and possible government interference in some countries. Regulatory, litigation, liquidity, technology and reputational risk as well as changes to consumer and business spending patterns, competitor strategies and macroeconomic trends also affect ratings.

Following are some examples of additional considerations that may be reflected in our ratings and that may cause ratings to be different from scorecard-indicated outcomes.

Construction and Ramp-Up Risk

In assessing the credit profile of a start-up toll road or parking facility, we consider the incremental risk posed by construction or ramp-up to full operations, as well as the principal mitigants for these risks. We typically assess construction complexities and the possibility for cost overruns or delays, contractual mitigants and available liquidity.

In terms of construction complexity, we typically view greenfield construction of a new toll road alignment as having lower complexity than a new construction within the medians of existing roads, or construction that involves a high degree of integrating or planning around existing infrastructure, such as crossings over busy intersections, or physical barriers. Important considerations for assessing the level of construction risk associated with a project include: the construction site and alignment, necessary easements, required construction permits and other regulatory approvals, soil, geotechnical and structural complexity, management's experience in construction oversight, the terms of the construction contract, the ability to replace the contractor on similar commercial terms and the contractor's experience as well as its credit quality and the performance security posted. We typically consider the general guiding principles discussed in our methodology for privately financed public infrastructure projects (PFI/PPP/P3)[13] in the construction period to help assess the magnitude of construction risk.

In assessing factors in the scorecard in the context of ramp-up risk, our assessment is based on a forward-looking view. For example, our assessment of Operating Track Record and Revenue Stability is informed by assumptions of traffic capture rates and growth forecasts for a new toll road, based on available data on traffic patterns in the region or corridor. In order to compare the demand profile, trends and financial operations for start-up toll roads and parking facilities with those of established toll roads or parking facilities, we typically develop a base case of expected demand and a revenue forecast. We may also consider stress scenarios to incorporate uncertainty in achieving the base case, because demand and revenue forecasts are complex and dependent on many variables. These projected metrics, along with the other scorecard factors and sub-factors, inform our assessment of a start-up issuer's ability to support planned debt relative to established issuers.

In most cases, start-up issuers, or issuers with projects under construction, which lack long and stable operating track records of demand and revenue, tend to have weaker credit profiles than established issuers.

Traffic Profile

The traffic profile and revenue composition of a toll road may make it more or less resilient to downturns in the economy and can affect the pace and extent of recovery. Toll roads with a significant level of daily commuter traffic are generally more resilient to traffic declines during economic downturns than toll roads with a significant level of commercial vehicle traffic or toll roads with a heavy component of leisure traffic. Commercial traffic can account for a substantial portion of a toll road's total revenue, due to the typically higher tolls charged, which amplifies the impact on revenues when commercial traffic declines.

13 PFI stands for private finance initiatives, and PPP or P3 stands for public-private partnerships. For a link to an index of our sector and cross-sector methodologies, please see the "Moody's Related Publications" section.

Management Strategy

The quality of management is an important factor supporting an issuer's credit strength. Assessing the execution of business plans and capital plans over time can be helpful in assessing management's business strategies, policies and philosophies and in evaluating management performance relative to performance of competitors and our projections. A record of consistency provides insight into management's likely future performance in stressed situations and can be an indicator of management's tendency to depart significantly from its stated plans and guidelines.

Financial Controls

We rely on the accuracy of audited financial statements to assign and monitor ratings in this sector. The quality of financial statements may be influenced by internal controls, including the proper tone at the top, centralized operations, and consistency in accounting policies and procedures. Auditors' reports on the effectiveness of internal controls, auditors' comments in financial reports and unusual restatements of financial statements or delays in regulatory filings may indicate weaknesses in internal controls.

Liquidity

As discussed in the "Notching Factors" section, liquidity is an important consideration for all toll roads and parking facilities. Liquidity can be particularly important for lower-rated issuers and start-ups, which typically have more ramp-up risk and less operating and financial flexibility. We typically assess likely near-term liquidity requirements, considering both the sources and uses of cash. We may also consider legal covenants and the issuer's cushion of compliance to assess whether the issuer is likely to require covenant relief in the event of a downturn in traffic or an issuer-specific decline in performance.

