion 5-year work plan (FY2026-FY2030). The majority of the work plan (70%) will be for system expansion projects, which are expected to be revenue additive to the system.

While we expect CFX's financial metrics to decline from current robust levels, metrics will remain strong given the continued traffic and revenue growth and the authority's proactive management in the implementation of its large work plan to deal with increasing demand.

Exhibit 1
Strong traffic and revenue performance driven by growing demand and toll rate increases



 $Sources: Moody's\ Ratings,\ Company\ filings\ and\ CDM\ Smith$ 

The authority has continued to perform well in regard to both traffic and revenue. The latter is impacted by continued strong traffic performance coupled with toll rate increases. Fiscal year ended June 2024 traffic and toll revenues are about 123% and 152% of 2019 levels, respectively, as per audited data. Unaudited data shows that YTD May 2025 traffic and revenue were 122% and 151% of 2019 levels, respectively. Of note, the board voted to set the fiscal 2024 toll rate increase at 1.5% instead of CPI, which is a deviation from its track record, however this was a one-off action and the 4.497% and 2.957% CPI-indexed toll

rate increase were implemented in fiscal 2025 and fiscal 2026 respectively, as per CFX's toll policy.

# **Credit strengths**

- » Strong traffic and revenue performance supported by population and economic growth in the service area
- » Increasingly diverse service area economy that is forecasted to continue to grow and generate additional traffic
- » Limited competition from non-tolled roads
- » Effective toll policy with rate increases linked to CPI with a floor of 1.5%

# **Credit challenges**

- » Continued pressure to move forward with system expansion projects given growing demand
- » Implementation of \$4.2 billion 5-year work plan will result in liquidity decline and require an estimated \$2.7 billion in additional debt through 2030

# Rating outlook

The stable outlook reflects our expectation that traffic and revenue will continue to grow given the expansion of the service area economy and the implementation of toll rate increases. It also incorporates our expectation that CFX will continue to implement its large work plan to deal with this increased demand in a prudent manner in order to still keep strong metrics.

# Factors that could lead to upgrade

- » Total DSCR levels, inclusive of both senior and junior lien debt service, above 3.0x on a sustained basis
- » Adjusted debt to operating revenue ratio below 4.0x, while maintaining at least 730 days cash on hand

# Factors that could lead to downgrade

- » Traffic and revenue growth consistently below projections
- » Total DSCR levels, inclusive of both senior and junior lien debt service, below 2.0x on a sustained basis
- » Greater capital needs that result in significantly higher than CFX's expected increase in leverage or decline in liquidity

# **Key indicators**

Exhibit 2
Central Florida Expressway Authority, FL

	2020	2021	2022	2023	2024
Total Transactions Annual Growth (%)	-8.9	2.7	18.1	-0.2	11.5
Debt Outstanding (\$'000)	3,294,050	3,287,242	3,165,474	3,078,683	2,985,110
Adjusted Debt to Operating Revenues (x)	7.12	6.56	5.22	4.82	4.18
Days Cash on Hand	1,464	2,021	1,435	1,431	1,051
Senior Lien Debt Service Coverage By Net Revenues (x)	2.0	1.9	2.5	2.7	3.1
Total Debt Service Coverage By Net Revenues (x)	1.9	1.9	2.3	2.6	2.9

Fiscal 2023 performance was negatively impacted by Hurricane Dorian in September and October 2022 Sources: Company filings and 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.moodys.com for the most updated credit rating action information and rating history.

#### **Profile**

The authority was established in 1963 and operates and maintains an integrated system of seven expressway toll roads spanning 125 miles of roadway in and around the City of Orlando. The CFX system also connects with the two other limited access roadways in the area, I-4 and Florida's Turnpike.

