

Industry Report Card:

Global Toll Road Industry

Oct. 11, 2022

This report does not constitute a rating action

Key Takeaways

- Toll roads have been the most resilient of all transportation infrastructure asset classes throughout the COVID-19 pandemic, and our portfolio of rated entities has almost completely recovered to pre-pandemic rating levels. Any lag in recovery has been caused by specific asset concerns or timing of reviews.
- Across the project finance, corporates, and U.S. public finance (USPF) portfolios, differences in credit quality are attributable to specific asset characteristics and regional trends, and the outlook is mostly stable.
- Reviewing pre-pandemic data, volume-exposed toll road projects and corporate operators with a majority portfolio concentration in toll roads demonstrated impressive profitability metrics, another signal of the industry's credit strength.

Global Toll Roads Update

A strong mid-year season and pent-up demand for travel have ushered toll roads onto a solid recovery path. Despite a COVID variants-related drop in traffic, the recovery has been generally favorable, with most of our toll roads likely to reach pre-pandemic levels by year-end 2022. Many are already there.

For some operators, passenger car traffic remains below pre-pandemic levels due to decreased commuter traffic, flexible return to work policies, and lingering stringency measures, especially in China. In Australia and parts of the U.S., a proportion of commuters during the pandemic switched transportation preferences away from train and public transit alternatives to toll roads and have not yet reverted to trains. Commercial vehicle traffic has been a bright spot, with stable to positive traffic levels due to increased consumer spending and demand for goods.

Looking ahead to 2023, there are still some concerns over persistent inflationary pressures, the prospects of a recession in many regions, and low economic growth combined with less disposable income that could flatten momentum. While sustained cost savings during the pandemic and flexibility in capital spending for asset classes such as toll roads provides operators with stronger liquidity buffers against rising costs, toll increases onto consumers is another buffer to inflationary pressure for operators lacking contractual tariff-inflation indexation. Social pressure over affordability could lead some governments to mitigate tariff increases on toll roads, despite generally solid contractual framework. This would pressure credit ratings if not adequately compensated, particularly for issuers with lower headroom or other offsetting strengths.

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Toll roads have been the most resilient of transportation infrastructure asset classes throughout the pandemic. Despite the negative impact a recession would have on heavy vehicle traffic, generally strong balance sheets and cash flow generating capacity are likely to generally maintain toll roads' credit quality in a modest economic downturn.

ESG Issues

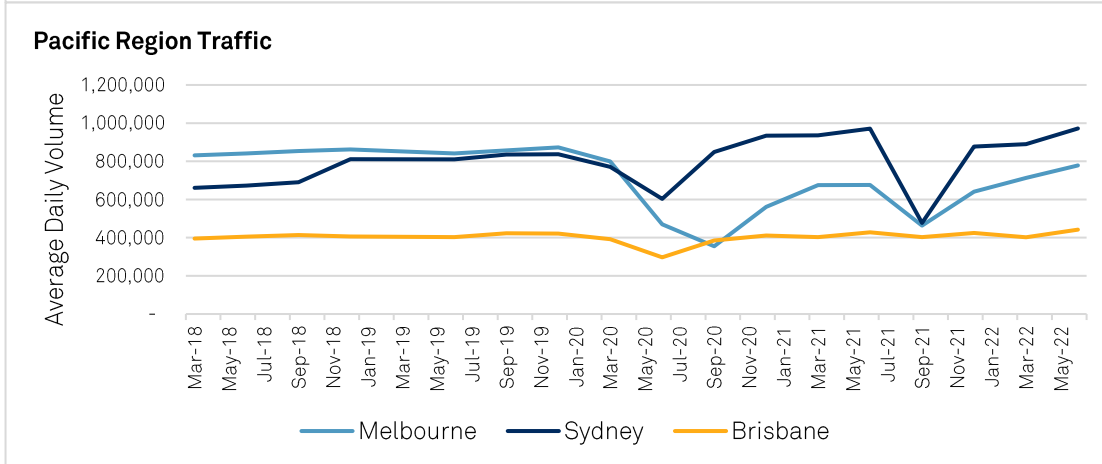
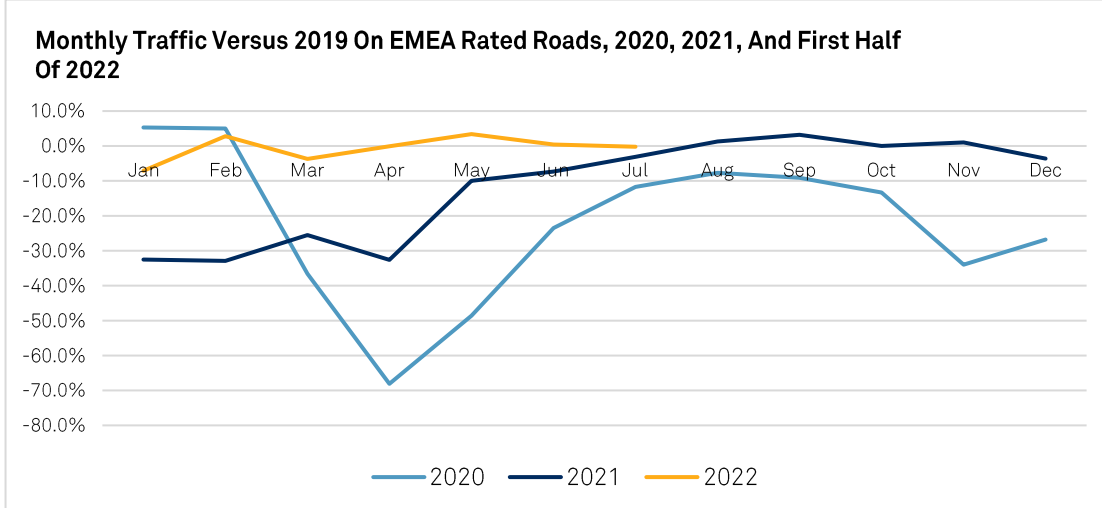
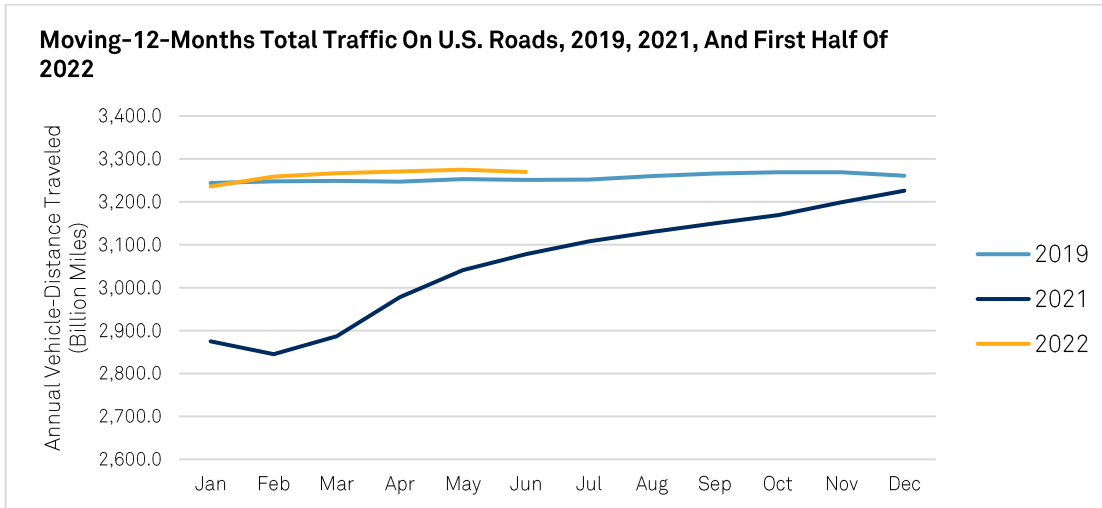
While toll roads recovered from the pandemic significantly faster than other transportation infrastructure assets, the industry faces governance risk with its need to navigate through community and government consultations for new developments and has a significant exposure to price affordability issues.

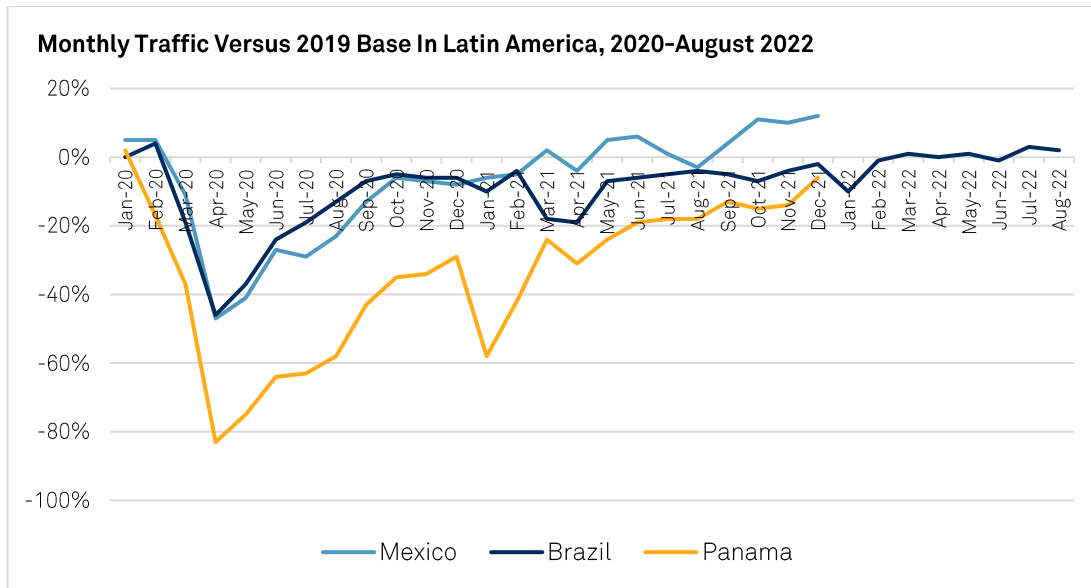
On the environmental side, we do not believe the industry is exposed to a negative secular change amid the transition to a low-carbon economy. A disruption in the technology used in each mode (e.g., replacement of fleets with electric vehicles) is not likely to significantly affect demand. There is no disruptive solution to replace services that roads provide on large scale, even if rail transportation and subways are more environmentally efficient.

Compared to many other infrastructure asset classes, the industry faces relatively much lower acute physical risks such as storms, wildfires, and floods that can impair, disrupt, or even destroy various exposed toll road assets. Additionally, chronic risks such as changing temperature and precipitation patterns and sea level rise can substantially reduce the useful life of these assets. While these concerns are largely dictated by asset location, they merit industrywide assessment.

U.S., EMEA, Pacific, and Latin America Traffic Recovery

Charts 1a-1d





Sources: U.S. Department of Transportation – Federal Highway Administration, S&P Global Ratings.

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Recorded traffic in the U.S. alone has exceeded 2019 as of March 2022 (charts 1a-1d), signaling a full pre-pandemic recovery. Europe, the Middle East, and Africa (EMEA) signals a similar trend, with traffic largely recovered to pre pandemic levels in the first half of 2022, following a solid rebound in May-June 2021 that signaled the relief of mobility restrictions across many European countries. The Pacific region, specifically Australia and New Zealand, recovered sharply late in the third quarter of 2021 and in recent months. In Latin America, Mexico's recovery was the fastest with a significant delay in Panama.