Additional Metrics

The metrics included in the scorecard are those that are generally most important in assigning ratings to issuers in this sector; however, we may use additional metrics to inform our analysis of specific toll roads or parking facilities. These additional metrics may be important to our forward view of metrics that are in the scorecards or other rating factors.

Event Risk

We also recognize the possibility that an unexpected event could cause a sudden and sharp decline in an issuer's fundamental creditworthiness, which may cause actual ratings to be lower than the scorecard-indicated outcome. Event risks — which are varied and can range from force majeure events, such as earthquakes, to permitting issues or changes in governing legislation or law — can overwhelm even a stable, well-capitalized issuer.

Environmental, Social and Governance Issues

Environmental, social and governance (ESG) considerations may affect the ratings of issuers in the toll road and parking facility sectors. For information about our approach to assessing ESG issues, please see our methodology that describes our general principles for assessing these risks.[14]

Toll roads and parking facilities are susceptible to changes in demand related to the regulation of the automotive and petroleum industries, with the potential that increases in the cost of purchasing or operating vehicles could lead to lower transaction levels. Vehicles are subject to a substantial degree of regulatory oversight, including consumer safety and environmental standards related to carbon dioxide and other emissions. As regulations in the automotive and petroleum industries increase in scope or where meaningful regional differences in regulation exist, they may have a differentiating impact on toll roads and

[14] An index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

parking facilities. Changes in technology, such as the commercialization of competitively priced low/no-emission vehicles, may mitigate the effect on demand for toll roads and parking facilities. Extreme weather events, like wildfires or hurricanes that result in flooding, can cause asset damage, in particular for assets located in coastal areas that may be more exposed to flooding due to sea level rise.

Our view of future regulations plays an important role in our expectations of future financial metrics and affects the scenario analyses we may undertake as well as our confidence level in the ability of an issuer to generate sufficient cash flows relative to its debt burden over the medium and longer term.

For issuers in this sector, we also consider social issues that could have a material impact, either positive or negative, on their ability to service debt. For example, we may consider demographic shifts such as high population growth that could lead to additional demand or the need for additional infrastructure, or an aging population that could lead to lower transportation demand in the future, barring technological advances (e.g., automated vehicles).

Seasonality

Seasonality is an important driver of traffic and higher volatility of demand creates less room for errors in operational execution. For example, leisure traffic is more susceptible to economic shocks than commuter traffic and may represent a substantial or majority component of total annual revenue for some issuers.

Assigning Issuer-Level and Instrument-Level Ratings

After considering the scorecard-indicated outcome, other rating considerations and relevant cross-sector methodologies, we typically assign a senior secured instrument rating (typically secured by revenue pledges). We may also assign ratings to other debt classes. Individual debt instrument ratings factor in decisions on notching for seniority level and collateral. We may also assign an issuer rating.

In some limited cases, we may consider that a publicly managed toll road operating under a concession may receive extraordinary support from a government. In these cases, we may assign a Baseline Credit Assessment and apply our methodology for government-related issuers.[15] Any ratings uplift related to the potential for extraordinary support from a government parent would normally be quite limited, because all issuers rated under this methodology are all publicly owned, and many of the benefits of public ownership are considered in the scorecard.

Assumptions

Key rating assumptions that apply in this sector include our view that sovereign credit risk is strongly correlated with that of other domestic issuers, that legal priority of claim affects average recovery on different classes of debt sufficiently to generally warrant differences in ratings for different debt classes of the same issuer, and the assumption that access to liquidity is a strong driver of credit risk.

Our forward-looking opinions are based on assumptions that may prove, in hindsight, to have been incorrect. Reasons for this could include unanticipated changes in any of the following: the macroeconomic

[15] For an explanation of the baseline credit assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers. A link to an index of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's Related Publications" section.

environment, general financial market conditions, industry competition, disruptive technology, or regulatory and legal actions.

Limitations

In the preceding sections, we have discussed the scorecard factors, many of the other rating considerations that may be important in assigning ratings, and certain key assumptions. In this section, we discuss limitations that pertain to the scorecard and to the overall rating methodology.

Limitations of the Scorecard

There are various reasons why scorecard-indicated outcomes may not map closely to actual ratings.

