

MOODY'S

INVESTORS SERVICE

CREDIT OPINION

21 April 2023



Contacts

Cintia Nazima +1.212.553.1631
AVP - Analyst
cintia.nazima@moody's.com

Tanish Gupta +1.212.553.9452
Associate Analyst
tanish.gupta@moody's.com

Earl Heffintrayer, +1.214.979.6860
CFA
Vice President - Senior Credit Officer
earl.heffintrayer@moody's.com

Kurt Krummenacker +1.212.553.7207
Associate Managing Director
kurt.krummenacker@moody's.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

Illinois State Toll Highway Authority

Update to credit analysis

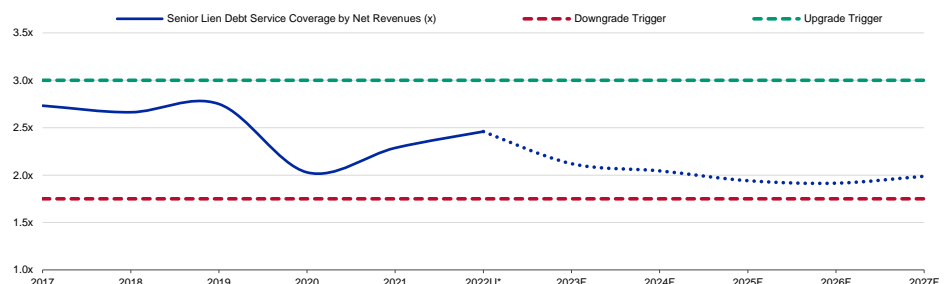
Summary

[Illinois State Toll Highway Authority's](#) (Aa3 stable, ISTHA or the authority) strong credit profile is based on the authority's very strong market position characterized by the essential nature of its tollway system serving one of the nation's largest population bases and most diverse economies. Strong traffic and revenue growth trends through toll increases and state-level fiscal stress demonstrate the inelastic demand for the tollway system roads and limited competition. Debt service coverage remains strong, and leverage will increase somewhat as a result of plans to issue an additional \$2.0 billion through 2025 (inclusive of the current Series 2023A bonds). Liquidity will decline if ISTHA's revenue matches projections and pay-go capital is spent in line with current plans, however we expect liquidity to remain above one year of days cash on hand in almost all the projected period. The authority does not rely on state funding and its credit profile acknowledges strong protections in the authorizing legislation, the master trust indenture, and the Illinois Constitution.

As with the broader toll road sector, the ISTHA revenues recovered to pre-pandemic levels, being, in the first two months of 2023, at 102% of the same period in 2019 and at 97% in 2022. Total traffic in 2022 was 94% of 2019. While passenger traffic was still 8.1% down from 2019 in 2022, commercial traffic has shown much more resiliency than passenger traffic, with 2022 commercial traffic up 5.8% from 2019. In the first two months of 2023, traffic was at 99% of the same period in 2019. Moody's net revenue debt service coverage remained strong at 2.29x in 2021, leverage was 5.95x adjusted debt to operating revenues at year end and liquidity was above 1,000 days cash on hand. Expected revenue growth will keep net revenue DSCR near 2.0x and leverage below 6.5x despite the significant bond issuance planned through 2025.

Exhibit 1

Net revenue DSCR will remain below historic levels following the pandemic, but remain close to 2.0x



*2022 figures are preliminary unaudited

Source: Moody's Investors Service, as adjusted

Credit strengths

- » Large integrated system of toll roads serves as an essential component of the Chicago area's transportation network and an important congestion reliever for commuters
- » Mature service area and a diverse user base comprising both commuters and interstate traffic has long, well-established history of steady growth
- » Strong actual and projected DSCRs expected to be maintained close to 2.0x despite the effects of the pandemic and the significant planned increase in debt through 2025
- » Inelastic demand through toll increases; a large commercial rate increase was implemented in three phases between 2015 and 2017, and starting in 2018 commercial rates increased annually based on inflation, yet commercial traffic continues to grow
- » Experienced management team has successfully implemented toll increases and adopted robust controls and processes for electronic toll collection and enforcement
- » Annual reinvestment in and improvement of facilities per inspection and recommendation of consulting engineer
- » Maintenance of strong liquidity despite annual funding of reinvestment in facilities