CFX is an independent special district established by the Florida Legislature. On June 20, 2014, the governor of Florida signed the bill to create CFX, which assumed the governance and control of the former Orlando-Orange County Expressway Authority, including its assets, personnel, contracts, obligations, liabilities, facilities and tangible and intangible property. CFX is responsible for the construction, maintenance and operation of toll roads in Seminole, Lake, Osceola, Orange and Brevard Counties, and may also acquire, construct and equip rapid transit, trams and fixed guideways within the rights-of-way of the expressway system. The CFX board is made up of ten members, consisting of: one member each appointed by the respective chairs of the county commissions of Lake, Orange, Osceola, Seminole and Brevard Counties; three citizens appointed by the Governor; the Mayor of Orange County; and the Mayor of the City of Orlando. The Florida Turnpike Enterprise Executive Director serves as a non-voting advisor.

# **Detailed credit considerations**

## Revenue Generating Base - Large and growing service area with little competition

The growing service territory will continue to support CFX's strong traffic and revenue performance. CFX operates an integrated system of seven expressway toll roads in the greater Orlando area. Other high-speed highways in the service area, such as I-4 and sections of the Florida Department of Transportation's turnpike system (FDOT Turnpike, Aa2 stable) complement, rather than compete, with the authority's network. Direct competition is limited to local roads which are generally congested during peak commuting times and have multiple traffic lights. The rail service from Brightline operating from Miami to Orlando started in September 2023 and there has been no major impact from it to date and we do not expect any to develop given the different areas of service.

According to Moody's Analytics, as of May 2025, Orlando-Kissimmee-Sanford's economy is slowing, and recession risks are rising. If travel spending wanes, tourism-dependent industries will cut jobs. Despite the near-term frictions, strong population growth and dynamic drivers will support a strong long-term outlook.

Historically, CFX has been impacted by natural disasters such as hurricanes, resulting in periods of suspended tolls. The most recent suspension occurred in October 2024 during Hurricane Milton when the governor suspended all CFX roadways to help with evacuations, this suspension lasted 12 days and operations losses were calculated to be \$22 million. The previous suspension had occurred in September 2022 and October 2022 during Hurricane Ian when the governor suspended all CFX roadways to help with evacuations, this suspension lasted 19 days and operations losses were calculated to be \$30 million. The governor also directed the suspension of CFX tolls for 5 days and 16 days in September 2019 during Hurricane Dorian and in September 2017 during Hurricane Irma. While the toll revenue losses could not be recovered from business interruption insurance, as it does not cover voluntary toll suspensions, CFX has a robust liquidity position that mitigated the revenue loss from the toll suspensions. Physical damage to its facilities is usually nonexistent or very minor and repairs are covered in the routine maintenance budget.

# Financial Operations and Performance - Continued strong traffic and revenue performance

Total DSCR levels, inclusive of both senior and junior lien debt service, are forecasted to decline and average around 2.2x in the medium term under a reasonably conservative traffic and revenue growth case scenario through fiscal 2030. The scenario includes the anticipated issuance of \$2.7 billion in additional parity senior lien debt through 2030 to fund the authority's adopted \$4.2 billion 5-year work plan.

The authority has continued to show strong traffic and revenue growth and as of year to date May 2025, transactions and revenue were about 0.30% and 5.18% higher than the previous year, respectively. We expect fiscal 2025 total DSCR to be about 2.8x, based on this traffic and revenue growth, the latter being also impacted by the 4.5% toll rate increase implemented on July 1, 2024.

Total DSCR was 2.94x in fiscal 2024, up from 2.56x in fiscal 2023. Fiscal 2023 performance was negatively impacted by Hurricane Ian related toll suspension. Fiscal 2024 performance also incorporated the 1.5% toll rate increase. On a one-off basis, the CFX Board decided to amend the toll policy for fiscal 2024 to forgo the 8.6% CPI-indexed increase and instead adjust tolls by the 1.5% floor. The decision was based on a variety of factors including fiscal 2023 toll revenues significantly exceeding budget. This was a deviation