The scorecard in this rating methodology is a relatively simple tool focused on indicators for relative credit strength. Credit loss and recovery considerations, which are typically more important as an issuer gets closer to default, may not be fully captured in the scorecard. The scorecard is also limited by its upper and lower bounds, causing scorecard-indicated outcomes to be less likely to align with ratings for issuers at the upper and lower ends of the rating scale.

The weights for each sub-factor and factor in the scorecard represent an approximation of their importance for rating decisions across the sector, but the actual importance of a particular factor may vary substantially based on an individual issuer's circumstances.

Factors that are outside the scorecard, including those discussed above in the "Other Rating Considerations" section, may be important for ratings, and their relative importance may also vary from company to company. In addition, certain broad methodological considerations described in one or more cross-sector rating methodologies may be relevant to ratings in this sector.[16] Examples of such considerations include the following: how sovereign credit quality affects non-sovereign issuers, the assessment of credit support from other entities, the relative ranking of different classes of debt and hybrid securities, and the assignment of short-term ratings.

We may use the scorecard over various historical or forward-looking time periods. Furthermore, in our ratings we often incorporate directional views of risks and mitigants in a qualitative way.

General Limitations of the Methodology

This methodology document does not include an exhaustive description of all factors that we may consider in assigning ratings in this sector. Issuers in the sector may face new risks or new combinations of risks, and they may develop new strategies to mitigate risk. We seek to incorporate all material credit considerations in ratings and to take the most forward-looking perspective that visibility into these risks and mitigants permits.

Ratings reflect our expectations for an issuer's future performance; however, as the forward horizon lengthens, uncertainty increases and the utility of precise estimates, as scorecard inputs or in other rating considerations, typically diminishes. In any case, predicting the future is subject to substantial uncertainty.

16 A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix A: Using the Scorecard to Arrive at a Scorecard-Indicated Outcome

1. Measurement or Estimation of Factors in the Scorecard

In the "Discussion of the Scorecard Factors" section, we explain our analytical approach for scoring each scorecard sub-factor or factor,[17] and we describe why they are meaningful as credit indicators.

The information used in assessing the sub-factors is generally found in or calculated from information in the company's financial statements or regulatory filings, derived from other observations or estimated by Moody's analysts. We may also incorporate non-public information.

Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons. Financial ratios,[18] unless otherwise indicated, are typically calculated based on an annual or 12-month period. However, the factors in the scorecard can be assessed using various time periods. For example, rating committees may find it analytically useful to examine both historical and expected future performance for periods of several years or more.

The quantitative credit metrics may incorporate analytical adjustments that are specific to a particular issuer.

2. Mapping Scorecard Factors to a Numeric Score

After estimating or calculating each sub-factor, the outcomes for each of the sub-factors are mapped to a broad Moody's rating category (Aaa, Aa, A, Baa, Ba, B, Caa or Ca, also called alpha categories) and to a numeric score.

Qualitative factors are scored based on the description by broad rating category in the scorecard. The numeric value of each alpha score is based on the scale below.

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
1	3	6	9	12	15	18	20

Quantitative factors are scored on a linear continuum. For each metric, the scorecard shows the range by alpha category. We use the scale below and linear interpolation to convert the metric, based on its placement within the scorecard range, to a numeric score, which may be a fraction. As a purely theoretical example, if there were a ratio of revenue to interest for which the Baa range was 50x to 100x, then the numeric score for an issuer with revenue/interest of 99x, relatively strong within this range, would score closer to 7.5, and an issuer with revenue/interest of 51x, relatively weak within this range, would score closer to 10.5. In the text or table footnotes, we define the endpoints of the line (i.e., the value of the metric that constitutes the lowest possible numeric score, and the value that constitutes the highest possible numeric score).

Aaa	Aa	A	Baa	Ba	B	Caa	Ca
0.5-1.5	1.5-4.5	4.5-7.5	7.5-10.5	10.5-13.5	13.5-16.5	16.5-19.5	19.5-20.5

17 When a factor comprises sub-factors, we score at the sub-factor level. Some factors do not have sub-factors, in which case we score at the factor level.