Credit challenges

- » Elevated leverage for its rating category due to recent issuances with significant additional debt issuance expected through 2025
- » Service area population has declined each of the last 6 years
- » Approved toll increases will result in more commercial traffic revenue concentration, which can be a more economically volatile portion of the user base; no indication of plans to increase passenger car toll rates
- » The authority's adjusted net pension liability (ANPL) is relatively high in relation to its outstanding debt and, since authority employees participate in the State Employees Retirement System (SERS), we expect the authority's ANPL to grow in tandem with Moody's expected growth in the [State of Illinois](#)' (A3 stable) pension liabilities, resulting in pension contributions that become a larger percentage of the authority's operating budget

Rating outlook

The stable outlook is based on the expectation that the authority will continue to exercise its rate-setting autonomy, that approved commercial toll increases will continue to be implemented as planned, and construction costs for the Move Illinois projects will be in line with estimates. The outlook is also based on the stable credit profile of the State of Illinois.

Factors that could lead to an upgrade

- » Traffic and revenues that significantly exceed current projection, with Moody's net revenue DSCR above 3.0x
- » Adjusted debt to operating revenues below 4.0x
- » Substantial improvement in the state's credit strength
- » Liquidity remaining above 730 days cash on hand

Factors that could lead to a downgrade

- » Substantial deterioration of the state's credit profile

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.

- » DSCRs consistently falling below 1.75x on Moody's net revenue basis
- » Adjusted debt to operating revenues above 7.0x
- » Liquidity below 365 days cash on hand

Key indicators

Exhibit 2

Illinois State Toll Highway Authority FY 2017 - FY 2021

	FY2017	FY2018	FY2019	FY2020	FY2021
Total Transactions ('000)	997,334	1,008,952	1,023,222	806,649	936,596
Total Transactions Annual Growth (%)	7.0	1.2	1.4	-21.2	16.1
Operating Revenue (\$000)	1,398,498	1,436,403	1,484,506	1,260,950	1,459,804
Debt Outstanding (\$000)	6,107,840	5,994,680	6,085,620	6,456,360	7,019,855
Senior Lien Debt Service Coverage by Net Revenues (x)	2.73	2.66	2.75	2.03	2.29
Adjusted Debt to Operating Revenues (x)	5.45	5.18	5.09	6.49	5.95
Days Cash on Hand	1,336	1,096	1,150	997	1,027