to CFX's track record of implementing toll rate increases in accordance with the toll policy adopted in February 2017, which is credit negative. However, given strong operational and financial performance, the impact in metrics was limited. In fiscal year 2025 (July 1, 2024) and in fiscal year 2026 (July 1, 2025), toll rates were increased by the 4.497% CPI and 2.957% CPI as per the toll policy. Going forward, we expect the authority to continue to benefit from the toll policy adopted by the CFX board in February 2017. Per this policy, each year beginning in fiscal 2019, toll rates for electronic toll collection (ETC) customers will increase by the greater of CPI or 1.5% rounded to the penny, and the cash rate will be increased by a quarter when it gets to be within 10% of the ETC rate. Of note, CFX expects to be fully cashless by October 2025.

Both fiscal 2023 and fiscal 2024 financial performances were positively impacted by the state sponsored toll relief program. During the calendar year of 2023, all eligible frequent users of toll roads in the state of Florida benefitted from the <u>state sponsored toll relief program</u> (Toll Relief Program) which provided a 50% toll credit for each transponder user with more than 35 transactions a month. This program was renewed from April 2024 until March 2025. With the sunset of this state sponsored program, CFX reimplemented its E-PASS Volume Savings Program in April 2025, ceasing the benefit CFX's financial performance had from absence of discounts provided by the authority. CFX's E-PASS Volume Savings Program can result in a discount up to 25% per month for eligible frequent users. According to management, no customer issues have been reported since the sunset of the Toll Relief Program, which may be due to the reimplementation of the E-PASS Volume Savings Program.

## Liquidity

CFX has maintained a robust liquidity position, however we anticipate the authority will see a decline in days cash on hand (DCOH) due to the use of cash to fund capital projects. Even as it moves forward with the implementation of its work program, we expect the authority will maintain its liquidity around 700 DCOH on average over the projected period. In fiscal 2024, the authority had liquidity of roughly \$395 million of unrestricted and discretionary reserves, equivalent to 1,051 DCOH. We expect that CFX ended fiscal year 2025 at similar days cash on hand levels, based on unaudited numbers.

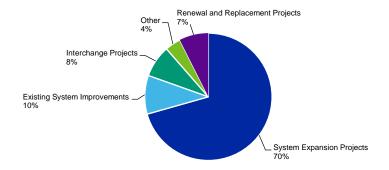
#### Debt and Other Liabilities - Future increase of debt to fund capital plan

Leverage measured by adjusted debt to operating revenue improved to 4.18x in fiscal 2024 from 4.82x in fiscal 2023, as operating revenue increased and no new debt was issued in the meantime. However, starting in fiscal 2025, leverage metrics will increase as CFX moves forward with its plan to issue debt to fund its capital work plan. The authority had approximately \$2.8 billion in senior lien debt outstanding, in addition to roughly \$211 million in Series 2012A and TIFIA loan junior lien debt outstanding as of June 2024. It currently has approximately \$2.7 billion in senior lien debt outstanding and \$202.9 million in TIFIA junior lien debt outstanding.

The current \$4.2 billion five-year capital work plan covers fiscal 2026 through 2030 and includes \$2.9 billion in expansion projects; \$410 million in existing system improvements; \$338 million for interchange projects and \$309 million for renewal and replacement projects. The authority plans to issue \$2.7 billion of additional senior lien bonds through 2030 to fund its capital work plan.

Exhibit 3

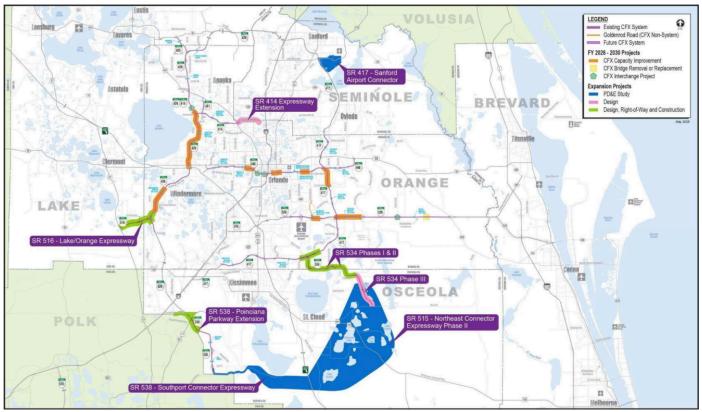
5-year work plan consists mainly of existing system expansion projects and improvements
FY2026 - FY2030



