Illinois State Toll Highway Authority

Update to credit analysis

Summary

The Illinois State Toll Highway Authority’s (ISTHA, Aa3 stable) credit profile reflects a history of steady traffic and revenue growth supported by toll increases implemented as planned to support the debt associated with the $14.3 billion Move Illinois capital program and its successful track record of delivering multiple, complex capital projects on schedule and budget. The rating also reflects rapid 25 year debt amortization as required by state statute, historical and forecasted debt service coverage ratios (DSCRs) above two times, including all additional $2.9 billion planned debt to complete the Move Illinois program, and maintenance of strong liquidity levels. These strengths are tempered by on-going cost and execution risks for the capital program, including potential cost escalation due to increasing materials or labor costs, and relatively high, though moderating exposure to variable rate debt and swaps. The authority is planning to reduce its swap exposure by approximately one-third with proceeds of the 2018 Series issue.

Credit strengths

» Large integrated system of toll roads serves as an essential component of Chicago area’s transportation network and an important congestion reliever for commuters

» Strong actual and projected DSCR over two times and satisfactory liquidity levels are expected to be maintained despite significant planned increase in debt through 2025
» Inelastic demand through recent large toll increases. Several large commercial rate increases have been implemented since 2015 and starting in 2018 are being annually increased 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

» Improving economic conditions in the large service area and a diverse user base comprising both commuters and interstate traffic has long, well-established history of steady growth

» 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

» Closed flow of funds in the bond indenture and by statute

Credit challenges

» Significant amount of planned additional debt of $2.9 billion to fund the $14.3 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

» Exposure to variable rate debt and swaps, though this is being proportionally reduced as additional fixed rate debt is added to fund the Move Illinois program

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

Rating outlook
The stable outlook is based on Moody's expectation that the authority will continue to exercise its rate-setting autonomy and generate revenues sufficient to maintain DSCRs at or above two times, including all of the planned debt to fund the Move Illinois program, and also to maintain strong liquidity levels, particularly given high though reduced exposure to variable rate debt and derivatives. The outlook is also based on the assumption that approved commercial toll increases will continue to be implemented as planned and that the authority will maintain its independence from the state despite the state's current fiscal pressures. The stable outlook is also based on our expectation that construction costs for the Move Illinois projects will be in line with estimates.

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 two times

» Capital projects are delivered on schedule and within budget

» Reduced exposure to variable rate debt and swaps

Factors that could lead to a downgrade

» Traffic and revenues fall short of current projections and DSCRs fall below forecasted levels consistently below two times

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Issuance of additional debt to fund other projects without offsetting toll rate increases or revenue growth, or that results in lower DSCRs or liquidity

Debt to operating revenues above six times

Liquidity below one year of days cash on hand

Key indicators

Exhibit 2
Illinois State Toll Highway Authority

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<tr>
<th>Illinois State Toll Highway Authority</th>
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<th>2015</th>
<th>2016</th>
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<td>Total Transactions (’000)</td>
<td>816,042.0</td>
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<td>881,615.0</td>
<td>931,891.0</td>
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<td>Total Transactions Annual Growth (%)</td>
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<td>2.7</td>
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<td>5-Year Traffic CAGR (%)</td>
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<td>1.6%</td>
<td>1.5%</td>
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<td>Debt Outstanding ($’000)</td>
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<td>Debt to Operating Revenues (x)</td>
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<td>4.7</td>
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<td>Days Cash on Hand (’000)</td>
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<td>1,042</td>
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<td>1,151</td>
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<td>Total Debt Service Coverage By Net Revenues (x)</td>
<td>2.42</td>
<td>2.41</td>
<td>2.48</td>
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Source: Moody’s Investors Service Municipal Financial Ratio Analysis Database

Profile

The authority 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-mile portion of Illinois Route 390. Approximately 11.4% of traffic is commercial but this class of vehicles accounted for over 44.6% of revenues in fiscal 2017. The percentage of commercial revenues is forecasted to surpass passenger vehicles 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 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 84 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 96.5 mile Ronald Reagan Memorial Tollway that constitutes a portion of US Interstate Highway 88.