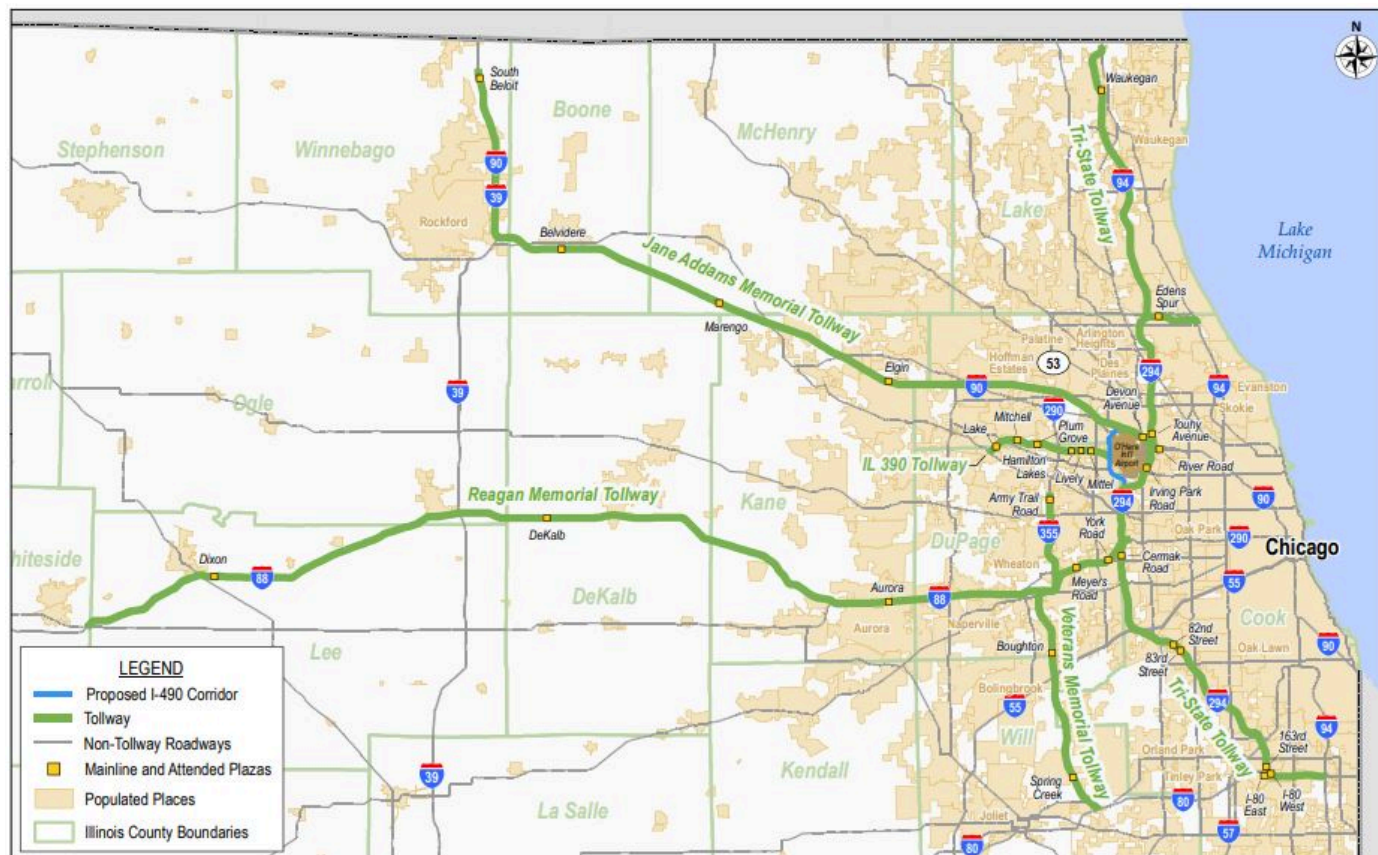
Source: Moody's Investors Service, as adjusted

Profile

ISTHA operates a tollway system that consists of approximately 294 miles of limited access highway in twelve counties in the northern part of Illinois and is an integral part of the expressway system in northern Illinois. The entire tollway system has been designated a part of the US Interstate Highway System, except for the 10 miles of Illinois Route 390. The system consists of five components: the newly widened and extended Illinois Route 390 (formerly the Elgin O'Hare Expressway) whose widened 6.5 mile segment opened for tolling in July 2016, and whose second 3.5 mile extension opened in November 2017. At completion the Elgin O'Hare Western Access Project will total 17 miles and provide Western access to O'Hare airport; the 76 mile Jane Addams Memorial Tollway, which constitutes a portion of US Interstate Highway 90; the 82 mile Tri-State Tollway constituting portions of US Interstate Highways 80, 94 and 294; the 30 mile Veterans Memorial Tollway (Interstate 355) which opened in December 1989 and was extended in 2007, and the 96 mile Ronald Reagan Memorial Tollway that constitutes a portion of US Interstate Highway 88.