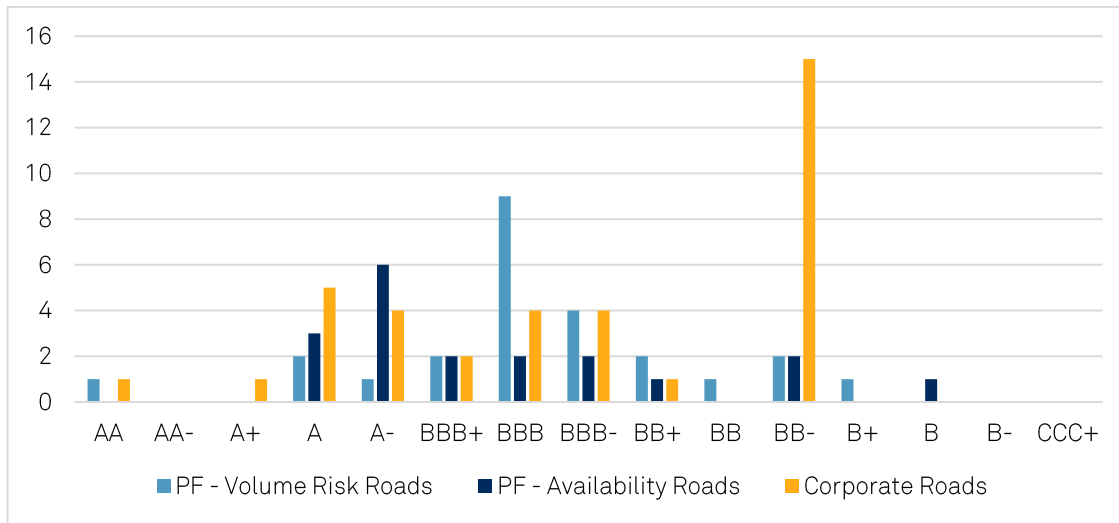
Portfolio Distribution

Below we provide a comprehensive overview of S&P Global Ratings' toll roads portfolio broken down between project finance (both volume risk and availability roads), corporates, and U.S. public finance with insight into five market sectors: North America (NA), Latin America (LATAM), Europe, the Middle East, and Africa (EMEA), China, and Asia-Pacific excluding China (APAC excl. China). For both project finance and U.S. public finance roads this analysis only includes senior debt tranches. All global ratings data is as of Sept. 23, 2022.

Corporates And Project Finance Roads

Chart 2

Ratings Distribution – Methodology Breakdown

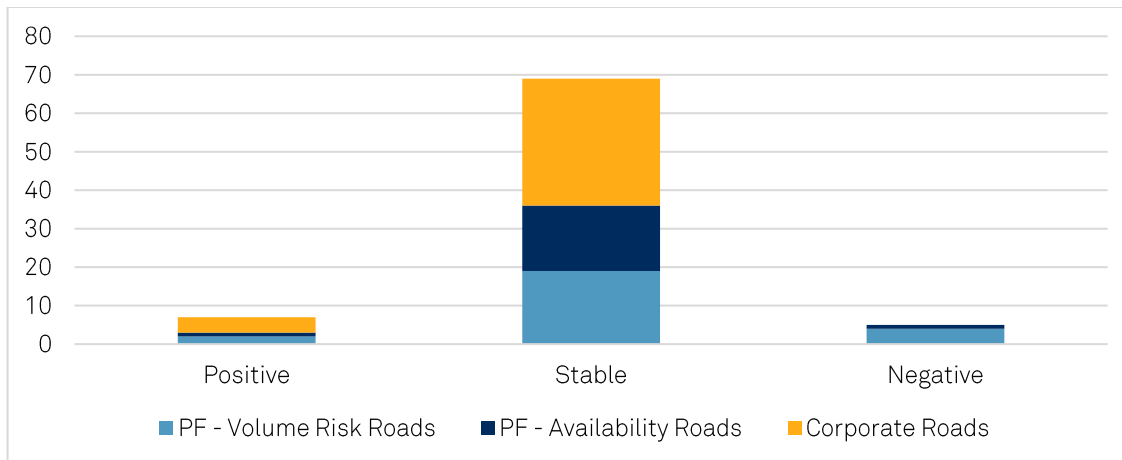


Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 3

Outlooks Distribution – Methodology Breakdown



Source: S&P Global Ratings (as of Sept. 23, 2022).

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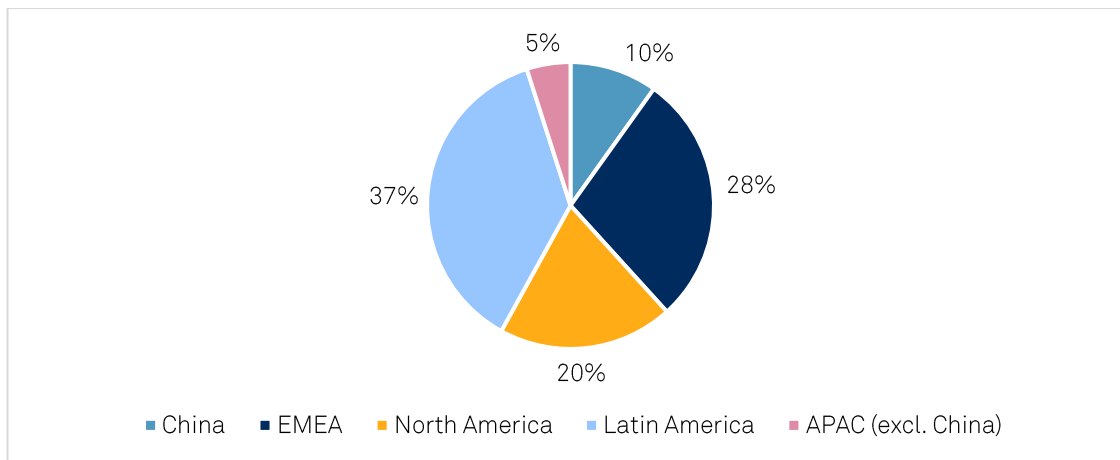
The project finance portfolio (volume risk and availability roads) is heavily concentrated in the low investment-grade area of 'BBB' and 'BBB-' (charts 2 and 3). Most transactions are structured to be at that rating level, and the portfolio accurately reflects that. Outlooks are mostly stable with a small concentration of positive and negative outlooks evenly distributed.

The higher end of the project finance distribution, those rated 'A' and 'A-', is driven by availability roads with revenue risk covered by guaranteed payments from a third party to projects. The lower end of the distribution, 'BBB' and 'BBB-', is driven by volume roads with revenue risk and weaker credit metrics.

The corporates portfolio is concentrated in the high speculative-grade end of 'BB-' and spread throughout. Like project finance, outlooks are mostly stable with some positive entities.

Chart 4

Regional Distribution – Excluding U.S. Public Finance Roads

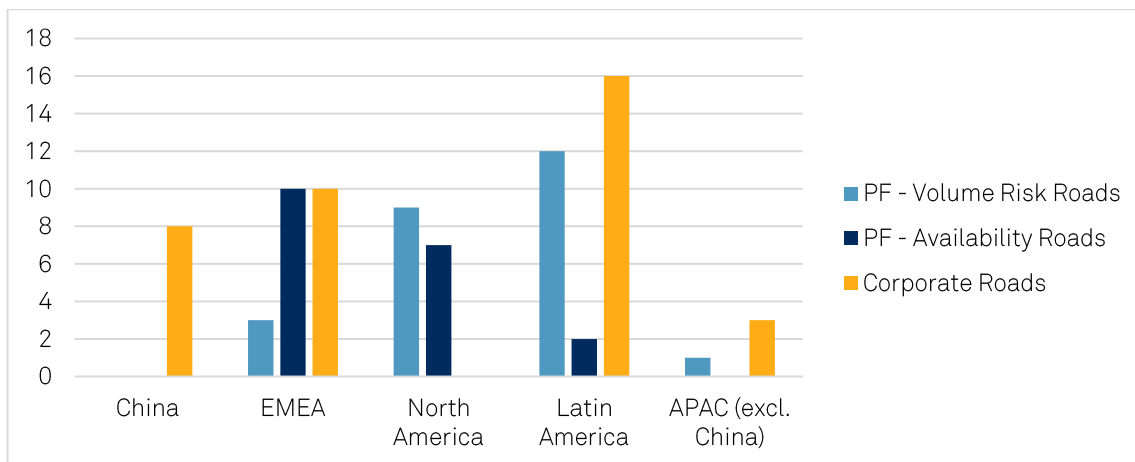


EMEA—Europe, the Middle East, and Africa. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 5

Methodology by Region Breakdown – Excluding U.S. Public Finance Roads



EMEA—Europe, the Middle East, and Africa. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

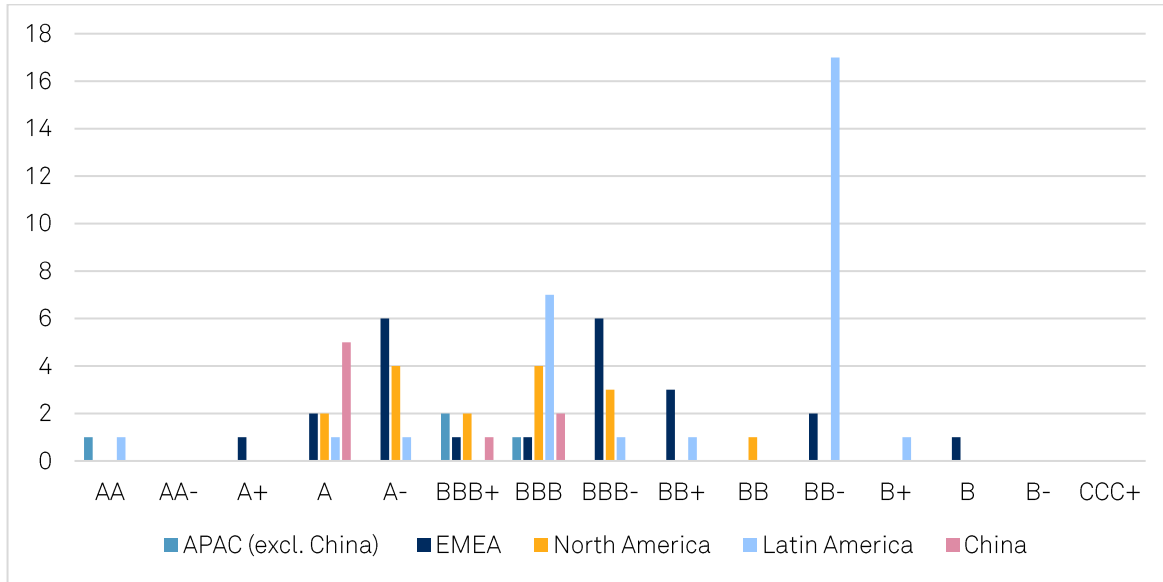
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Most of the combined project finance and corporates portfolio is concentrated in Latin America, with over half of that porportion belonging to corporate roads. Roads in China are exclusively government-supported corporates while roads in North America are exclsuively project finance, almost evenly split between volume and availability. China’s lack of transparency on tariff adjustments does not make it a natural candidate for project financing, which requires contracted risk distribution.

Chart 6

Ratings Distribution – Regional Breakdown

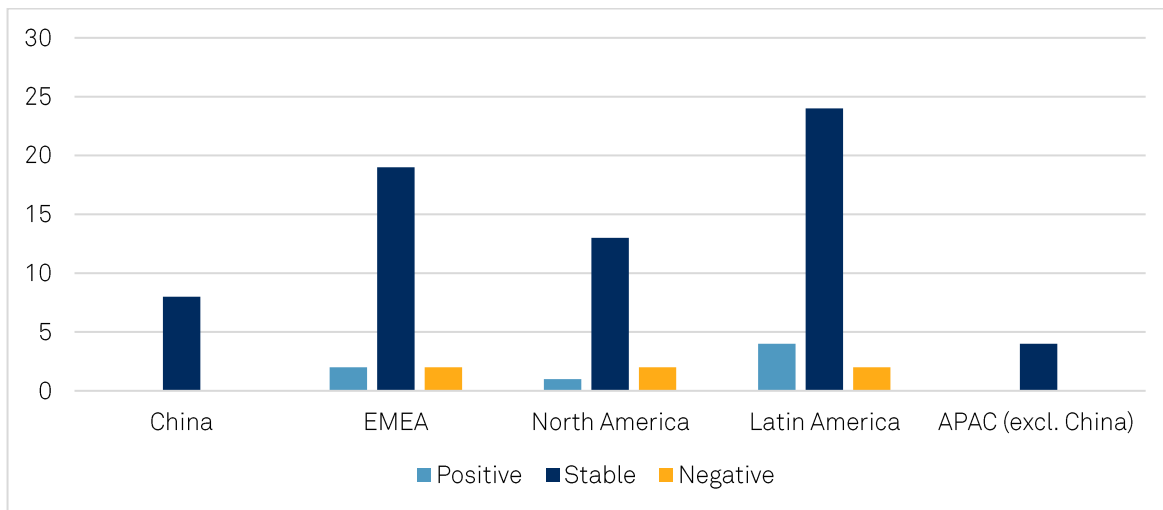


EMEA—Europe, the Middle East, and Africa. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 7

Outlooks Distribution – Regional Breakdown



EMEA—Europe, the Middle East, and Africa. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Latin America accounts for most of the speculative-grade ratings. A key reason is that corporate road ratings in Brazil, with a national rating of 'BB-/Stable', are capped by this sovereign rating ceiling, resulting in regulatory oversight on tariff adjustment.