Detailed credit considerations

The authority’s 2017 transactions and revenues demonstrated strong growth of 7.0% and 7.6%, respectively. Commercial traffic grew 5.2% despite a 6.67% commercial rate increase implemented on January 1, 2017. The high revenue growth in 2017 was due to the 6.67% commercial rate increase implemented in January 2017, the opening of segments of the new Interstate 390 (I-390) formerly known as the Elgin O’Hare Expressway, the completion of widening on Interstate-90 (Jane Addams Expressway), and sustained overall traffic growth despite a continued slow economic recovery. Through June 2018 toll transactions were up 3.2% over the same period in 2017 and toll revenue was up 4.4%. Commercial vehicle transactions through June 2018 were up 6.8% despite a 1.84% commercial rate increase implemented in January 2018. Another scheduled commercial rate increase of 2.25% will go into effect on January 1, 2019.

For 2018 total operating revenue is 1.6% above budget tracking the budget through the second quarter, and total maintenance and operating expenditures are running 0.5% below budget. The lower expenditures were largely due to group insurance and payroll and related costs. The 2017 net revenue DSCR as calculated by Moody’s was 2.73x and is expected to be 2.60x in 2018.

The Move Illinois program as a whole remains on schedule and budget and includes approximately $10 billion of system improvement projects and $4 billion of capacity expansion projects. The base case financial forecast including all planned future debt to fund the...
Move Illinois program remains above 2.2x assuming 1.7% average annual growth (AAG) for traffic and 2.4% for toll revenue. The authority continues to make substantial annual CIP contributions from excess cash flow with $639 million deposited to its two capital accounts, the Renewal and Replacement Account and Improvement Account in 2017 and $684 million budgeted for 2018. The ability to fund a significant portion of the CIP and capital maintenance from cashflow is a credit strength in that it offsets the need for additional debt.

While the Move Illinois program continues to progress as budgeted, it is susceptible to construction cost overrun risk, including related to right-of-way acquisition for certain right-of-way (ROW) needed from Canadian Pacific Railway and Union Pacific Railway for the remaining portion of the Elgin O’Hare Western Access (EOWA) Project. This project involves the construction of a bypass between I-90 and I-294 along the western side of O’Hare International Airport. Inability to acquire ROW over certain land owned by Canadian Pacific Railway Limited has resulted in the authority engaging in negotiations for alternative ROW from Canadian Pacific and Union Pacific that requires alternative design of part of the I-490 portion of the EOWA Project. Determining an alternative design for such portion of I-490 is underway, and expected to be finalized in the first quarter of 2019.

Revenue Generating Base
The authority has independent rate-setting authority and has demonstrated the willingness and ability to raise rates by establishing a forward schedule of mostly commercial rate increases. The most recent passenger vehicle rate increase occurred on January 1, 2012, and increased rates by approximately 87.5%. As of January 2018, the authority began to increase commercial vehicle toll rates annually at the rate of inflation. In 2018, the inflation-based increase was 1.84% and in 2019 it is scheduled to be 2.25%. Prior to the annual inflationary rate increases, commercial vehicle toll rates increased by 60% between 2015 and 2017. Additionally, in fiscal year 2018, ISTHA implemented a change to how video tolls are assessed. Under the revised policy, I-PASS customers that are video tolled more than five times in a given month will be charged the cash toll rate for the sixth and every subsequent video toll incurred during that month.

Toll revenues generated from the system’s two largest system components, the Jane Addams Memorial and the Tri-State expressways, represent close to 61% of operating revenue, with the other two largest components accounting for 31%. Revenue from toll evasion recovery fee and fine revenue accounts for another 4.7%. Approximately 11.4% of traffic and 44.6% of revenues are commercial vehicles and the proportion of commercial revenues is forecasted to increase to over 50% by 2028 due to the scheduled commercial rate increases. The authority’s electronic toll collection rates are among the highest in the US at approximately 88.0% in 2017, which mitigates volatility typically associated with toll rate increases.

According to the September 2018 Moody’s Analytics report, the Chicago-Naperville-Arlington Heights economy has grown at a faster rate than this time last year. Strong job growth has accelerated and has helped decrease the jobless rate to 4%. Furthermore, the addition of new tech positions will benefit consumer industries and support downtown real estate. Facebook has been aggressively expanding its local team and has signed for new office space twice the size of its current location. Salesforce is planning an expansion as well which could add up to 5,000 jobs and kick off construction of a new skyscraper. Finally, the Chicago area is suffering from poor population trends, which will make it tough to sustain faster growth in the longer term. Among the 25 largest metro areas or divisions in the US, Chicago has lost a large portion of its labor force over the past year.