18 For definitions of our most common ratio terms, please see *Moody's Basic Definitions for Credit Statistics (User's Guide)*. A link can be found in the "Moody's Related Publications" section.

3. Determining the Overall Scorecard-Indicated Outcome

The numeric score for each sub-factor (or each factor, when the factor has no sub-factors) is multiplied by the weight for that sub-factor (or factor), with the results then summed to produce an aggregate numeric score before notching factors (the preliminary outcome). We then consider whether the preliminary outcome that results from the three weighted factors should be notched upward or downward[19] in order to arrive at an aggregate numeric score after notching factors, based on Debt Service Reserve Fund, Open Flow of Funds, Days Cash on Hand, Asset Ownership and Financing Structure, and Leverage Outlook. In aggregate, the notching factors can result in a total of up to one upward notch or up to six downward notches from the preliminary outcome to arrive at the scorecard-indicated outcome.

Aggregate numeric scores before and after notching factors are mapped to an alphanumeric. For example, an issuer with an overall numeric score before notching factors of 11.7 would have a Ba2 preliminary outcome, based on the ranges in the table below. If the combined notching factors totaled two upward notches, the aggregate numeric score after notching factors would be 9.7, which would map to a Baa3 scorecard-indicated outcome.

Scorecard-Indicated Outcome

Scorecard-Indicated Outcome	Aggregate Numeric Score
Aaa	x ≤ 1.5
Aa1	1.5 < x ≤ 2.5
Aa2	2.5 < x ≤ 3.5
Aa3	3.5 < x ≤ 4.5
A1	4.5 < x ≤ 5.5
A2	5.5 < x ≤ 6.5
A3	6.5 < x ≤ 7.5
Baa1	7.5 < x ≤ 8.5
Baa2	8.5 < x ≤ 9.5
Baa3	9.5 < x ≤ 10.5
Ba1	10.5 < x ≤ 11.5
Ba2	11.5 < x ≤ 12.5
Ba3	12.5 < x ≤ 13.5
B1	13.5 < x ≤ 14.5
B2	14.5 < x ≤ 15.5
B3	15.5 < x ≤ 16.5
Caa1	16.5 < x ≤ 17.5
Caa2	17.5 < x ≤ 18.5
Caa3	18.5 < x ≤ 19.5
Ca	19.5 < x ≤ 20.5
C	x > 20.5

In general, the scorecard-indicated outcome is oriented to the senior rating secured by a pledge on revenues. For issuers that benefit from rating uplift from parental support, government ownership or other institutional support, we consider the underlying credit strength or Baseline Credit Assessment for

19 Numerically, a downward notch adds 1 to the score, and an upward notch subtracts 1 from the score.

comparison to the scorecard-indicated outcome. For an explanation of the Baseline Credit Assessment, please refer to *Rating Symbols and Definitions* and to our cross-sector methodology for government-related issuers.[20]

[20] A link to an index of our sector and cross-sector methodologies and a link to *Rating Symbols and Definitions* can be found in the "Moody's Related Publications" section.