For China, the portfolio is exclusively investment-grade, benefitting from good standalone credit quality and rating uplifts from parental or government support. The companies tend to either hold most of their toll road network in local provinces or a number of prime mature assets in catchment areas, all vested with strong financing capabilities. Similarly, Korea Expressway Corp. (AA/Stable) is a solely government-owned builder and operator with a near monopoly.

North American road projects have been typically structured to be at least investment grade ('BBB-') for the volume roads in the U.S. and the 'A' category for Canada. Similarly, availability roads across North America are mostly rated 'BBB+' and higher, reflecting lower risk.

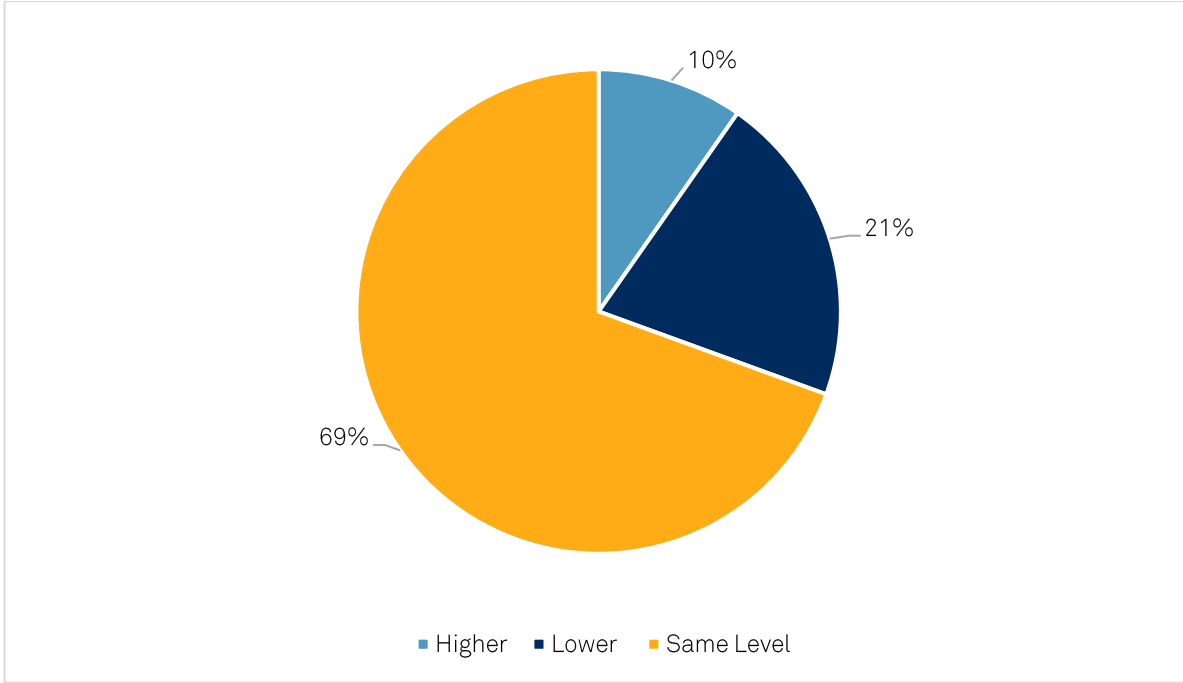
In EMEA, the portfolio is largely investment-grade. There are few outliers with negative or positive outlooks that reflect specific credit considerations such as tax uncertainties, completion of the construction phase, and expected traffic recovery. This reflects availability-based projects for which cash flows were largely unaffected by the pandemic and are resilient to affordability concerns in the inflationary environment. At the same time, corporate issuers include global infrastructure players with cash-generative toll road subsidiaries operating key assets and benefitting from supportive regulatory frameworks. Projects with speculative-grade ratings include Atlantia SpA, which was affected by the collapse of the Genoa bridge in August 2018. Some volume-risk projects benefit from monoline insurer guarantees, but only S&P Underlying Ratings are reflected here.

In Australia, the toll road market is mature with a history of volume risk projects dating to the 1990s. Australian toll roads are characterised by strong/supportive concession agreements with long concession periods. For project-financed or corporate toll roads with volume risk (non-availability payment structures), our ratings are usually 'BBB+' or 'BBB'. Shareholders will re-leverage periodically to pay distributions to equity as traffic increases and credit metrics improve, managing ratings to a constant level.

Rating Changes Trend - 2019 Versus Current

Looking at the combined portfolio of project finance and corporates in 2019 and up to the third quarter of 2022, we observe significant ratings data trends.

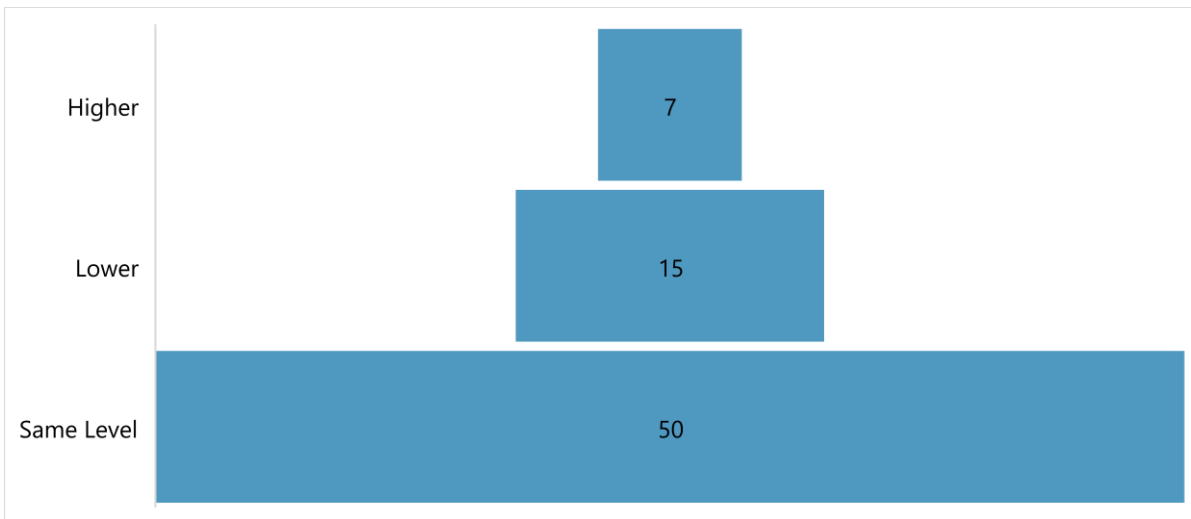
Chart 8a



Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 8b



Source: S&P Global Ratings (as of Sept. 23, 2022).

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Table 1

List Of Credits Below 2019 Ratings

Entity	Region	Rating (as of Sept. 23, 2022; SPUR ratings italicized)	Latest 2019 rating
95 Express Lanes LLC	North America	BBB-	BBB
Abertis Infraestructuras S.A.	EMEA	BBB-	BBB
APP Coatzacoalcos Villahermosa S.A.P.I de C.V.	Latin America	mxBBB+	mxAAA
Atlantia SpA	EMEA	BB+	BBB-
Autopista del Sol Concesionaria Espanola, S.A.	EMEA	BB+	BBB
Autovia de la Mancha, S.A.	EMEA	<i>BB+</i>	<i>BBB-</i>
Concesionaria Mexiquense S.A. de C.V. (follows the same rationale as Red de Carreteras de Occidente)	Latin America	mxAAA	BBB+
ConnectPlus (M25)	EMEA	A-	A+
ENA Norte Trust	Latin America	BB+	BBB
Fideicomiso 1784 (Autopista Rio Verde y Libramiento La Piedad - Availability Tranche)	Latin America	mxAA	mxAAA
Holding d'Infraestructuras de Transport S.A.S.	EMEA	BBB-	BBB
Private Project	North America	BBB-	BBB
Red de Carreteras de Occidente, S.A.B. de C.V.	Latin America	BBB	BBB+
Sanef S.A.	EMEA	BBB-	BBB
Toll Road Investors Partnership II LP	North America	BB	BBB-

EMEA—Europe, the Middle East, and Africa. SPUR—S&P Underlying Ratings. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Our global toll road portfolio has mostly recovered to its pre-pandemic rating levels (charts 8 and 9). While just under 80% of the portfolio has recovered to pre-pandemic levels or higher, some credits have still lagged in recovery. In North America, this is a timing issue for some projects such as 95 Express Lanes, with traffic substantially recovered and likely to be upgraded back to the

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2019 rating this year following resolution of construction issues. For other entities, credit quality has not recovered because of specific credit weaknesses.

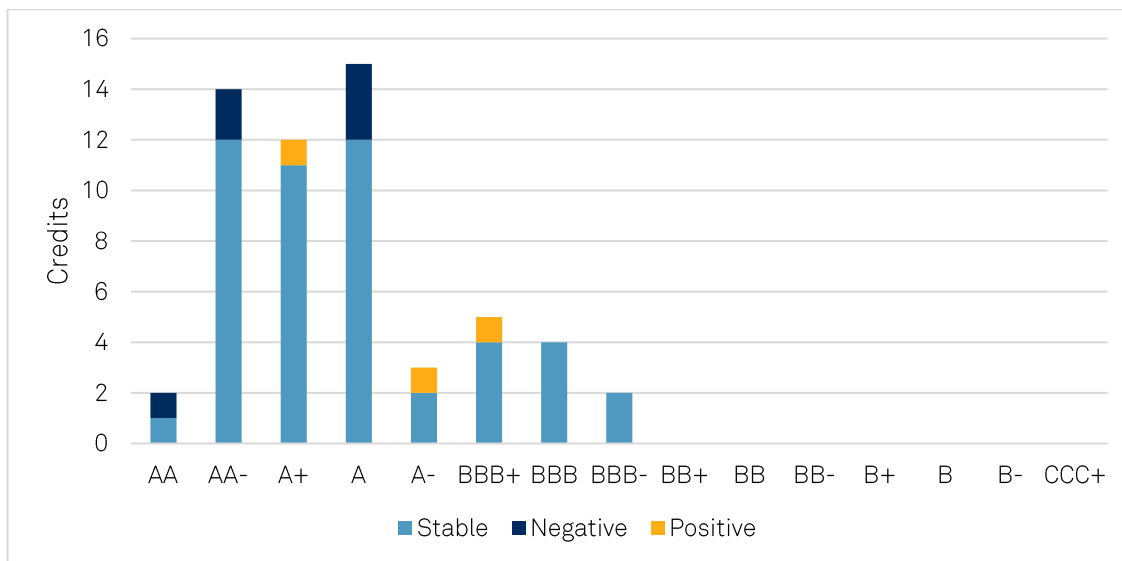
In EMEA, credits such as Sanef S.A. faced lasting credit quality concerns because of the impending expiration of its toll road concessions, which we believe weakens its competitive position. Autovia de la Mancha benefits from an insured rating of 'AA', but our underlying credit rating of 'BB+' suffers from tax exposure because the project is part of a tax group that would be hindered by delayed payments.

For Latin America, ENA Norte Trust traffic in Panama is mostly composed of commuters, with competition from an alternative un-tolled road in the region. As such, traffic recovery almost reached 90% of the 2019 baseline by the end of 2021. We still expect that to continue to gradually increase until it reaches full recovery in 2023. The downgrade of Red de Carreteras de Occidente, S.A.B. de C.V. (RCO) and Concesionaria Mexiquense S.A. de C.V. (Conmex) to 'BBB' from 'BBB+' on March 26, 2020, reflected a similar action on the sovereign. Aside from their respective performance, in our view, they operate in what we consider a highly regulated sector (dependent on tariff adjustments approved or registered by the regulators). Consequently, we believe they could suffer from heavier regulation in a sovereign stress or default scenario and wouldn't generate or maintain sufficient cash to honor their financial obligations.