Exhibit 3

ISTHA is an integral part of the expressway system in northern Illinois and covers the most densely populated area around Chicago



Source: ISTHA

Detailed credit considerations

Revenue Generating Base - Established system in one of the nation's largest economic centers with no planned competing facilities

ISTHA's large system and the economic strength of the service area provide it with a very strong revenue generating base. Though parts of the tollway system were first designed and constructed over 65 years ago, the authority was established in 1968 under the Toll Highway Act. The tollway system is now a multi-asset system of 294 centerline miles of interstate (except for the 10 centerline miles of IL Route 390) tollways throughout 12 counties in the greater Metropolitan Chicago Area. [Cook County](#) (A2 positive), [DuPage County](#) (Aaa) and [Lake County](#) (Aaa) make up the core tollway counties, from which the majority of toll revenue and transactions are generated. Cook County includes the [City of Chicago](#) (Baa3 stable). These counties are the most mature of the service area, with one of the largest population bases and diverse economies in the nation. The next "collar" of counties served by the tollway system includes [Will County](#) (Aa1 stable), [Kane County](#) (NR), [McHenry County](#) (Aaa) and [DeKalb County](#) (Aa1). These are the suburban counties which grew as the core counties became more constrained.

Chicagoland overall remains a major center for business, distribution, transportation and finance with a huge talent pool and a strong roster of well-regarded educational institutions. That said, Moody's Analytics sees the region lagging its peers in economic growth in the long term due to poor population trends and weak public finances. Illinois' second-largest city, [Rockford](#) (A3), is connected to the tollway via the Jane Addams Memorial Tollway through [Winnebago County](#) (Aa3) and [Boone County](#) (Aa3). Rockford's economy never fully recovered from the 2008 recession and continues to struggle from the pandemic-induced downturn. [Lee County](#) (Aa2) and [Ogle County](#) (NR) are on the western end of the Reagan Memorial Tollway and are largely rural.

Competition to ISTHA's facilities will remain stable. There are no limited access freeways or other limited access highways under construction, and no Federal, state or other agency is now planning the construction, improvement or acquisition of any highway or other facility that may be materially competitive with the tollway system.

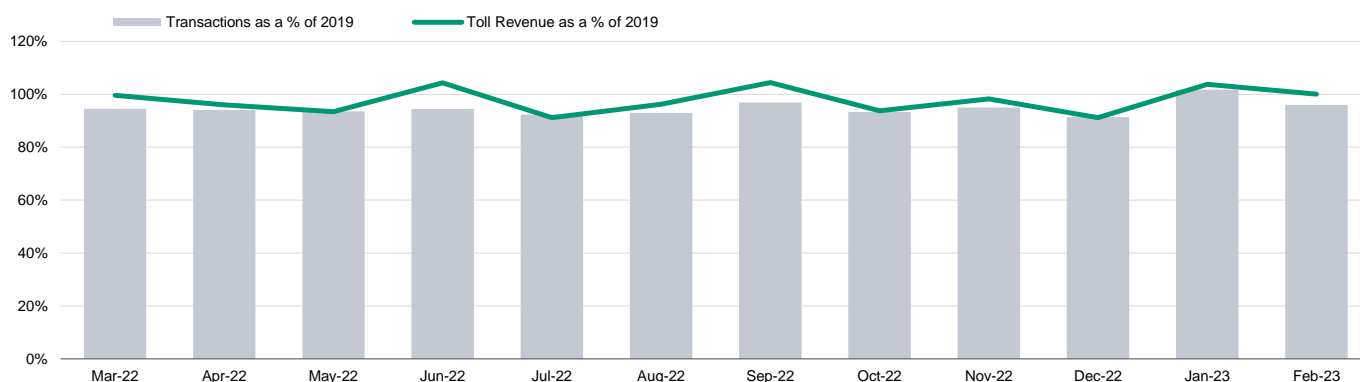
Operations and Financial Position - Recovery of traffic and revenue keeps DSCRs strong