Appendix B: Publicly Managed Toll Road and Parking Facilities Scorecard

Sub-factor	Sub-Factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Ca
Factor 1: Market Position (45%)									
Asset Type	15%	Large multi-asset state- or province-wide network of essential toll roads, bridges or parking assets; or toll road is a critical link for major economic hubs or metropolitan areas.	Multi-asset state- or province-wide network of essential toll roads, bridges or parking assets.	Single-asset or small regional multi-asset network of essential toll road(s), bridge(s) or parking asset(s).	Single asset or small regional multi-asset; somewhat essential.	Single asset or small multi-asset; limited essentiality.	Small single asset; questionable essentiality.	Small single asset; highly questionable essentiality.	Small, single asset; nonessential.
Competitive Position and Environment	15%	**Toll Roads:** Extremely strong, well-established and stable competitive position; and limited to no competition from alternative transport modes (including rail, air and other roads/bridges).	**Toll Roads:** Very strong, well-established and stable competitive position; and other existing routes pose limited competitive threat even in times of economic stress due to sufficient distance or because they are of lower quality, and no significant enhancements expected to alternative transport modes (including rail, air and other roads/bridges).	**Toll Roads:** Strong competitive position; preferred route/crossing; existing alternative transport modes (including rail, air and other roads/bridges) are of good quality and reasonable proximity and are likely to attract some traffic in times of economic stress or to easily absorb some of the growing traffic in the area.	**Toll Roads:** Moderately strong competitive position, or the issuer's competitive position is favorable but still developing; somewhat preferred route/crossing; existing alternative transport modes (including rail, air and other roads/bridges) are of high quality and close proximity or are expected to be upgraded and to attract some traffic in times of economic stress or to easily absorb growing traffic in the area.	**Toll Roads:** Moderately weak competitive position, or the issuer's competitive position is still developing; somewhat preferred route/crossing; existing alternative transport modes (including rail, air and other roads/bridges) have ample capacity to easily attract traffic in times of economic stress.	**Toll Roads:** Weak competitive position, or competitive environment is eroding the issuer's current traffic trends; or the competitive environment is changing and a significant negative impact on traffic is expected.	**Toll Roads:** Very weak competitive position, or traffic is significantly declining; or the competitive environment is changing and a very significant negative impact on traffic is expected.	**Toll Roads:** Extremely weak competitive position, or traffic declines are significant and rapid and expected to continue; or the competitive environment is changing rapidly and a very significant negative impact on traffic is expected in the near term.

Sub-factor	Sub-Factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Ca
		Parking Facilities: Extremely strong, well-established and stable competitive position with favorable location(s), distinct pricing advantage and limited to no competition.	Parking Facilities: Very strong, well-established and stable competitive position with competitive pricing; and no significant enhancements expected to alternatives; and other available parking poses a limited competitive threat even in times of economic stress due to location, price or quality.	Parking Facilities: Strong competitive position; preferred location(s) with competitive pricing; existing alternatives are expected to attract demand in times of economic stress or to easily absorb some of the demand in the area.	Parking Facilities: Moderately strong competitive position, or the issuer's competitive position is favorable but still developing; somewhat preferred location(s) and on-market pricing; existing alternatives are of comparable quality or are expected to be upgraded and to likely attract some demand in times of economic stress or to easily absorb demand in the area.	Parking Facilities: Moderately weak competitive position; somewhat preferred location(s) and on-market pricing; existing alternatives have ample capacity to easily attract demand in times of economic stress, or near-term decline in demand is expected when new alternatives open.	Parking Facilities: Weak competitive position due to uncompetitive pricing; competitive environment is eroding the issuer's current demand trends; or a significant negative impact on parking demand is expected.	Parking Facilities: Very weak competitive position due to uncompetitive pricing; parking demand in the area is declining significantly; or the competitive environment is changing and a very significant negative effect on parking demand is expected.	Parking Facilities: Extremely weak competitive position due to highly uncompetitive pricing; significant and rapid declines in parking demand in the area are expected to continue; or the competitive environment is changing rapidly, with a very significant negative effect on parking demand is expected in the near term.
Economic Strength and Diversity of Service Area	15%	Very large, highly developed and very diversified economic base with very limited volatility (i.e., area encompasses one or more of the strongest economic centers/regions in a large country or very large province/state); and very robust, predictable demographic trends.	Large, highly developed and diversified economic base with limited volatility (i.e., area encompasses a strong, large economic center/region); and robust, predictable demographic trends.	Highly developed and diversified economic base with little volatility (i.e., area encompasses a strong economic center/region); mostly favorable demographic trends.	Developed and diversified economic base with moderate volatility (i.e., area is in close proximity to a strong economic center/region); slightly favorable demographic trends.	Developed and fairly diversified economic base but with some track record of economic downturns with protracted recoveries; slightly unfavorable demographic trends.	Weak economic base; a sizable concentration in a few industries/ sectors that are susceptible to economic shocks; unfavorable demographic trends.	Small, weak economic base; strong concentration in a few sectors with strong susceptibility to shocks; or highly unfavorable demographic trends.	Small, very weak or isolated economic base; highly concentrated in very vulnerable single industry or sector; or weak demographics and highly unfavorable demographic trends.