U.S. Public Finance

Chart 9

Ratings/Outlook Distribution



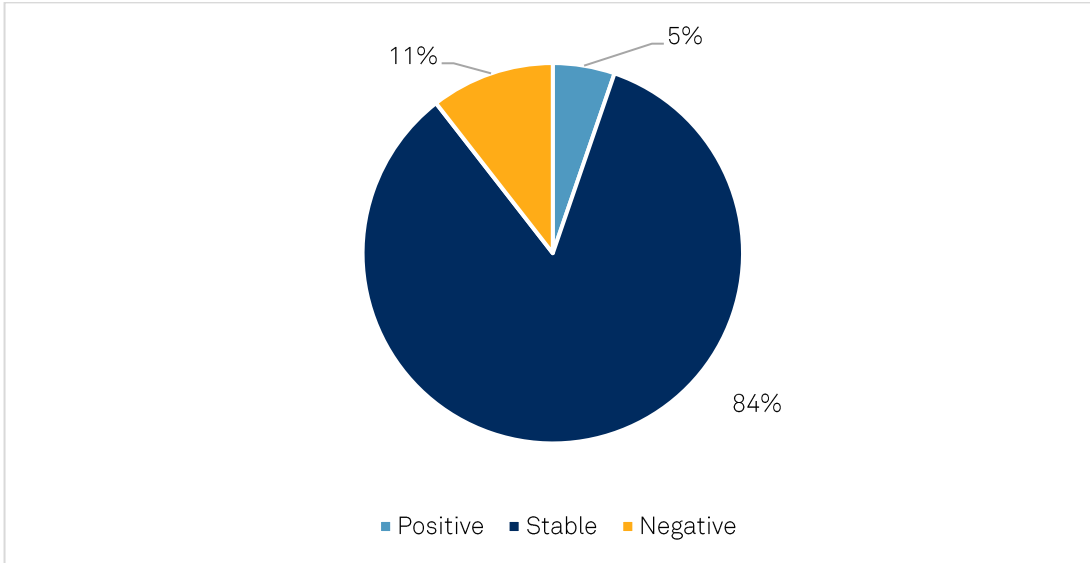
Source: S&P Global Ratings (as of Sept. 23, 2022).

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With a median rating and outlook of 'A/Stable', U.S. public finance roads benefit from the premium credit quality of municipal transaction structures with strong market positions. The entire portfolio is exclusively investment-grade with most in the highest area. Historically, financial results for not-for-profit toll road operators—which have a broad geographic footprint in the U.S.—have mirrored the nation's overall economic trends.

Outlooks Distribution

Chart 10



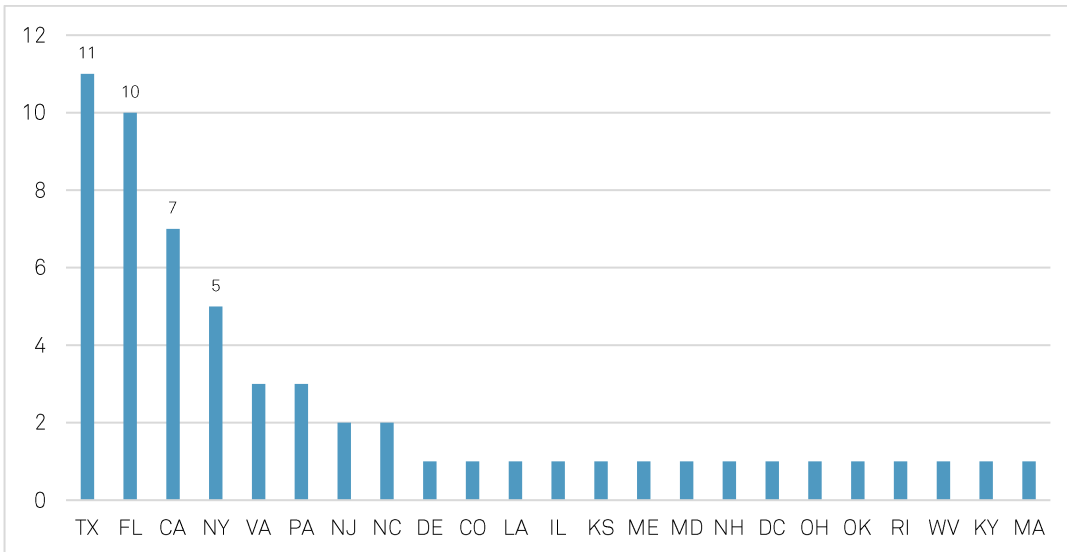
Source: S&P Global Ratings (as of Sept. 23, 2022).

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We have stable outlooks on just under 85% of the portfolio, further reflecting the view of the overall stable outlook for this sector of transportation post COVID-19 recovery.

Chart 11

State Distribution



Source: S&P Global Ratings (as of Sept. 23, 2022).

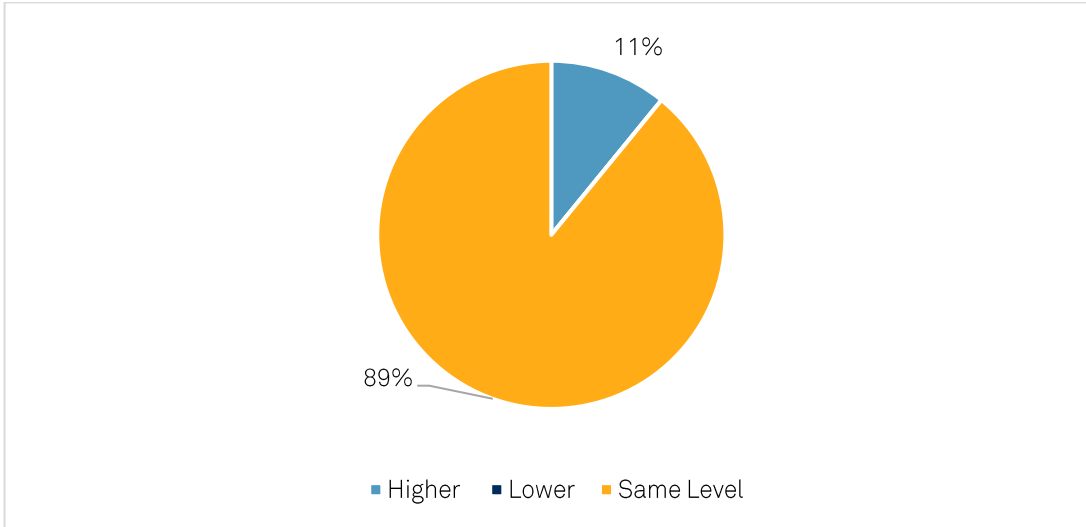
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With a wide distribution over much of the U.S., the portfolio is primarily concentrated in four states (in descending order): Texas, Florida, California, and New York (chart 11).

Rating Changes Trend - 2019 Versus Current

While U.S. public finance ratings tend to be consistent, comparing pre-pandemic and current ratings data offers insight into how these assets have weathered the effects of the pandemic.

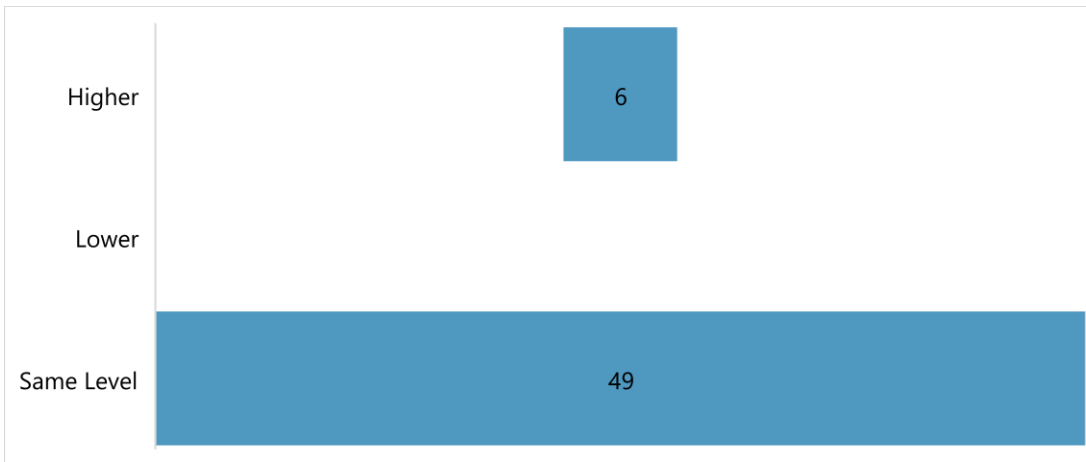
Chart 12a



Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 12b



Source: S&P Global Ratings (as of Sept. 23, 2022).

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Most of the portfolio reverted to 2019 rating levels with an affirmation rate of just under 90%. Some assets have significantly improved on credit metrics, with an upgrade rate of 11%.

Global Toll Road Profitability

We typically expect toll roads, because of their relatively low operating expenses and satisfactory or higher business position compared to other types of entities, to have higher than average EBITDA margins. Given reporting frequencies and recovery timing, we used 2019 data and a pre-pandemic historical trend in margins. For corporates, we only focused on credits where the majority of the entity’s portfolio is toll road assets as a direct comparison with project finance roads.

Corporate Roads

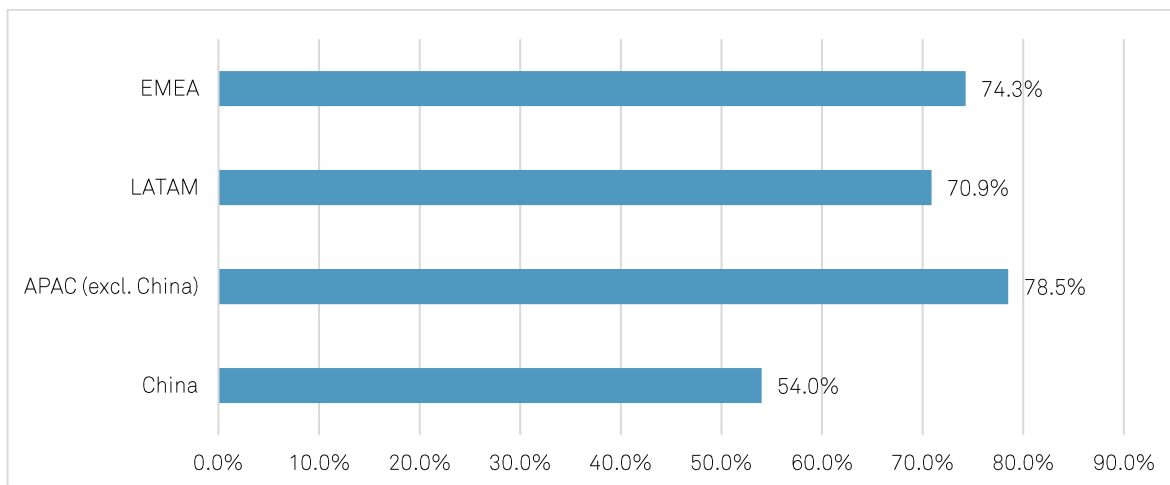
All regions except for China are above 70% EBITDA margins (chart 13). More than other regions, Chinese toll road corporates do not derive all their earnings from pure toll roads. They tend to engage in other business segments, such as profit-seeking renewable energy, engineering and construction, financial leasing, property development, and commodities trading to boost the revenue base. Upcoming concession expirations and government directives drive this diversification, some even leading to a pivot toward other transportation infrastructure assets such as local railways. As such, EBITDA margins are dampened but largely reflect market conditions and not underlying credit quality.

On the other end of the spectrum, Australia is the leader in high EBITDA margins for its corporate roads. Toll pricing is generally linked to inflation, or in some cases a rate above inflation, providing margin expansion over time as traffic increases. Operating margins tend to be high for mature roads with EBITDA margins typically 70%-80%.