ISTHA's recovery from the pandemic decline was similar to the broader toll road sector and demonstrates the resilient market position. Toll revenues in fiscal 2022 were up 3.4% year on year and 97% of fiscal 2019 (pre-pandemic) levels. Traffic in fiscal 2022 was up 2.2% year on year and 94% of fiscal 2019 (pre-pandemic) levels. For the first two months of 2023, revenues recovered to pre-pandemic levels, being up 2% over the same months in 2019 and traffic has almost recovered as well, being only 1% down over the same months in 2019. Commercial traffic has been much more resilient than passenger traffic and was 5% higher than in the first two months of 2019.

Exhibit 4

ISTHA monthly traffic and revenue mostly back to pre-pandemic levels

Values as a % of the corresponding month of 2019



Source: ISTHA

Moody's net revenue coverage of debt service was strong at 2.29x in 2021. DSCR will remain strong if the authority's revenue forecast is met. The March 2023 traffic and revenue study update shows a full recovery to pre-pandemic levels of toll revenues by 2023. However, traffic volume will not surpass 2019 levels until 2026. Faster revenue recovery is mostly because of the toll rate increases implemented on commercial vehicles.

Beginning January 1, 2023, the annual commercial vehicle toll rate adjustment methodology was revised to be based on the annualized percentage change in the CPI-U over a 36-month period rather than a 12-month period. With that, the annual adjustment effective January 1, 2023 was 3.65% and future adjustments are expected to continue at higher than recent historical levels for longer. This is in line with some other cases we've seen in the sector, with toll roads changing toll rate increases approach given high inflationary environment.

Liquidity

The authority's unrestricted cash and investments for fiscal 2021 was still robust at 1,027 days cash on hand, about 10% lower than the average over the previous five years. While balances are forecast to be drawn down over time to fund the CIP, we expect liquidity to remain above one year of days cash on hand in almost all the projected period.

Debt and Other Liabilities- High leverage compared to similarly positioned peers but reduced potential for increased leverage given state of capital plan

Capital Improvement Plan

ISTHA's progress through the Move Illinois capital program lessens financial risk. ISTHA completed nearly 70% of the total \$14.8 billion plan complete as of April 2023. ISTHA expects \$6.3 billion of this plan to be financed by revenue bonds and the remainder by pay-as-you-go revenues. In addition to the \$4.3 billion of previous bond issuance and the \$500 million Series 2023A bonds, ISTHA projects approximately \$1.5 billion additional revenue bonds to be issued for the Move Illinois Program through 2025. ISTHA has effectively

managed both construction costs and schedules to date, but we think shocks from the inflationary environment could still somewhat pressure the last portions of the plan.

The total value of the Move Illinois Program increased from \$14.1 billion to \$14.8 billion given higher costs of the Elgin-O'Hare Western Access project due to design changes and cost pressures. Of the \$14.8 billion total capital spend, \$10 billion is focused on improvements to maintain, with some portions of widening, the existing tollway system. The remaining \$4.8 billion is directed to tollway system expansion and should result in modest increases in system traffic and revenue. ISTHA expects completion of the Move Illinois Program in 2027.

Legal security

The bonds are secured by the net revenues of the toll highway system. The authority has by statute the right to set and collect tolls. Net revenues must be at least equal to 1.30x aggregate annual debt service on a trust indenture basis. The additional bonds test is also 1.30x. The debt service reserve requirement is equal to maximum aggregate annual debt service and is cash-funded save a \$100 million surety provided by [Berkshire Hathaway Assurance Corporation](#) (Aa1 stable IFSR).