Sub-factor	Sub-Factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Ca
Factor 2: Performance Trends (35% Weight)									
Annual Revenue (USD Million)*[1]	5%	≥ $700	$200 - $700	$125 - $200	$50 - $125	$25 - $50	$10 - $25	$5 - $10	< $5
Operating Track Record and Revenue Stability	15%	Very long track record of tolled traffic/paid parking (> 30 years) with stable demand and positive revenue trends; demand is unlikely to decline even in times of economic contraction; and no history of negative shocks.	Long track record of tolled traffic/paid parking (> 20 years) with stable demand and stable revenue trends; and demand may decline temporarily and very modestly in times of economic contraction and is expected to recover fully and rapidly once economic conditions improve.	Track record of tolled traffic/paid parking (> 10 years) with low demand volatility and primarily positive revenue trends; demand is likely to decline modestly in times of economic contraction and is expected to recover fully once economic conditions improve.	Limited track record of tolled traffic/paid parking (> 5 years) or some track record of demand volatility but revenue growth is in line with or generally above expectations; demand may decline moderately in times of economic contraction and is expected to recover at a moderate pace.	Limited track record of tolled traffic/paid parking or track record of demand and revenue volatility; demand is likely to decline moderately in times of economic contraction and is expected to recover somewhat slowly.	Very limited track record of tolled traffic/paid parking or track record of highly volatile demand and revenue; or demand is likely to decline significantly in times of economic contraction, with a lengthy period of contraction or recovery.	Extremely limited track record of tolled traffic/paid parking or track record of significantly volatile demand and revenue; or demand is prone to irreversible shifts; or demand is likely to decline very significantly in times of economic contraction, with a lengthy period of contraction or recovery.	No track record of tolled traffic/paid parking or demand is expected to significantly and continuously decline; or demand is prone to irreversible shifts; or rapid and extreme declines in demand are expected in times of economic contraction, with uncertain contraction and recovery.
Ability and Willingness to Increase Rates	15%	**Toll Roads:** Autonomous toll-setting by independent board or authority and automatic toll increase by legislative policy with very well established, consistent track record of implementation; Or independent, unfettered ability to adjust rates with track record of adjustments as needed; and no expectation of negative repercussions or interference.	**Toll Roads:** Autonomous toll-setting by independent board or authority and automatic toll increase by legislative policy with well established, consistent track record of implementation; Or independent ability to adjust rates with track record of adjustments as needed; and no expectation of negative repercussions or interference.	**Toll Roads:** Autonomous toll-setting by independent board or authority but non-automatic toll increase with some track record of adjustments as needed; and very limited expectation of negative repercussions or interference.	**Toll Roads:** Autonomous toll-setting by independent board or authority but non-automatic toll increase with a mixed or limited track record of adjustments as needed; and limited expectation of negative repercussions or interference.	**Toll Roads:** Non-autonomous toll-setting as toll-setting is subject to government approval or negotiation, with track record of delays or interference; or expectation of some negative repercussions or interference.	**Toll Roads:** Non-autonomous toll-setting as toll-setting is subject to government approval, with short or no track record of increases and very uncertain ability to adjust tolls; or expectation of negative repercussions or interference.	**Toll Roads:** Non-autonomous toll-setting as toll-setting is subject to government approval and there is significant government interference in toll-setting, with highly inflexible ability to adjust tolls; or expectation of material negative repercussions or interference.	**Toll Roads:** Non-autonomous toll-setting, as toll-setting is subject to government approval that is unable or unwilling to adjust tolls; or expectation of a continued inability to adjust tolls; or expectation of persistent and material negative repercussions or interference.

