Illinois State Toll Highway Authority
Update to Credit Analysis

Summary
The credit profile of the Illinois State Toll Highway Authority (ISTHA, A1 Stable) is based on its very strong market position, characterized by the essential nature of its tollway system serving one of the largest population bases and diverse economies in the nation. Strong traffic and revenue trends through toll increases and state-level fiscal stress demonstrate the inelastic demand for the tollway system roads and limited impact of competition. The authority does not rely on funding from the State of Illinois (Baa3 Stable) and its rating acknowledges strong protections in the authorizing legislation, the master trust indenture, and the Illinois Constitution. However, in the event of serious fiscal distress of the state, risk remains that the authority could be negatively affected by emergency fiscal actions taken by the state in such an unprecedented scenario.

FY 2018 saw both record transactions (1.0 billion) and toll revenue ($1.3 billion). Toll revenues drive operating revenues, comprising approximately 98% of total, with the remaining operating revenues coming from toll evasion recovery, investment income and concessions. FY 2018 transactions grew 11% over the prior year, overwhelmingly driven by commercial traffic. Lower passenger traffic was linked to major construction projects, where commercial vehicles on long-distance trips diverted to other system routes while passenger cars went to local, non-system alternatives. FY 2018 revenues were up 2.4%, reflecting both the commercial traffic growth and the first year of indexed toll adjustments (1.84%). As a result, debt service coverage remains strong at 2.66x on a Moody’s net revenue basis in FY 2018. The increase in toll revenues combined with a quickly amortizing debt profile has kept leverage manageable at 5.18x adjusted debt to operating revenue. Debt service coverage, leverage and liquidity is expected to stay in the same range or improve despite plans to issue an additional $2.4 billion through 2024.

Exhibit 1
Positive Traffic and Toll Revenue Performance Supports Strong DSCRs and Leverage Reduction FY 2014 - FY 2018

Source: ISTHA and Moody's Investors Service
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 despite significant planned increase in debt through 2024

» Inelastic demand through recent large 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

» Significant amount of planned additional debt to fund the $14.2 billion Move Illinois capital improvement program (CIP) coupled with construction and execution risk

» Service area economy recovered relatively slowly from the last recession and population growth is low

» Approved toll increases will result in more commercial traffic revenue concentration, which can be a more economically volatile portion of the user base; no increases for passenger car currently contemplated

» Exposure to variable rate debt and swaps, though this was significantly reduced by the refunding which closed in January of this year and is being proportionally reduced as additional fixed rate debt is added to fund the Move Illinois program and the authority is authorized to reduce exposure further depending on market conditions

» Potential exposure to increasing contributions for state pension funding costs and possible pressure due to state’s weak credit profile

» The authority’s adjusted net pension liability is relatively high in relation to its outstanding debt and expected to grow in tandem with the state’s growing pension liabilities, to become a larger percentage of the 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 projections

» DSCRs above the authority’s base case forecast and consistently over 2.0x on a Moody’s net revenue basis

» Capital projects are delivered on schedule and within budget

» Reduced exposure to variable rate debt and swaps

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.
Upgrade of the state credit profile

Factors that could lead to a downgrade

- Traffic and revenues fall short of current projections
- DSCRs consistently falling below 1.5x on a Moody’s net revenue basis
- Issuance of additional debt to fund other projects without offsetting toll rate increases or revenue growth, or that results in lower DSCRs or liquidity
- Adjusted debt to operating revenues above 7.0x
- Liquidity below 180 days cash on hand
- Deterioration of the state credit profile
- Attempts by the state to divert ISTHA funds to non-authority purposes