In EMEA, we expect European toll road operators to continue benefitting from supportive index-linked tariff setting mechanism or, in some countries, regulated-asset base schemes. Although we cannot rule out that affordability and social pressure may lead governments to mitigate tariff increases, we assume the ability to pass on inflation through tariffs, or to be compensated if it is not, will continue (see “French Single-Network Motorway Concessionaires Ratings Affirmed On Concessions Tail And Robust Credit Metrics”, published June 29, 2022).

Chart 13

2019 Median EBITDA Margin

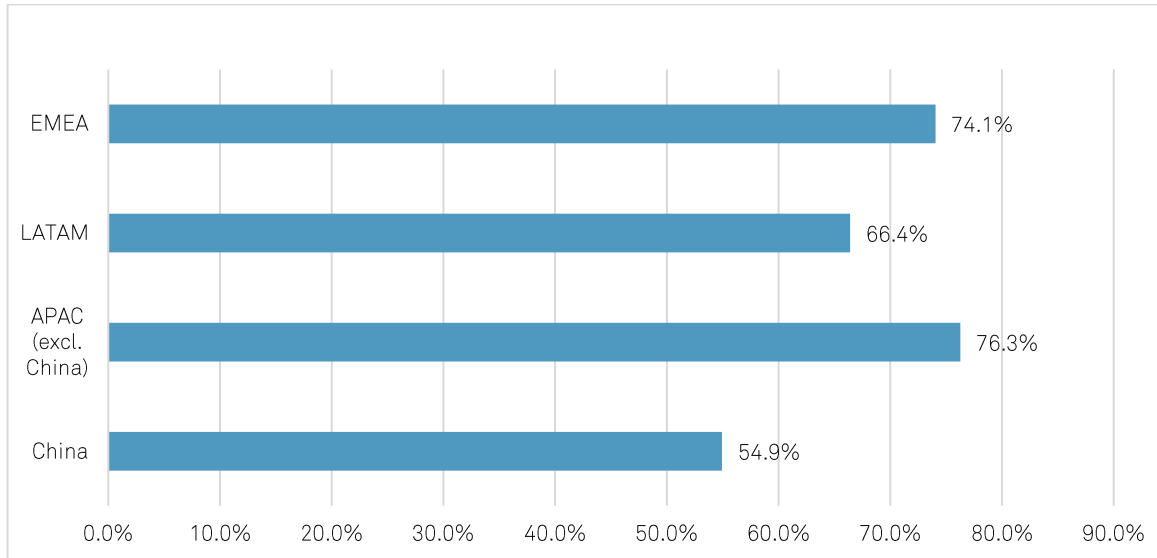


EMEA—Europe, the Middle East, and Africa. LATAM—Latin America. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 14

2016-2019 Median EBITDA Margin



EMEA—Europe, the Middle East, and Africa. LATAM—Latin America. APAC—Asia-Pacific. Source: S&P Global Ratings (as of Sept. 23, 2022).

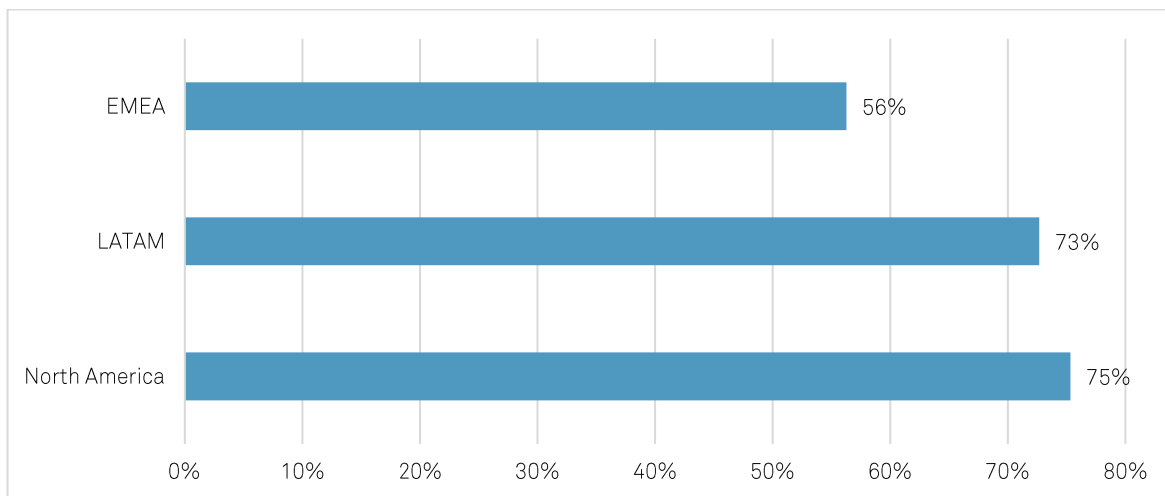
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Volume-Exposed Project Finance Roads

Using cash flow available for debt service (CFADS) margins (a CFADS/revenue proxy to EBITDA margins) to reflect the profitability of volume-exposed toll roads, each region has specific trends.

Chart 15

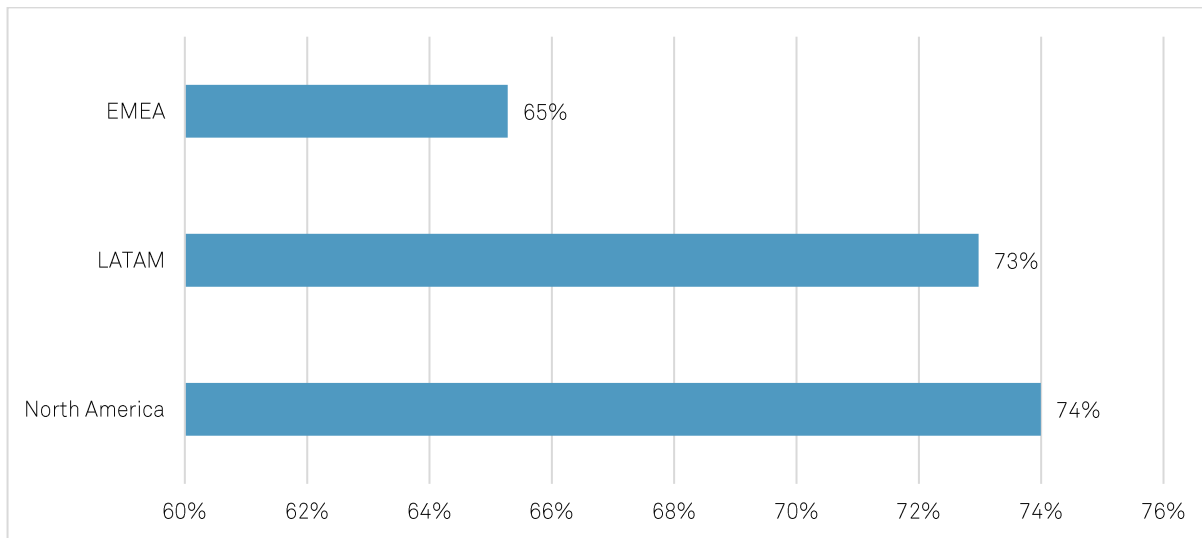
2019 Median CFADS Margin



EMEA—Europe, the Middle East, and Africa. LATAM—Latin America. CFADS—Cash flow available for debt service. Source: S&P Global Ratings (as of Sept. 23, 2022).

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Chart 18

2018-2019 Median CFADS Margin

EMEA—Europe, the Middle East, and Africa. LATAM—Latin America. CFADS—Cash flow available for debt service. Source: S&P Global Ratings (as of Sept. 23, 2022).

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EMEA stands out because the number of volume exposed transactions rated in EMEA is very limited as the bulk of the rated portfolio, particularly in the UK, benefits from availability fee payments. Lower margins on volume exposed projects mainly reflect weaker-than-expected traffic. This is reflected in sub-investment grade underlying ratings, although some transactions benefit from monoline insurer guarantees, which result in high investment grade ratings, but we do not incorporate this in our analysis.

Portfolio Overview

Detail for each of our ratings and outlooks on toll road credits as of Sept. 23, 2022.

Table 2

S&P Global Ratings' Portfolio Of Project Finance Toll Road Transactions

Entity	Region	Rating and outlook (SPUR ratings <i>italicized</i>)	Commercial operations/earliest rating date	Entity summary	OPBA	Most recent forecast min. DSCR
407 East Development Group G.P.	North America	A-/Stable	Nov. 2019	The project was selected for an extension of Toronto-based Highway 407 under a design, build, finance, operate, and maintain mandate with the Ontario Infrastructure and Lands Corp. (representing the Province of Ontario as off-taker). The project was substantially completed in June 2016. It mainly consists of a 20.3-kilometer (km), four- to six-lane divided expressway (the main line) and 10 km, four-lane divided expressway connecting the main line to Highway 401, and 5 km realignment of Highway 401. The major structures include 11 interchanges, 31 water crossings, and 16 road crossings.	1	1.20x

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407 International Inc.	North America	A/Stable	Aug. 2001	Toronto-based 407 International owns 100% of 407 ETR Concession Co. Ltd., which holds a 99-year lease to operate and maintain Highway 407. The highway is the world's first all-electronic, open-access long toll highway, running 108 km just north and west of Toronto through some of the city's more congested areas. The highway consists of six-, eight-, and 10-lanesections (expandable to eight and 10 lanes in certain sections). The highway system provides congestion relief to the Greater Toronto Area road network, attracting motorists willing to pay a toll away from busy toll-free alternate routes.	3	1.46x
95 Express Lanes LLC	North America	BBB-/Positive	Dec. 2014	95 Express Lanes operates and maintains about 40 miles of reversible managed lanes in the median of portions of I-95's general-purpose lanes in northern Virginia from Stafford County to Fairfax County. They serve Washington, D.C., and its suburbs under a 73-year concession with the Virginia Department of Transportation (VDOT). 95 Express Lanes opened to traffic in December 2014 and is 50% owned by Transurban Group, 25% by Australian Super, 15% by Canada Pension Plan Investment Board, and 10% by UniSuper. Before the COVID-19 pandemic, the project outperformed our base-case financial forecast for toll revenue and exceeded the sponsor's 2012 and 2016 traffic study forecast. The I-395 reversible managed lanes opened in fall 2019, which extended the I-95 express lanes for 8 miles from its northern terminus near Edsall Road to Washington.	7	1.92x
Aberdeen Roads (Finance) plc	EMEA	A-/Positive	Feb. 2019	Aberdeen Roads (Finance) PLC on-lent the proceeds of the £544 million senior debt issuance to Aberdeen Roads Ltd. (ProjectCo). ProjectCo used the proceeds to finance the construction, operation, and maintenance of the Aberdeen Western Peripheral Route/Balmedie to Tippetty in northern Scotland. The road opened fully to traffic in February 2019 and provides an alternative route from north to south Aberdeen, bypassing the city and improving journey times. It comprises approximately 55 km of new dual carriageway and a small new section added to A90 north of Aberdeen. ProjectCo operates under an availability-based project agreement with the Aberdeen City Council, acting as an agent for the Scottish Ministers (the contracting authority). The concession has a duration of about 33 years and expires in 2047. ProjectCo has subcontracted routine operations and maintenance obligations to Balfour Beatty Civil Engineering Ltd.	1	1.24x
Amey Roads NI Financial PLC	EMEA	BBB-/Stable	Nov. 2007	U.K.-based special purpose entity Amey Roads NI Financial PLC (the issuer) issued £141.06 million of index-linked secured bonds, due in 2037, and raised £121.06 million of index-linked loan facilities from the European Investment Bank, due in 2035. The issuer on-lent the funds to Amey Roads NI Ltd. (ProjectCo; ARN, formerly Amey Lagan Roads Ltd.), which used the proceeds to finance the design, construction, and operation of four complementary highway improvement schemes to the west of Belfast, Northern Ireland. The schemes comprised the construction of about 38 km of new roads together with the operation and maintenance of approximately 87 km of existing roads.	2	1.14x
APP Coatzacoalcos Villahermosa S.A.P.I de C.V.	Latin America	mxBBB+/Stable	2017	APP Coatzacoalcos Villahermosa S.A.P.I. de C.V. is a Mexican consortium made up of Mota-Engil Mexico, Calzada Construcciones, Construcciones and Dragados del Sureste, and Constructora y Promotora	2	1.20x

Malibrán. In 2016, it was awarded a 10-year public-private partnership contract by the Transportation Ministry for the maintenance, overhaul and financing of 134 km of the Coatzacoalcos-Villahermosa section of Federal Highway 180 and construction work extended from late 2016 through completion in late 2019.