Source: Company filings

Among the projects from this 5-year work plan, the main one is the system expansion project SR 516 Lake Orange Expressway, connecting U.S. 27 to the SR 429 Western Beltway/Wekiva Parkway. The total project is expect to cost about \$776 million and construction started in April 2024 and is expected to be finalized by summer 2027. Other system expansion projects which are going to be partially constructed during the 5-year work plan include: SR 538 Poinciana Parkway Extension and CR532 Widening and SR 534 Phases I, II and III.

Exhibit 4 5-year Work Plan FY2026 - FY2030 Major Projects Map



Source: Company Filings

## Legal security

The senior lien revenue bonds are payable from and secured by a pledge of and lien on the system pledged revenues. Specific senior lien revenue bonds are also secured by and payable from monies, or a reserve credit facility, in the respective subaccount within the debt service reserve account, which has a required amount that is the lesser of maximum annual debt service or maximum amount permitted by federal tax law to be funded from bond proceeds without requiring yield restriction.

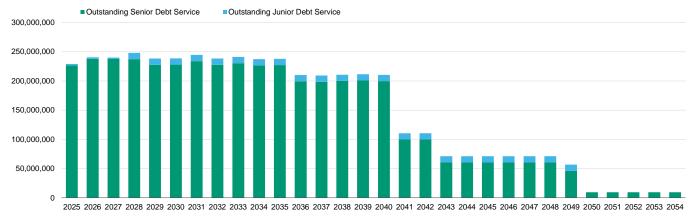
Both senior and junior lien debt have a rate covenant of 120% of annual average debt service by system wide net revenues. Systemwide net revenues of the preceding fiscal year, or 12 consecutive months out of the preceding 15 months must equal at least 120% of outstanding and proposed parity annual debt service. TIFIA requires at least 120% debt service coverage for the remaining life of the loan as well as no rating downgrade.

CFX currently has a board-adopted debt policy that is more conservative than required under the master senior and junior bond resolution. In order to issue senior lien debt, the authority must demonstrate that revenues will be sufficient to cover the existing and new debt service coverage by 1.45x versus 1.20x in the senior and junior resolution. The debt policy further states that for planning purposes, the authority maintains minimum debt service coverage of at least 1.60x on the existing and planned senior lien debt issues. For the junior lien, CFX has proposed a target debt service coverage 1.50x for planning purposes.

#### Debt structure

Of the existing debt outstanding, annual debt service remains relatively flat through 2040 then declines through final maturity in 2054. This debt service schedule does not include the \$2.7 billion additional debt planned to fund the authority's five-year capital work plan, however it shows that there is capacity to have this additional debt layered in.

Exhibit 5 **Current debt service profile** 



Source: Company filings

#### Debt-related derivatives

None.

### **Pensions and OPEB**

Authority employees participate in the State of Florida Retirement System (FRS), a public employee defined benefit pension plan. Pursuant to GASB 68, as of June 30, 2024, the authority reported a pension liability of \$13.34 million for its proportionate share of the state's net pension liability for FRS. Moody's calculates an adjusted net pension liability (ANPL) at \$25.34 million, which is small relative to the amount of debt outstanding and manageable.

We adjust the reported pension liabilities of entities that report under governmental accounting standards, to enhance comparability across rated issuers. Under governmental pension accounting, liabilities are discounted using an assumed rate of investment return on plan assets. Under our adjustments, we value liabilities using a market based discount rate for high quality taxable bonds, a proxy for the risk of pension benefits.