Debt structure

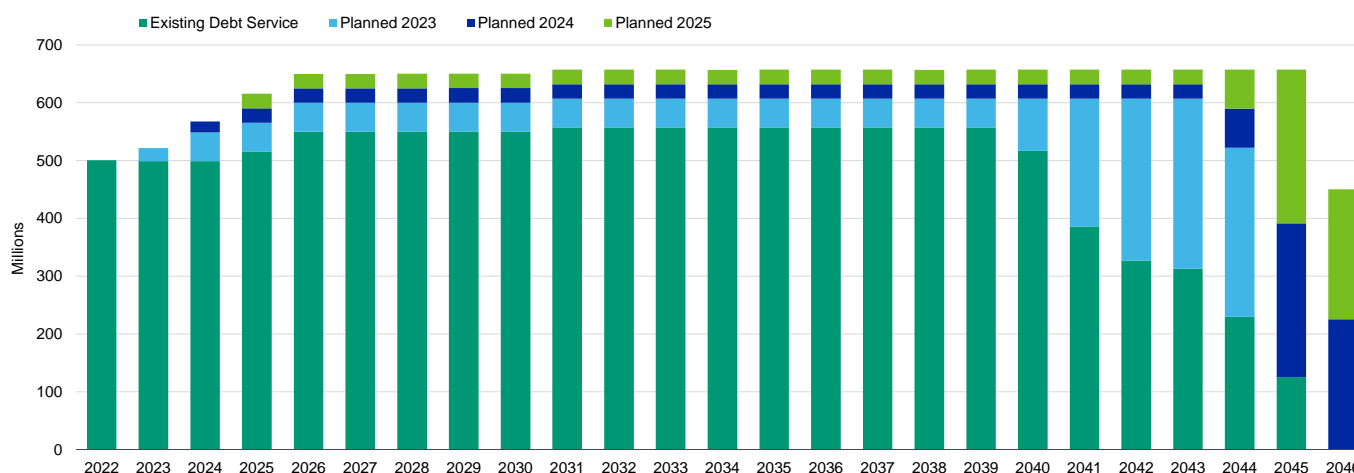
ISTHA had \$7.02 billion outstanding at the end of 2021. All debt is fixed-rate and fully amortizing. Debt service was approximately \$468 million in 2021, rising to MADS of \$657 million in 2031 and staying at that level through 2045 after factoring in planned issuance to fund the capital plan. A key credit strength of the authority is the limitation around issuance of debt to maturities within 25 years, leading to faster amortization profile than its peers.

Leverage at 5.95x adjusted debt to operating revenues at the end of 2021 is high for similarly rated toll roads. The expected debt issuance and toll revenue growth should keep leverage above 6.0x through 2025, but leverage will then quickly decline with high amortization and modest revenue growth.

Exhibit 5

ISTHA Debt Service Profile

Including \$2 billion (inclusive of Series 2023A) of planned new money issuance through 2025 for capital plan



Source: ISTHA

Debt-related derivatives

None.

Pensions and OPEB

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 the plan assets. Under our adjustment, we value liabilities using the [FTSE Pension Liability and Liability Index](#) (FTSE PLI), a high

investment-grade long-term taxable bond index, as a discount rate to compute the present value of accrued benefits and a proxy for the risk of pension benefits.

Authority employees participate in the State Employees' Retirement System (SERS), a public employee defined-benefit pension plan. Pursuant to GASB 68, as of fiscal 2021, the authority reported a liability of \$854.5 million for its proportionate share of the state's net pension liability for SERS. Moody's calculates an adjusted net pension liability (ANPL) at \$1.7 billion based on our lower discount rate assumption. This amount is relatively high (24%) in relation to ISTHA's in outstanding debt. While currently manageable, we expect the authority's annual pension obligations to continue to grow in tandem with the state's growing liabilities and become a larger percentage of the operating budget. This could exert negative pressure on future net revenues available for both capital projects and debt service.