Autopista del Sol Concesionaria Espanola, S.A.	EMEA	BB+/Positive	1999, 2002	Autopista del Sol Concesionaria Espanola S.A. (AUSOL), a limited-purpose entity, issued a €467 million fixed-rate senior secured bond and €40 million in senior secured notes, both due Dec. 30, 2045. AUSOL used the proceeds to refinance the debt incurred for the construction, operation, and maintenance of a 96 km section of tolled motorway southern Spain between Málaga and Guadiaro in the region of Andalucía. Part of the toll road has been operational since 1999 (75 km section known as AUSOL I) and part since 2002 (21 km section known as AUSOL II). AUSOL services its debt via the toll charged to users.	5	1.28x
Autopistas Metropolitanas de Puerto Rico LLC	North America	BBB-/Stable	1972	Autopistas Metropolitanas consists of the 52-mile PR-22 and two-mile PR-5 toll highways, a network of flat roads, 127 simple bridges, and seven toll plazas serving the largely urbanized northeastern and northwestern regions of Puerto Rico near its capital, San Juan. PR-22 and PR-5 began operating in 1972, and the project was awarded a long-term public-private partnership concession in 2011. The toll road runs along the northern coast of Puerto Rico, from San Juan to Hatillo. Passenger cars make up 96% of traffic, reflecting their importance to commuters in the San Juan metropolitan area. PR-5 is a two-mile toll road running south from San Juan to Bayamon, a key business area. Autopistas Metropolitanas operates under a 50-year term concession agreement granted by the Puerto Rico Highway and Transportation Authority. Autopistas Metropolitanas is exposed to traffic volumes, and the project is allowed to increase toll rates annually up to the maximum allowed under the concession terms (considering a rounding mechanism), U.S. Consumer Price Index plus 1.5% through 2061.	5	1.55x
Autovia de la Mancha, S.A.	EMEA	BB+/Negative	July 2005	Spain-based AuMancha issued a €110 million senior secured amortizing loan due July 31, 2031, to finance the design, construction, and operation of a 52 km shadow toll road linking Toledo and Consuegra in Castile-La-Mancha (CLM), south of Madrid, through April 2033. Construction of the road was completed in July 2005, and the project has been operating smoothly since that date. All revenue received in the project is paid by the granting authority and sole off-taker, the government of CLM, which constitutes an irreplaceable counterparty.	3	1.35x
Capital City Link G.P.	North America	A-/Stable	Oct. 2016	Capital City Link General Partnership (CCLGP) entered into an agreement with the province Alberta (A/Stable/A-1) to design, build, finance, operate, and maintain the northeast section of Anthony Henday Drive, an 80 km highway that provides free-flow travel around Edmonton. The northeast section of the ring road is bound by Manning Drive on the north and Whitemud Drive on the south. The project bundles approximately 27 km of a new six- and eight-lane divided freeway, nine interchanges, 10 flyovers, and 47 bridge structures.	2	1.25x

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Chinook Roads Partnership	North America	A-/Stable	March 2010	Chinook Roads Partnership is an availability-based road project, established to design, build, maintain, operate, and rehabilitate the Southeast Stoney Trail (the asset) in Calgary. The asset consists of a 25 km, six-lane divided freeway, with basic and auxiliary lanes, nine interchanges, three flyovers, and additional pre-grading for future interchanges. The project commenced in March 2010 and achieved traffic availability in November 2013. It is responsible for carrying out life cycle services and has subcontracted operations and maintenance (O&M) services to Chinook Highway Operations Inc., which has further subcontracted them to Mainroad Chinook Contracting L.P.	2	1.22x
Concesionaria Autopista Perote-Xalapa, S.A. de C.V. (subordinate only)	Latin America	mxA-/Stable	2012	The project (COPEXA) has a senior credit facility (not rated) and a subordinate debt issuance, and debt service is paid by the traffic volume exposed cash flows coming from the highway Perote-Banderilla and the bypass Libramiento de Xalapa. Both toll roads started operating in 2012, in July and November respectively. Both, the Banderilla-Perote and Libramiento de Xalapa toll roads are part of the logistic corridor Valle de Mexico-Puerto de Veracruz.	6	1.10x
Concesionaria Mexiquense S.A. de C.V.	Latin America	BBB/Stable; mxAAA/Stable	2011	Mexico-based Concesionaria Mexiquense S.A. de C.V. (Conmex) holds the concession to operate Circuito Exterior Mexiquense (CEM) toll road. On Feb. 25, 2003, the Mexico government granted the concession to construct, operate, and maintain the state's Eastern Highway System, known as CEM to Conmex. The concession contract expires on Dec. 31, 2051. Toll road operations began in April 2011.	5	2.10x
ConnectPlus (M25)	EMEA	A-/Stable	2019	In July 2018, Connect Plus (M25) Issuer issued £892.6 million of senior secured fixed-rate bonds due March 31, 2039. The issuer on-lent the proceeds to the limited-purpose entity Connect Plus (M25) Ltd. (CP), primarily to refinance commercial loan facilities and to unwind interest rate hedges. CP was incorporated to design, finance, and implement significant improvement work on the M25 motorway, the main ring road around London, extending for more than 400 km. It operates the network under an availability-based private finance initiative concession awarded in 2009 and expiring in September 2039.	3	1.50x
CountyRoute (A130) PLC	EMEA	B/Stable	2003	Special-purpose vehicle CountyRoute used the proceeds of the senior and junior debt it issued in 2004 to refinance debt taken to design, build, finance, and operate the 15-kilometer A130 bypass that runs from Chelmsford to Basildon in southeast England under a 30-year concession agreement with the Essex County Council (the Council). Construction was completed in 2003. The operations and maintenance (O&M) services are carried out by Ringway Infrastructure Services (Ringway) under a back-to-back O&M services agreement. CountyRoute's revenue is shadow toll-based, with about 55% derived from traffic volume-linked payments, and the remaining 45%, from availability payments.	3	0.88x
DirectRoute (Limerick) Finance DAC	EMEA	BB-/Stable	July 2010	Ireland-based limited-purpose entity DirectRoute (Limerick) Finance on-lent the proceeds of its €244.3 million senior secured debt issuance to DirectRoute (Limerick) Ltd. (ProjectCo) to finance the design and construction of the Limerick tunnel and road project	5	0.67x

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in Ireland. ProjectCo is responsible for O&M of the tunnel under a 35-year public-private partnership agreement through to 2041, signed with the Irish government's executive agency, Transport Infrastructure Ireland (TII). The original concession counterparty, the National Roads Authority, merged with the Railway Procurement Agency to form TII in August 2015.

Elizabeth River Crossings Opco LLC	North America	BBB/Stable	July 2012, Sept. 2017	Elizabeth River Crossings Opco LLC (ERC) operates and maintains the Elizabeth River Tunnels Project under a 58-year concession with VDOT expiring in 2070. The tunnels, which run under the Elizabeth River, connect Portsmouth and Norfolk, Va. ERC took over operation of the Downtown and Midtown tunnels in July 2012 and completed its rehabilitations of the tunnels in August 2016 and September 2017, respectively. It also built a second, parallel two-lane Midtown Tunnel, which doubled its capacity, and extended the MLK Freeway portion of the project. ERC completed both of these in 2016. Tolling on the existing tunnels began on Feb. 1, 2014, while tolling on the new Midtown Tunnel began upon its substantial completion in late August 2016. Tolling on the MLK Freeway was eliminated.	6	1.35x
ENA Master Trust	Latin America	BBB/Negative	2020	ENA Master Trust (ENA) is a limited purpose entity that owns ENA Sur and ENA Este. ENA Sur operates a 19.8 km urban toll road in southern Panama City that connects the downtown area with the Tocumen International Airport. The concession expires in June 2048, one month after the debt's maturity. ENA Este operates a 10.2 km toll road in northern Panama City (formally known as Corredor Norte fase IIB). This toll road has been fully operational since 2015 and was designed as an extension of ENA Norte Trust (BB+/Negative) to connect the northern corridor to the southern corridor. ENA Este's concession ends in 2045.	8	2.40x
ENA Norte Trust	Latin America	BB+/Stable	Sept. 2012	ENA Norte has the concession to operate the Corredor Norte toll road in Panama City, composed of 33.4 km, named the Panama-Madden segment, and two branches, Villa Lucre (3.3 km) and Zárate (Brisas del Golf; 1.3 km). The project has been fully operational since May 2009, and the right to administer the asset will expire in 2029, or on the date the rated notes will be fully paid. In our base-case scenario, we expect this by mid-2027.	4	3.60x
Fideicomiso 1784 (Autopista Rio Verde y Libramiento La Piedad - Availability Tranche)	Latin America	mxAAA/ Stable	2014	The project holds the concession to operate the Rio Verde Road (public-private partnership and traffic risk) and La Piedad Bypass. The project benefits from an availability tranche given that the Secretary of Communication and Transportation will provide fixed payments based on availability and has an additional one exposed to traffic risk.	3	1.30x
Fideicomiso 1784 (Autopista Rio Verde y Libramiento La Piedad - Volume Tranche)	Latin America	mxA+/Positive	2014	The project holds the concession to operate the Rio Verde Road (public-private partnership and traffic risk) and La Piedad Bypass. The project benefits from an availability tranche given that the Secretary of Communication and Transportation will provide fixed payments based on availability and has an additional one exposed to traffic risk.	6	2.20x
Granvia a.s.	EMEA	BBB+/Stable	2013	In 2013, the Slovakia-based special-purpose entity (ProjectCo) issued €1.24 billion of fixed-rate senior secured bonds due in September 2039. The debt	2	1.15x

proceeds refinanced the senior secured loan incurred by ProjectCo in relation to its 30-year concession with The Ministry of Transport, Construction, and Regional Development (the Authority) to design, build, operate, and manage 51.6 km of the R1 Expressway, in the southwest of Slovakia. Under the concession, ProjectCo receives availability-based revenue, and therefore it is not subject to market risk. The project consists of 84 bridge structures with a total length of approximately 6.8 km (the longest being almost 1.2 km), 10 interchanges, approximately 33 km of noise barriers, two O&M centers, and two service areas.

Highway Management (City) Finance PLC	EMEA	BBB/Stable	2010	The U.K.-based special purpose entity (the issuer) issued £61.7 million index-linked senior secured bonds due Feb. 27, 2036, and raised a £61.4 million index-linked European Investment Bank loan due Feb. 28, 2034. The issuer on-lent the funds to Highway Management (City) Ltd. (ProjectCo), a limited-purpose entity, which used the proceeds to finance the design, construction, and operation of four complementary highway improvement schemes for the M1 (Westlink) motorway in Belfast, Northern Ireland. ProjectCo operates under a 30-year availability-based project agreement with the Department for Infrastructure that expires in 2036.	2	1.16x
ITR Concession Co. LLC	North America	BBB/Stable	May 2015	ITR Concession Co. LLC operates and maintains the Indiana Toll Road under a 75-year (61 years remaining) concession and lease agreement with the Indiana Finance Authority. The road is a 157-mile toll road that links the Chicago Skyway in the west to the Ohio Turnpike in the east. It has 20 toll plazas and eight travel plazas. The project self-performs all maintenance and relies solely on toll revenues to service debt and pay maintenance costs. In May 2015, IFM Global Infrastructure Fund acquired the toll road, which had filed for Chapter 11 bankruptcy protection in September 2014. Subsequently, IFM sold a 15% equity interest in the project to U.S. pension fund CalPERS (10%), U.S. insurer Allstate (about 2%), and CBUS Super, an Australian superannuation fund for the construction industry (about 3%).	3	1.31x
Kiewit Meridiam Partners LLC	North America	A-/Stable	Under Construction	Kiewit Meridiam Partners LLC (KMP) was established to redesign and expand a 10-mile section of Interstate 70, a highway running through central Denver, and operate and maintain it under a public-private partnership. KMP is 60% owned by Meridiam and 40% by Kiewit. The concession grantors are the Colorado Bridge and Tunnel Enterprise and Colorado High-Performance Transportation Enterprise. Each is a government-owned business within the Colorado Department of Transportation.	2	1.22x
Libramiento Plan del Rio (subordinate only)	Latin America	mxB+/Stable	2004	The Rio Plan Libramiento is a 12.97 km road in the center of the state of Veracruz, Mexico, in the municipality of Emiliano Zapata. It forms part of the Altiplano Corridor and joins a four-lane highway, two for each direction, between Xalapa and Port of Veracruz. The project was awarded a concession to operate this toll road by the State of Veracruz.	5	3.00x
Libramiento de Matehuala	Latin America	BBB/Stable; mxAAA/Stable	Nov. 2004	Concesiones Omega S.A. de C.V. (Omega), a Mexican infrastructure developing company, holds a 30-year concession to operate and maintain Libramiento de Matehuala, a bypass toll road in Mexico's main freight transportation corridor, the México-Nuevo	5	1.10x

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Laredo Corridor, in the state of San Luis Potosí. The bypass is 14.2 km and part of the San Luis Potosí-Salttillo highway. Construction of the toll road started in October 2003, and it started operating in November 2004.