Key indicators

<table>
<thead>
<tr>
<th>Exhibit 2</th>
<th>Illinois State Toll Highway Authority</th>
<th>FY2014 - FY2018</th>
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<tbody>
<tr>
<td></td>
<td>FY 2014</td>
<td>FY 2015</td>
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<tr>
<td>Total Transactions ('000)</td>
<td>838,279</td>
<td>881,615</td>
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<td>Total Transactions Annual Growth (%)</td>
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<td>5.2</td>
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<td>Percentage of Passenger Transactions (%)</td>
<td>87.9</td>
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<tr>
<td>Percentage of Commercial Transactions (%)</td>
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<td>11.8</td>
</tr>
<tr>
<td>Percentage of Passenger Revenue (%)</td>
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<tr>
<td>Percentage of Commercial Revenue (%)</td>
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<td>Operating Revenue ($'000)</td>
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<td>Debt Outstanding ($'000)</td>
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<td>Adjusted Net Pension Liability ($000)</td>
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<tr>
<td>Adjusted Debt to Operating Revenues (x)</td>
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<td>Days Cash on Hand</td>
<td>1,042</td>
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<td>Senior Lien Debt Service Coverage By Net Revenues (x)</td>
<td>2.41</td>
<td>2.48</td>
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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. Approximately 11.9% of traffic in FY 2018 is commercial but this class of vehicles accounted for over 46.4% of revenues. The percentage of commercial revenues is forecasted to surpass passenger vehicle revenues by 2028 due to regular toll rate increases for this class. The system consists of five components: the new Illinois Route 390 (formerly the Elgin O’Hare Expressway) whose first 6.5 mile segment opened in July 2016, and second 3.5 mile segment 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.
Illinois State Toll Highway System Map

Detailed credit considerations

Revenue Generating Base

Though parts of the tollway system were first designed and constructed 60 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 tollways throughout 12 counties in the greater Metropolitan Chicago Area.

Cook County (A2 STA), Du Page County (Aaa STA) and Lake County (Aaa STA) make up the core tollway counties, from which the majority of toll revenue and transactions are generated. Cook County includes the City of Chicago (Ba1 STA). 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 STA), Kane County (Aa1 NOO), McHenry County (Aaa NOO) and DeKalb County (Aa1 STA). 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, the area stays a step behind its peers and the nation because of its poor population trends and persistent fiscal pressures at the state and local level.

Illinois' second-largest city, Rockford (A1 NEG), is connected to the tollway via the Jane Addams Memorial Tollway though Winnebago County (Aa2 NOO) and Boone County (Aa3 NOO). The Rockford MSA's economy is exposed to the auto industry, and its top employer Fiat Chrysler announced plans to lay off about 1,400 workers in 2019 as it cuts one production line from its Belvidere plant amid softening global demand, especially in China. Layoffs will also extend to the region's large contingent of auto part suppliers. The population has declined for eight straight years, with the biggest declines occurring among the prime working-age population. Rockford's depleted labor force will make it tough for it to attract new investment and expand high-value-added industries.

Lee County (Aa2 NOO) and Ogle County (NR) are on the western end of the Reagan Memorial Tollway and are largely rural.
Operations and Financial Performance
After a decade of transactions hovering around 780,000 as the service area matured, growth has been consistent starting in 2010 and the authority has had only one down year as new capacity was added to the tollway system in that period. The one down year was 2012, and was linked to a passenger car toll increase. At the same time, revenue has shown steady growth with periodic jumps due to toll rate increases: the aforementioned passenger toll rate increase in 2012, a three-phase commercial vehicle toll rate increase between 2015 and 2017, and the start of inflation-based commercial vehicle toll rate increases in 2018. The overall growth in transactions and revenue is despite the fiscal instability causing out-migration in the service area, demonstrating the inelastic demand for the tollway system roads and limited impacts of competition.

FY 2018 saw both record transactions (1.0 billion) and toll revenue ($1.3 billion). Toll revenues drive operating revenues, comprising approximately 98% of total, with the remaining operating revenues coming from concessions. FY 2018 transactions grew 1.2% over the prior year, overwhelming driven by commercial traffic. Lower passenger traffic was linked to major construction projects, where commercial vehicles on long-distance trips diverted to other system routes while passenger cars went to local, non-system alternatives. FY 2018 revenues were up 2.4%, reflecting both the commercial traffic growth and the first year of indexed toll adjustments (1.84%). As a result, debt service coverage remains strong at 2.66x on a Moody’s net revenue basis in FY 2018. The increase in toll revenues combined with a quickly amortizing debt profile has kept leverage manageable at 5.18x adjusted debt to operating revenue.
Authority toll transaction and revenue forecasts do not anticipate any changes to the system’s rate structure, with no increases factored in for passenger vehicles and indexed increases for commercial traffic. Commercial rates were increased by 2.25% in 2019, based on CPI; projections include a planned 2.07% increase in 2020, and 2% annual increases rounded to the nearest $0.05 from 2021 onwards. Projected toll transactions are expected to grow by an average of 2.7% annually from FY 2019 through 2024, impacted by the construction cycle of various projects part of the Move Illinois capital improvement plan. The share of toll revenues are expected to become more heavily weighted to commercial vehicles over time due to annual adjustments while passenger rates remain static. Total toll revenues are expected to grow annually by an average 4.3% from FY 2019 through 2024 and debt service coverage on a Moody’s net revenue basis should continue to improve over the current 2.66x despite the issuance of an additional $2.4 billion through FY 2024. Toll revenue growth plus a fast-amortizing debt profile results in stable-to-decreased leverage despite additional debt issuance through the period, keeping in range of the current 5.18x adjusted debt to operating revenues.