Operational and Financial Performance
Through June 30, 2018, toll revenues and transactions are up 4.4% and 3.2%, respectively. In 2017 toll revenues increased 7.3% to a record $1.375 billion due to annual inflationary toll increases for commercial vehicles, the opening of sections of I-390 and sustained traffic growth on other system roadways. Total transactions grew 7.0%, with passenger car transactions and revenues increasing 7.3% and 5.5% and commercial transactions and revenues increasing 5.2% and 10.4%, respectively. The continued growth in commercial transactions is particularly notable given the successive years of toll rate increases, which shows inelastic demand for the authority’s tollways and very low sensitivity to rate increases.

From 2018 through 2042 the consultant forecasts average annual transaction growth (AAG) of 1.37% and AAG revenue growth of 2.3%, including CPI-U based approved increases in commercial tolls set at 1.84% and 2.25% in 2018 and 2019, respectively, and, for the purposes of revenue projections, assumed at 2% annually thereafter. We believe this forecast is reasonable given historic growth pattern, the addition of the new I-390, formerly known as the Elgin O’Hare Expressway and the lane additions on other system tollways.
LIQUIDITY
The authority's unrestricted cash and investments for 2017 was strong at 1,336 days cash on hand, up from 1,151 days cash on hand in 2016. 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 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

DEBT STRUCTURE
The authority will have $6.1 billion in outstanding debt after the expected Series 2018 A issue. Overall debt structure escalates gradually through 2027, then becomes more level. Bonds have a relatively short maturity profile, given the maximum 25 year maturity permitted by state statute. The authority's $1.177 billion of currently outstanding synthetic fixed rate debt will be reduced by the amount of Series 2007A and 2008A bonds refunded as part of this transaction. Except for Series 2008 A-1b, which is a direct purchase by RBC Municipal Products for a term ending February 2020, all of the authority's variable rate debt is supported by external liquidity with earliest expiration in February 2019.

The authority plans to issue an additional $2.9 billion of debt to fund the Move Illinois program through 2026. Approximately $300 million may be issued in early 2019, $400 million later in 2019, and an additional $1.4 billion from 2020-2022, and approximately $800 million from 2023-2025. These amounts and the timing are estimated and subject to change.

DEBT-RELATED DERIVATIVES
The authority has seven interest rate swap agreements outstanding under which it pays a fixed rate and receives a floating rate on a notional amount of approximately $1.177 billion. With the Series 2018 A issue, ISTHA aims to reduce its swap portfolio by about one-third from the current 19% of total outstanding debt. 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 October 31, 2018 the authority's swaps had a negative mark-to-market of $139.291 million.

PENSIONS AND OPEB
Authority employees participate in the State Employees' Retirement System (SERS), a public employee defined-benefit pension plan. Under the Illinois Pension Code required contributions to fund SERS are calculated or determined by actuaries on an annual basis. The authority's required contributions are computed in accordance with the state's Pension Code.

Pursuant to GASB 68, as of December 31, 2017, the authority reported a liability of $888.46 million for its proportionate share of the state's net pension liability for SERS. Moody's calculates an adjusted net pension liability (ANPL) at $1.517 billion based on our lower discount rate assumption. This amount is relatively high (24.9%) in relation to ISTHA's $6.088 billion in outstanding debt. Pension expenses in 2017 of $118.1 million represent 10.8% of GAAP-based operating expenses.

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 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 four year terms. No more than five directors may be from the same political party. Of the directors appointed by the governor, one is appointed as chair of the authority. The authority's board appoints an executive director and employs certain other personnel to administer the tollway and implement its policies.

Other Considerations: Mapping to the Grid
The published rating is one notch below the grid indicated rating because of increasing commercial vehicle concentration, which we view as more volatile than passenger vehicle traffic. Additionally the published rating incorporates potential risks associated with state fiscal pressures.
Please see our Government Owned Toll Roads Rating Methodology for information about the limitations inherent to grids.

### Exhibit 3
**Government Owned Toll Roads Scorecard**
**Illinois State Toll Highway Authority**

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<td>b) Operating History</td>
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<td></td>
<td>c) Competition</td>
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<td>d) Service Area Characteristics</td>
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<td>2. Performance Trends</td>
<td>a) Annual Traffic Transactions</td>
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<td>b) Traffic Profile</td>
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<td>c) Five Year Traffic CAGR</td>
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<td>d) Ability and Willingness to Increase Toll Rates</td>
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<td>3. Financial Metrics</td>
<td>a) Debt Service Coverage Ratio</td>
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<td></td>
<td>b) Debt to Operating Revenue</td>
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<td>b) Limitations to growth/Operational Restrictions</td>
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<td>4 - Other Financial, Operating and Debt Factors</td>
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**Scorecard Indicated Rating:**

Aa2

*Source: Moody’s Investors Service*
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