Northwestconnect G.P.	North America	BBB/Stable	Nov. 2011	Northwestconnect General Partnership (NWC) entered into a project agreement with Alberta Transportation to design, build, maintain, and operate the northwest section of Anthony Henday Drive, an 80 km highway that provides free-flow travel around Edmonton. The northwest section of the ring road is bounded by Yellowhead Trail on the west and Manning Drive Freeway on the north. It includes 21 km of mainline freeway with three lanes each direction from Yellowhead Trail to Campbell Road and two lanes each way from Campbell Road to Manning Drive, eight interchanges, five flyovers, and two rail crossings, for a total of 27 bridge structures. NWC opened to traffic in November 2011, beginning its 30-year operating period.	2	1.10x
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Nouvelle Autoroute 30 S.E.N.C.	North America	BBB+/Negative	2012	Nouvelle Autoroute 30 S.E.N.C. (A30 Express) operates and maintains 42 km of greenfield development (including the 2 km tolled Serge Marcil bridge) completed in 2012 to relieve congestion and improve access, and another 32 km of highway on Montreal's south shore under a 34-year concession agreement (23.5 years remaining) with the Transports Québec through the end of 2042. A30 Express is a four-lane divided highway that provides an east-west route parallel to southern Montreal Island and a north-south tolled link crossing the St. Lawrence River between Beauharnois-Salaberry and Vaudreuil-Soulanges.	4	1.25x
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Ostregion Investmentgesellschaft Nr. 1 S.A	EMEA	BB-/Stable	Jan. 2010	Ostregion Investmentgesellschaft Nr. 1 S.A. (the issuer), an Austria-based special-purpose vehicle, issued €775 million of senior secured bonds and loans to design and build a 52 km stretch of motorway north of Vienna under a 33-year public-private partnership concession with the Austrian Roads Agency, Autobahnen-und Schnellstrassen-Finanzierungs-AG (ASFINAG, AA+/Positive/A-1+) expiring in 2039. The issuer on-lent the proceeds to Bonaventura Infrastruktur GmbH (ProjectCo), the project concessionaire. Since the construction work was completed in January 2010, the latter operates and maintains the road. O&M have been subcontracted to Bonaventura Services GmbH. ProjectCo is compensated by ASFINAG in availability and shadow tolls payments.	2	1.01x
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Periferico del Area Metropolitana de Monterrey	Latin America	mxAAA/Stable	2014	The Periferico del Area Metropolitana de Monterrey (PAMM) is a 69.5 km toll road in the Mexican state of Nuevo Leon that has been operating for more than 20 years and belongs to the Mexico-Nuevo Laredo corridor. PAMM facilitates the connection of several industrial zones and crosses Santa Catarina, García General Escobedo, Apodaca, Juárez, Cadereyta-Jiménez, and Allende. It runs from the free highway Monterrey-Salttillo and ends at the junction with the Monterrey-Cadereyta Highway.	5	4.06x
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PrivateProject	North America	BBB-/Stable				1.43x
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Red de Carreteras de Occidente, S.A.B. de C.V.	Latin America	BBB/Stable; mxAAA/Stable	2012	Red de Carreteras de Occidente, S.A.B. de C.V. operates four toll roads under the FARAC I concession that generate revenue through the collection of tolls. Together, the roads cover approximately 610 km, which connect Mexico's two largest metropolitan areas by population, Mexico City and Guadalajara, among other rapidly developing cities in the western part of the country. Additionally, RCO operates two federal toll-free roads (COVIQSA and CONIPSA), for which the project receives availability and shadow payments from the federal government.	4	1.40x
Rutas de Lima S.A.C	Latin America	BB-/Stable	2013	RdL has a 30-year concession agreement with Lima, Peru, to operate and execute mandatory and complementary construction and maintenance works along the three main road access points into the municipality. The concession includes about 115 km of road infrastructure on an aggregate basis: 95.3 km of which are brownfield highways and 19.3 km are greenfield. RdL's road network is divided into three sections: Panamerica Norte (31.5 km), Panamerica Sur (54.1 km)—the main access roads to Lima from the north and south—and Ramiro Prialé, the access road to the city from the east (9.7 km of an existing road and 19.3 km of new construction).	5	1.23x
Scot Roads Partnership Finance Ltd.	EMEA	A/Stable	June 2017	U.K.-based special-purpose entity, Scot Roads Partnership Finance Ltd. (the issuer) lent the proceeds of the bond issuance and the European Investment Bank loan to Scot Roads Partnership Project Ltd. (ProjectCo). ProjectCo used the proceeds to finance the design, construction, and operation of roads forming part of the M8, M73, and M74 motorway network in central Scotland. M8 is the main motorway link between Glasgow and Edinburgh. ProjectCo operates under a 33-year availability-based concession with Scottish Ministers (the authority) that expires in March 2047. ProjectCo is required to carry out the day-to-day O&M and major maintenance (life cycle) of the assets throughout the life of the project, a responsibility that it passes down to Amey LG Ltd. under a back-to-back O&M contract. The 37 km of project roads comprise approximately 25 km of newly built roads and 12 km of existing older roads.	1	1.22x
Private Project	North America	BBB+/Stable				1.49x
Sociedad Concesionaria Autopista Central S.A.	Latin America	A-/Stable	2004	The consortium of ACS Dragados, Skanska, Sade, Belfi, and Brotec was awarded the concession for the North-South urban toll road system in Santiago, Chile, in August 2000. Revenues are volume-based. Autopista Central is part of a system of four tolled urban motorways in Santiago. The Autopista Central concession consists of two major urban roads crossing Santiago from north to south. One is the continuation of Route 5, the Pan-American Highway, running through Chile and passing close to Santiago's city center. The second road is Avenida General Velásquez, providing complementary capacity parallel to Route 5 further to the west. In total, Autopista Central provides 60 km of high-speed urban motorways (40 km for Route 5 and 20 km for General Velásquez).	4	1.90x

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Sociedad Concesionaria Autovía de la Plata S.A.	EMEA	A/Stable	Dec. 2012	Spain-based Sociedad Concesionaria Autovía de la Plata S.A. (AutPlata or ProjectCo) financed the construction, operation, and maintenance of a 49 km section of A-66 motorway between Benavente and Zamora, in the northwest of Spain. On Dec. 14, 2012, AutPlata entered into an availability-based concession with the awarding authority, the Spanish Ministry of Public Works, an arm of Spain's central government, for a 30-year term expiring in 2042. Construction started in July 2013 and was completed in May 2015.	1	1.37x
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Sociedad Concesionaria Costanera Norte S.A.	Latin America	A/Stable	2003	Costanera Norte is part of a system of four tolled urban motorways in Santiago. The Chilean Ministry of Public Works has awarded these concessions as part of an overall plan for enhancing the capacity and level of service of key corridors. The project consists of a 30.4 km, six-lane urban toll highway on the north side of the Mapocho River, running from east to west through Santiago. The highway is the main east-west corridor through Santiago and has a free-flow toll collection system. The existing 7.4 km Avenida Kennedy to the southeast of the route is also part of the concession. The concession has been extended 4.5 km beyond the original western terminus at the intersection with Avenida Vespucio to Route 68. The total length of the concession highway is 42.3 km.	4	2.90x
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Sociedad Concesionaria Vial Montes de María S.A.S.	Latin America	AA/Stable	2021	The project has a concession to design, construct, rehabilitate, operate and maintain the Puerta de Hierro-Palmar de Varela toll road in Colombia. The project includes 197 km of existing roadway and 5 km of new construction. The concession runs to 2045.	4	1.20x
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Toll Road Investors Partnership II LP	North America	BB/Negative	Sept. 1995	Virginia-based TRIP II owns and operates a 14-mile limited-access toll road (Dulles Greenway) under a Certificate of Authority issued by the Virginia State Corp. (SCC) Commission and a comprehensive agreement with VDOT. Dulles Greenway connects Washington Dulles International Airport (at the terminus of the Dulles Toll Road) with Leesburg, Va. The road opened for operations in September 1995 and is 100% volume exposed.	3	0.82x
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Transjamaican Highway Ltd.	Latin America	B+/Stable	2020	In 2001, the Jamaican government granted through the National Road Operating and Constructing Company (NROCC) a 35-year concession contract to design, construct, operate, and maintain the Highway 2000 East-West. The concession was granted to a private consortium that consisted of Bouygues Travaux Publics, Vinci Concessions, International Finance Corp., and Societe de Promotion et de Participacion pour la Cooperation Economique (Proparco) between 2011 and 2019. The toll road is the only high-speed roadway connecting Jamaica's capital city, Kingston, and its greater metropolitan area. It runs for 50 km with four toll plazas. Different sections opened in 2003,2006, and 2012. Revenues are volume-based.	6	2.08x
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Private Project	North America	A/Stable				1.21x
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Private Project	North America	BBB/Stable				1.28x
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Verdun Participation 2 S.A.	EMEA	BBB-/Negative	2004	Verdun Participation 2 S.A. (VP2) is the 100% owner of Compagnie Eiffage du Viaduc de Millau, which holds the concession for the Millau viaduct in Southern France until 2079. The asset, Millau Viaduct is a 2.5 km, seven-span, cable-stayed road bridge built to enable traffic traveling on the north-south axis A75 motorway. It is the tallest bridge in the world, with one mast's summit 343 meters above the base. The viaduct has been open since 2004. Project revenues are volume-based. VP2's ultimate shareholder is French construction and concession group Eiffage S.A. with a 51% stake, and French government-related financial institution Caisse des Dépôts et Consignations (CDC) with a 49% stake.	4	1.19x
Westconnex Finance Company Pty Ltd.	APAC (excl. China)	BBB+/Stable	2021	WestConnex (WCX) is a tolled motorway in metropolitan Sydney, comprising six roads under three separate concessions forming a connected road network. WestConnex Finance Co. Pty Ltd. is the financing arm of WCX.	3	1.88x

SPUR—S&P Underlying Ratings. DSCR—Debt service coverage ratio.