#### **ESG** considerations

Central Florida Expressway Authority, FL's ESG credit impact score is CIS-2

Exhibit 6

ESG credit impact score



Source: Moody's Ratings

Central Florida Expressway Authority, FL (CFX)'s ESG credit impact score of **CIS-2** indicates that ESG considerations are not material the rating. The score reflects exposure to environmental risks, however exposure to social and governance risks is limited.

Exhibit 7
ESG issuer profile scores



Source: Moody's Ratings

#### **Environmental**

CFX's **E-3** issuer profile score reflects its operations as a single asset with increasing exposure to physical climate risks like hurricanes. The increasing use of electric or hybrid vehicles still require the use of the roadways, limiting exposure to carbon transition risks impacts on traffic and revenue. While roadway materials are carbon intensive (i.e., concrete and asphalt), wide use of sustainable alternatives have yet to become widely and affordably available and there has yet to be a rise in political or social pressure to decarbonize construction materials to date.

## **Social**

CFX's **S-2** issuer profile score reflects limited exposure to social risks. Limited credit exposure to customer relations reflects a sound toll rate based on a toll policy adopted by the CFX board in February 2017. Per this policy, each year beginning in fiscal 2019, toll rates for electronic toll collection (ETC) customers will increase by the greater of CPI or 1.5% rounded to the penny, and the cash rate will be increased by a quarter when it gets to be within 10% of the ETC rate. Of note, as part of the fiscal 2024 budget process, the CFX Board decided to amend the toll policy for fiscal 2024 to forgo the 8.6% CPI increase and instead adjust tolls by the 1.5% floor. However, this was a one-off action, and the 4.497% and 2.957% CPI-indexed toll rate increase was implemented in fiscal 2025 and fiscal 2026, respectively, as per CFX's toll policy.

# Governance

CFX's **G-2** issuer profile score reflects limited exposure to governance risk given that the board structure is diversified and independent. The CFX board is made up of ten members, consisting of: one member each appointed by the respective chairs of the county commissions of Lake, Orange, Osceola, Seminole and Brevard Counties; three citizens appointed by the Governor; the Mayor of Orange County; and the Mayor of the City of Orlando. The Florida Turnpike Enterprise Executive Director serves as a non-voting advisor.

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 <a href="here">here</a> to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

# Methodology and scorecard

The scorecard indicated outcome is one notch higher than the Aa3 rating assigned to the senior lien bonds. The rating incorporates other factors such as narrowing metrics and construction risks related to the authority's large 5-year capital improvement plan.

The scorecard is a reference tool that can be used to approximate credit profiles for Publicly Managed Toll Roads in most cases. However, the scorecard is a summary that does not include every rating consideration. Please see the Publicly Managed Toll Roads and Parking Facilities Methodology published in May 2023 for more information about the limitations inherent to grid.

Exhibit 8
Rating factors
Central Florida Expressway Authority, FL

Factor	Subfactor	Score	Metric
1. Market Position	a) Asset Type	Aa	
	b) Competitive Position and Environment	А	
	c) Economic Strength and Diversity of Service Area	Aa	
2. Performance Trends	a) Annual Revenue	Aa	720.6
	b) Operating Track Record and Revenue Stability	Aaa	
	c) Ability and Willingness to Increase Toll Rates	Aa	
3. Financial Metrics	a) Debt Service Coverage Ratio	Aa	2.9x
	b) (Debt + ANPL) to Operating Revenue	А	4.2x
Preliminary Grid Indicated Outcome Before Notching		Aa3	
Notching Considerations		Notch	
	1 - Debt Service Reserve Fund level	0	
	2 - Open/Closed Flow of Funds	0	
	3 - Days Cash on Hand	1	1,051
	4 - Asset Ownership and Financing Structure	0	
	5 - Leverage Outlook	-0.5	
Scorecard Indicated Outcome:		Aa2	

Source: Moody's Ratings

© 2025 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

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

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

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

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

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

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

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

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

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA 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 and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs and NZAs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER

1451765

## **CLIENT SERVICES**

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454