ESG considerations

Illinois State Toll Highway Authority's ESG Credit Impact Score is Neutral-to-Low CIS-2

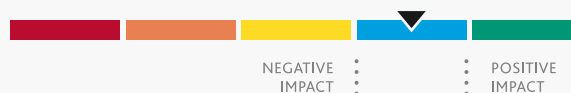
Exhibit 6

ESG Credit Impact Score

CIS-2

Neutral-to-Low

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.



Source: Moody's Investors Service

Illinois State Toll Highway Authority's (ISTHA) ESG credit impact score of **CIS-2** indicates that ESG considerations have a neutral-to-low impact on the rating. The score reflects ISTHA's neutral-to-low risks related to environmental, social, and governance risks.

Exhibit 7

ESG Issuer Profile Scores

ENVIRONMENTAL

E-2

Neutral-to-Low



SOCIAL

S-2

Neutral-to-Low



GOVERNANCE

G-2

Neutral-to-Low



Source: Moody's Investors Service

Environmental

ISTHA's credit exposure to environmental risk (**E-2** issuer profile score) reflects neutral-to-low as it relates to physical climate risks, water management, waste and pollution, and natural capital risks that are heightened only during large scale construction projects. 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

ISTHA's credit exposure to social risks is neutral-to-low (**S-2** issuer profile score) as it relates to demographics and societal trends, health and safety, human capital, and responsible production. Neutral-to-low credit exposure to customer relations reflects affordable toll rates and an overall sound toll rate regime to maintain satisfactory financial metrics over the long term.

Governance

ISTHA's credit exposure to governance risk is neutral-to-low (**G-2** issuer profile score) as it relates to financial strategy and risk management, management credibility and track record, and organizational structure. Credit exposure to board structure risks is moderately negative given reflecting concentration of control. The authority is governed by an 11-member Board of Directors that includes the Governor of Illinois and the Secretary of the Illinois Department of Transportation, ex officio. Nine directors are appointed by the governor, with the advice and consent of the Illinois Senate, from the state at large with a goal of maximizing representation from the areas served by the tollway system. These nine directors are appointed for a term of four years, or in the case of an appointment to fill a vacancy, the unexpired term. No more than five directors may be from the same political party. Of the directors appointed by the governor, one is appointed as Chairman. ISHTA's exposure to compliance and reporting risk is moderately negative because the authority typically issues audited financial statements in July or later, seven or more months after the fiscal year end.

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.

Rating methodology and scorecard factors

The grid is a reference tool that can be used to approximate credit profiles in the toll road sector in most cases. However, the grid is a summary that does not include every rating consideration. Please see our [Publicly Managed Toll Roads and Parking Facilities Rating Methodology](#) for information about the limitations inherent to grids.

The Aa1 scorecard-indicated outcome is two notches above the Aa3 reference rating. The differential incorporates risks associated with fiscal pressures at the state level such as sizable unfunded OPEB liability not incorporated in the scorecard.

Exhibit 8

Publicly Managed Toll Roads and Parking Facilities Illinois State Toll Highway Authority - FY 2021

Factor	Subfactor	Score	Metric
1. Market Position	a) Asset Type	Aa	
	b) Competitive Position and Environment	Aa	
	c) Economic Strength and Diversity of Service Area	Aaa	
2. Performance Trends	a) Annual Revenue	Aaa	\$1.46b
	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	2.29x
	b) (Debt + ANPL) to Operating Revenue	A	5.95x
Notching Considerations		Notch	
	1 - Debt Service Reserve Fund level	0.0	
	2 - Open/Closed Flow of Funds	0.0	
	3 - Days Cash on Hand	1.0	
	4 - Asset Ownership and Financing Structure	0.0	
	5 - Leverage Outlook	0.0	
Scorecard Indicated Outcome:		Aa1	

Source: Moody's Investors Service, as adjusted

© 2023 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

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

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

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

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

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any 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 fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

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

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

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

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

REPORT NUMBER

1363666

CLIENT SERVICES

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