LIQUIDITY
The authority's unrestricted cash and investments for 2018 was strong at 1,096 days cash on hand, having stayed in the same range as the previous five years. While balances are forecasted to be drawn down over time to fund the CIP, they are expected to remain above one year of days cash on hand. Moody’s considers the authority's strong liquidity as a mitigant to the relatively large (albeit declining) exposure to variable rate debt and derivatives. A significant drop in liquidity below forecasted levels could exert downward pressure on the rating.

Debt and Other Liabilities
In August 2011, the authority approved a fifteen-year $12 billion capital improvement plan (CIP) known as "Move Illinois" which established a guide for infrastructure and other capital investments to be made through 2026. The approval of the CIP led to the toll rate increases beginning in 2012. The authority upsized the plan from $12.1 billion to $14.3 billion in 2017, with the increased spending planned for the central portion of the Tri-State Tollway. Of the $14 billion total capital spend, approximately $10 billion is focused on improvements on the existing tollway system. The remaining $4 billion is directed to tollway system expansion.

The authority has issued $3.1 billion in bonds to fund the Move Illinois capital plan, with an additional $2.4 billion planned through 2024. The remaining funding will be from pay-go revenues.

EXHIBIT 6
Illinois State Toll Highway Authority Move Illinois Capital Spend
FY2012 - FY2018, with projections through 2026

Source: ISTHA

DEBT STRUCTURE
The bonds are secured by the net revenues of the authority. The authority has by statute the exclusive and autonomous right to set and collect tolls. The rate covenant and additional bonds test for the authority's senior bonds are satisfactory relative to toll highways rated Aa3. 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).
ISTHA had $5.995 billion in outstanding debt at the end of FY 2018. Overall debt structure escalates gradually through 2027, then becomes more level before a steep decline beginning in 2040. The bonds have a relatively short maturity profile, given the maximum 25 year maturity permitted by state statute. The authority has $721 million in outstanding variable debt and $5.2 billion in outstanding fixed rate debt. Except for Series 2008 A-1b, which is a direct purchase for a term ending February 2020, all of the authority’s variable rate debt is supported by external liquidity with earliest expiration in January 2020.


**DEBT-RELATED DERIVATIVES**

The authority has interest rate swap agreements outstanding under which it pays a fixed rate and receives a floating rate on a notional amount of approximately $722 million. The swaps hedge all of the authority’s outstanding variable rate debt. The authority is not required to post collateral, and termination risk is remote as it would require a downgrade of the authority or the counterparties below Baa1. As of September 30, 2019 the authority’s swaps had a negative mark-to-market of $151.9 million. The authority is also authorized to refund its outstanding 2007A Bonds and 2008A Bonds, and to terminate any associated swap agreements. Such authorization is scheduled to expire December 31, 2020.
PENSIONS AND OPEB
Moody's adjusts 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 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 December 31, 2018, the authority reported a liability of $882.5 million for its proportionate share of the state's net pension liability for SERS. Moody's calculates an adjusted net pension liability (ANPL) at $1.446 billion based on our lower discount rate assumption. This amount is relatively high (24%) in relation to ISTHA's $5.994 billion 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.