Sub-factor	Sub-Factor Weight	Aaa	Aa	A	Baa	Ba	B	Caa	Ca
		Parking Facilities: Autonomous rate-setting (i.e., automatic by policy with established, consistent track record of implementation) or independent, unfettered ability to adjust parking rates, with a track record of adjustments as needed; and no expectation of impediments to rate increases.	Parking Facilities: Autonomous rate-setting (i.e., automatic by policy with a somewhat consistent track record of implementation) or independent ability to adjust parking rates, with a track record of adjustments as needed; and no expectation of impediments to rate increases.	Parking Facilities: Autonomous rate-setting (i.e., non-automatic rate increase by policy but parking authority can decide to adjust parking rates autonomously); a track record of adjustments as needed; no expectation of interference or negative repercussions.	Parking Facilities: Rate-setting subject to public owner approval and mixed record of adjustments; expectation of limited to no interference or negative repercussions.	Parking Facilities: Rate-setting subject to public owner approval, with a history of delays or interference; or expectation of some interference or negative repercussions.	Parking Facilities: Rate-setting subject to public owner approval, with short or no track record of parking rate adjustments and very uncertain ability to adjust parking rates; or expectation of some material interference or negative repercussions.	Parking Facilities: Significant public owner interference in rate-setting, with highly inflexible ability to adjust parking rates; or expectation of material interference or negative repercussions.	Parking Facilities: Track record of inability or unwillingness to adjust parking rates; or expectation of continued inability to adjust parking rates; or material interference from public owner for the foreseeable future, with materially negative repercussions.
Factor 3: Leverage and Coverage (20%)									
Debt Service Coverage Ratio*[2]	10%	≥ 3x	2x - 3x	1.5x - 2x	1.25x -1.5x	1.1x - 1.25x	1x - 1.1x	0.8x - 1x	< 0.8x
(Debt + ANPL) to Operating Revenue*[3]	10%	≤ 2.5x	2.5x - 4x	4x - 5.5x	5.5x - 7x	7x - 8.5x	8.5x - 10x	10x - 15x	> 15x
Preliminary Outcome									
Debt Service Reserve Fund		Notching Factor							
Open Flow of Funds		Notching Factor							
Days Cash on Hand		Notching Factor							
Asset Ownership and Financing Structure		Notching Factor							
Leverage Outlook		Notching Factor							
Scorecard-Indicated Outcome									

*[1] For the linear scoring scale, the Aaa endpoint value is $1 billion. A value of $1 billion or better equates to a numeric score of 0.5. The Ca endpoint value is zero. A value of zero equates to a numeric score of 20.5.

*[2] For the linear scoring scale, the Aaa endpoint value is 5x. A value of 5x or better equates to a numeric score of 0.5. The Ca endpoint value is 0x. A value of 0x equates to a numeric score of 20.5.

*[3] For the linear scoring scale, the Aaa endpoint value is 0x. A value of 0x equates to a numeric score of 0.5. The Ca endpoint value is 30x. A value of 30x or worse equates to a numeric score of 20.5.

Appendix C: Managed Toll Lanes

Within the toll road sector, managed toll lanes are being built alongside free lanes to alleviate congestion in urban areas. Managed lanes typically use congestion pricing, whereby tolls are raised or lowered at certain times of the day or depending on traffic flow to manage traffic and to maintain speeds on the managed lanes at or above minimum limits.

Credit risks associated with demand risk, single-asset, managed lane projects typically include a limited operating history, high leverage with back-loaded principal amortization profiles and construction risk for greenfield projects. In addition to considering their typical small size, we incorporate our view of the essentiality of managed lanes into our scoring of the Asset Type sub-factor. These projects have typically been most successful along very congested routes in densely populated, major metropolitan areas where drivers find value in the time-money tradeoff. No or limited track record typically leads to relatively low scores in the Operating Track Record and Revenue Stability sub-factor. Construction is usually complex, since the goal of construction efficiency is typically balanced against the goal of limiting the impact on the existing road.

Traffic and revenue for managed lane projects are generally more volatile and difficult to forecast than they are for traditional toll roads due to the use of dynamic tolling to maintain travel speeds. Since managed lanes relieve congestion, increases and decreases in traffic may be disproportionate to increases and decreases in traffic within the project corridor as a whole. As a result, our base revenue forecasts may be more conservative than management's, and we may incorporate stress scenarios into our forward view of Leverage and Coverage metrics, or we may incorporate a lower confidence in future results qualitatively in ratings.

Moody's Related Publications

Credit ratings are primarily determined by sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. An index of sector and cross-sector credit rating methodologies can be found here.

For data summarizing the historical robustness and predictive power of credit ratings, please click here.

For further information, please refer to *Rating Symbols and Definitions*, which is available here.

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Report Number: 1091602

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