Management and Governance
The authority was created under the Toll Highway Act of 1968 as an instrumentality and administrative agency of the State of Illinois to provide for the construction, operation, regulation and maintenance of a system of toll highways within the State. Under the act, ISHTA assumed all the obligations, powers, duties, functions and assets of its predecessor agency, the Illinois State Toll Highway Commission. ISHTA is authorized to issue revenue bonds for the purposes, among others, of financing expansions of the Tollway System and reconstruction of and improvements to the Tollway System. The authority is empowered to enter into contracts; to acquire, own, use, hire, lease, operate and dispose of personal and real property, including rights-of-way, franchises and easements; to establish and amend resolutions, by-laws, rules, regulations and to fix and revise tolls; to acquire, construct, relocate, operate, regulate and maintain the Tollway System; to exercise the power of eminent domain; and to contract for services and supplies, including services and supplies for the various patron service areas on the Tollway System.

Under its authorizing legislation the authority has the exclusive right to fix, adjust, revise and collect tolls for the use of the tollway system. The authority may increase tolls by vote of a majority of its board, after conducting a public hearing in each county in which the proposed increase is to take place. No other body has the authority to limit or restrict such rates and charges. The most recent toll adjustments on passenger cars was approved by the authority board as part of the authorization of its capital plan in 2012, and rates were increased by approximately 87%. Commercial vehicles were last adjusted starting in 2015 over the course of three years, totaling approximately 60%, then linking to the Consumer Price Index for an annual adjustment starting in 2018. The authority also discounts commercial vehicles during certain hours and for using I-PASS.

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 by the Governor as Chairman of the Authority.

The authority has a three-pronged legal framework which provides separation from direct control by the State of Illinois. First, the Toll Highway Act of 1968 is ISTHA's authorizing legislation, states ISTHA monies can only be spent on toll highway O&M, renewal and replacement, system improvement and debt service for related obligations. Monies in excess of the above expenditures can only spent on tollway purposes and dispersed only upon the order of the authority. Second, the authority's Master Indenture of 1999 states the flow of funds is closed, and monies can only be used for purposes allowed in the Toll Highway Act. Finally, the 2016 Transportation Lockbox Amendment to Illinois State Constitution precludes transportation funds from being used for non-transportation uses. Beyond the legal framework ring-fencing the finances of the authority, the ISHTA board has full authority over operations. The authority does not rely on the state for funding, and approximately 98% of operating revenues are from tolling. There are no intergovernmental transfers from the state save periodic reimbursements between ISHTA and IDOT for construction project one body completed for the other body's assets.
That said, in the event of serious fiscal distress and potential default by the state on its own bonds, risk remains that the authority could be negatively affected by emergency fiscal actions taken by the state in such an unprecedented scenario. States have broad powers and under extreme fiscal pressure could be expected to take unusual fiscal steps to avoid disruption of core services, such as maintaining public health and safety. The authority is a component unit of the state, with its governing board appointed by the Governor, funds held by the state Treasurer and whose financial statements are reviewed by the state auditor general; thus, the credit profile of ISTHA cannot be fully decoupled from that of the state. Should the state rating continue to decline, the impact to ISTHA will further weigh on the credit. Given the strong legal framework, attempts by the state to divert revenues might not stand up in court, and Moody’s would expect high recoveries in this unlikely eventuality, should bondholder payments be delayed.

**Rating methodology and scorecard factors**

The principal methodology used in these ratings was Publicly Managed Toll Roads and Parking Facilities published in March 2019. Please see the Rating Methodologies page on [www.moodys.com](http://www.moodys.com) for a copy of this methodology. The Aa1 scorecard-indicated outcome is three notches above the A1 reference rating. The differential incorporates risks associated with fiscal pressures at the state level.

### Exhibit 9

**Publicly Managed Toll Roads and Parking Facilities**  
Illinois State Toll Highway Authority FY 2018

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<th>Factor</th>
<th>Subfactor</th>
<th>Score</th>
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<tr>
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<td>b) Competitive Position and Environment</td>
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<td></td>
<td>c) Economic Strength and Diversity of Service Area</td>
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<td>2. Performance Trends</td>
<td>a) Annual Revenue</td>
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<tr>
<td></td>
<td>b) Operating Track Record and Revenue Stability</td>
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<tr>
<td></td>
<td>c) Ability and Willingness to Increase Toll Rates</td>
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<tr>
<td>3. Financial Metrics</td>
<td>a) Debt Service Coverage Ratio</td>
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<td></td>
<td>b) (Debt + ANPL) to Operating Revenue</td>
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**Notching Considerations**

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**Scorecard Indicated Outcome:** Aa1

*Source: Moody’s Investors Service, as adjusted*
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