Table 3

S&P Global Ratings' Portfolio Of Corporate Toll Road Transactions

Entity	Region	Rating and outlook	Earliest rating date	Entity summary	Business risk	2019 debt/EBITDA ratio
AB Concessoes S.A.	Latin America	brAA+/Positive	2013	AB Concessões S.A. (AB) operates toll road concessions in Brazil—two in the state of São Paulo and one in the state of Minas Gerais. Atlantia owns 50% plus one share of the group controlling shares.	Fair	2.3x
Abertis Infraestructuras S.A.	EMEA	BBB-/Stable	Sept. 2004	Abertis is a Spain-based holding company operating a more than 9,000 km of toll road network across 16 countries in Europe, the Americas, and Asia. Abertis is the No. 1 toll road operator in Spain and No. 3 in France, through its fully owned subsidiaries HIT and Sanef. In Latin America, Abertis has operations in Brazil, Chile, Mexico, Puerto Rico, and Argentina. The company is part of Italian global infrastructure group Atlantia, which acquired 50% plus one share of Abertis in October 2018. The remainder is owned by ACS (30%) and its subsidiary Hochtief (20%).	Strong	5.7x
APRR S.A.	EMEA	A-/Stable	2017	APRR is the second-largest rated toll road operator in France in terms of scale, after Autoroutes du Sud de la France S.A., and the fourth-largest in Europe. The company's network includes 2,318 km of toll roads, under concessions to APRR and its subsidiary, AREA. APRR's main contract, covering 1,890 km, expires in 2035, while the 428 km AREA concession expires in 2036. From 2022, APRR will also include RCEA, an 88 km, 48-year concession situated in proximity of its perimeter.	Excellent	4.2x
Arteris S.A.	Latin America	brAAA/Stable	2014	Arteris is one of the largest Brazilian companies operating toll roads in Brazil, with two state concessions in Sao Paulo and five federal concessions in the states of Rio de Janeiro, Sao Paulo, Minas Gerais, Parana, and Santa Catarina, totaling 3,200 km administered. Its highways are interconnected and concentrated in the southeastern and southern regions of the country, forming important corridors between large urban centers such as São Paulo, Belo Horizonte, Curitiba and Florianópolis. They also serve as routes to	Satisfactory	3.8x

Mercosur trade partners. Arteris is a joint venture of Abertis and Brookfield.

Atlantia SpA	EMEA	BB+/Stable	April 2001	Atlantia is the Italy-based holding company of a global infrastructure network, with €6.4 billion consolidated reported revenues in 2021. The company disposed of its 88% stake in Italian toll road operator ASPI (about 32% of total EBITDA in 2019), as part of a settlement finalized with the grantor on May 5, 2022, following the collapse of the Genoa bridge on Aug. 14, 2018. Atlantia holds 50% plus one share of toll road operator Abertis (about 80% of total EBITDA in 2021 under Atlantia's consolidated reported figures), which operates about 9,000 km of toll roads globally; 99.4% of Italian airport operator AdR (about 6% of total EBITDA in 2021); overseas motorways in Brazil and Chile (both 50% plus one share owned) and Poland (61.2% owned); Groups Aéroports de la Côte d'Azur (ACA) in France; and 51% of Telepass. Pending visibility on the acceptance of the tender offer launched, Atlantia is a listed company (53% free float), approximately 33% owned by Sintonia (Edizione), while other stakes are held by Singapore's sovereign wealth fund GIC (8.29%) and Fondazione Cassa di Risparmio di Torino (about 4.5%).	Satisfactory	5.1x
Autoban - Concessionaria do Sistema Anhanguera Bandeirantes S.A.	Latin America	brAAA/Stable	2008	Concessionária do Sistema Anhanguera-Bandeirantes S.A. operates and manages Anhanguera-Bandeirantes road system in São Paulo. It is a subsidiary of CCR S.A.	No SACP	N/A
Autopista Fernao Dias S.A.	Latin America	brAAA/Stable	2014	Autopista Fernão Dias S.A. engages in the operation, administration, maintenance, improvement, and expansion of a highway under the concession agreement in Brazil. It operates BR-381 highway that connects Belo Horizonte/MG and São Paulo/SP. The company was founded in 2007 and is headquartered in Pouso Alegre. Autopista Fernão Dias S.A. is a subsidiary of Arteris S.A.	No SACP	N/A
Autopista Planalto Sul S/A.	Latin America	brAAA/Stable	2014	Autopista Planalto Sul S.A. operates BR-116 highway between Santa Catarina and Rio Grande do Sul. It is a subsidiary of Arteris S.A.	No SACP	N/A
Autopista Régis Bittencourt S.A.	Latin America	brAAA/Stable	2014	Autopista Régis Bittencourt S.A. operates a highway in Brazil. It is a subsidiary of Arteris S.A.	No SACP	N/A
Autoroutes du Sud de la France S.A.	EMEA	A-/Stable	Feb. 2002	ASF is the largest operator of toll roads in France, as measured by km of road area in operation. It is also the second-largest toll road operator in Europe, behind Italy's Autostrade per l'Italia SpA, and No. 3 worldwide. The company operates a network of 3,200 km of toll roads under two concession contracts. The main ASF contract covering 2,730 km expires in April 2036, while the 471 km Escota contract expires in February 2032. Together, these correspond to roughly one-third of the French toll roads.	Excellent	3.2x
Autostrade per l'Italia SpA	EMEA	BBB-/Stable	Oct. 2008	ASPI is headquartered in Rome and operates one of the largest toll road networks in Europe (2,855 km, representing about 50% of the total Italian network), under a concession until December 2038. In addition, the company owns stakes in several other smaller Italian motorway concessionaires and provides engineering, research and designing, and administrative services.	Satisfactory	3.8x

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CCR S.A.	Latin America	brAAA/Stable	2005	CCR S.A. manages roads concessions covering a total of 3,698 km in Brazil. It also operates mass transit in Rio de Janeiro, São Paulo, and Bahia, and airports.	Satisfactory	2.7x
Cofiroute	EMEA	A-/Stable	June 1996	Cofiroute is the fifth-largest rated toll road network operator in Europe after Italy-based Autostrade per l'Italia SpA, Spain-based Abertis Infraestructuras S.A., France-based sister company ASF, and France-based APRR S.A. The company operates a network of 1,111 km of toll roads under two concession contracts. The main intercity network contract, covering 1,100 km, expires in 2034, while the 11 km Duplex A86 contract expires in 2086.	Excellent	3.2x
Concessionaria Auto Raposo Tavares S.A.	Latin America	brAA+/Stable	2012	Concessionária Auto Raposo Tavares S.A. operates the Raposo Tavares highway system in Sao Paulo.	Fair	6.1
Concessionaria da Rodovia MG-050 S.A.	Latin America	brAAA/Positive	2021	Concessionária da Rodovia MG-050 S.A. engages in the operation, expansion, improvement, and maintenance of highway MG-050 highway. It is a subsidiary of AB Concessões S.A.	No SACP	N/A
Concessionaria da Rodovia Presidente Dutra S.A.	Latin America	brAAA/Stable	2012	Concessionária da Rodovia Presidente Dutra S.A. operates the 402 km Presidente Dutra highway that connects Rio de Janeiro and São Paulo metropolitan regions. It is a subsidiary of CCR S.A.	No SACP	N/A
Concessionaria Ecovias dos Imigrantes S.A.	Latin America	brAAA/Stable	2011	Concessionária Ecovias dos Imigrantes S.A. is a subsidiary of Ecorodovias Concessões e Serviços S.A.	No SACP	N/A
Družba za avtoceste v Republiki Sloveniji d. d. (DARS d.d.)	EMEA	A+/Stable	2019	DARS, a publicly owned company, is the sole operator of the motorway network in Slovenia. Established in 1993 and operating since Jan. 1, 1994, DARS has 623.3 km of motorways and expressways in operation and under maintenance and is of prime importance to the Slovenian economy. DARS is responsible for operating, constructing, and maintaining Slovenia's motorway network. The company fulfils these tasks under a concession contract with the government due in 2060. Under the concession, DARS is entitled to the revenues generated from the motorway network, mainly the tolls it collects.	Strong	4.6x
Ecorodovias Concessoes e Servicos S.A.	Latin America	brAAA/Stable	2011	Ecorodovias Concessões e Serviços S.A., through its subsidiaries, operates highway concessions in Brazil. It is a subsidiary of Ecorodovias Infraestrutura e Logística S.A.	Satisfactory	3.3x
Gansu Provincial Highway Aviation Tourism Investment Group Co. Ltd.	China	BBB+/Stable	Nov. 2016	Gansu Highway is a provincial highway investing and operating platform in Gansu province. As of year-end 2021, the company operates about 4,900 km of toll roads. It also owns and maintains 5,000 km of toll-free secondary roads. Gansu Highway's operating profits are dominated by its toll road related segments. Other businesses, including trading (sizable by revenue), tourism-related services, and financial services, are relatively small by profit and asset base. Gansu Highway is wholly owned by the Gansu provincial government through the provincial state-owned Assets Supervision and Administration Commission.	Satisfactory	37.2x
Guangdong Provincial Communications Group Co. Ltd.	China	A/Stable	Dec. 2021	Guangdong Communications is the largest state-owned enterprise and the only provincial franchise toll road investment platform in Guangdong. As of December 2021, the company is mandated by the provincial government to invest in, develop, and operate franchise toll roads and manage	Strong	N/A

government toll roads owned by Nan Yue in Guangdong totaling about 820,000 km. These toll roads account for 71% of the toll road mileage in the province and contribute most of the company's profits. The company also engages in ancillary businesses including material sales, expressway service zones, and engineering technology. The company is wholly owned by the Guangdong provincial government.

Holding d'Infrastructures de Transport S.A.S.	EMEA	BBB-/Stable	March 2006	HIT is the holding company of the French toll road operator Sanef, the third-largest toll road operator in France (1,785 km as of Dec. 31, 2021) behind Autoroutes du Sud de la France S.A. (3,200 km, fully owned by Vinci S.A.) and APRR S.A. (2,318 km, owned by Eiffarie, jointly controlled by Eiffage SA and Macquarie Autoroutes de France SAS). A consortium of investors set up HIT to acquire Sanef's shares following the tender offer by the French government. The sole shareholder of HIT is Abertis Infraestructuras following the progressive buyout of minority stakes in HIT in 2017.	Strong	N/A
Impulsora del Desarrollo y el Empleo en America Latina S.A.B. de C.V.	Latin America	BBB/Stable	2005	Impulsora del Desarrollo y el Empleo en América Latina, S.A.B. de C.V., through its subsidiaries, is involved in the construction, operation, and maintenance of road concessions; operation of wastewater treatment plants and multimodal terminals; parking operations; investment of financial instruments; provision of electronic toll collection system; and leasing of equipment in Mexico and Latin America. Impulsora was founded in 2005 and is headquartered in Mexico City.	Satisfactory	5.6x
Private Entity	China	A/Stable				
Private Entity	China	A/Stable				
Korea Expressway Corp.	APAC (excl. China)	AA/Stable	March 2003	Korea Expressway Corp. develops, operates, and manages expressway network in the Republic of Korea and internationally. The company operates through four segments: toll business, incidental business, supporting business, and construction business. It constructs expressways, tunnels, and bridges; offers expressway maintenance services, such as routine and periodic maintenance, and emergency response, as well as road, facility, and structure rehabilitation; and real-time and three-dimensional road management services.	Excellent	9.6x
Rodovias das Colinas S.A.	Latin America	brAA+/Positive	2013	Rodovias das Colinas S.A. operates a highway of 307 km. It is a subsidiary of Atlantia Bertin Concessões S.A.	No SACP	N/A
Sanef S.A.	EMEA	BBB-/Stable	Sept. 2004	Sanef S.A. operates motorway concessions in France and is fully owned by Holding d'Infrastructures de Transport S.A.S. Sanef's main concession covers about 1,406 km of toll roads in the north and east of France that expires in December 2031. Sanef also has a concession to operate 379 km of toll roads in the northwest of France through its subsidiary SAPN (99.97% ownership) until August 2033. Overall, the network includes key French traffic routes, including five of seven access routes into Paris, links to other major surrounding cities (Strasbourg, Frankfurt, Brussels, and London), five major ports (Le Havre, Dunkerque, Calais, Rouen, and Boulogne-Sur-Mer), as well as the connections to the Eurotunnel terminal and Charles de Gaulle Airport.	Strong	4.1x

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Shenzhen Expressway Co. Ltd.	China	BBB/Stable	Sept. 2015	Shenzhen Expressway Co. Ltd. (SZE) principally engages in toll road development and operation, as well as related businesses such as management services and advertising. SZE is the major expressway operator in Shenzhen. As of end of June 2022, the company invested in 17 expressway projects with a total of 604 km on an equity-attributed basis (including 5.7 km under construction). In 2022, SZE acquired the Bay Area Development, which has 45% ownership in the Guangzhou-Shenzhen Superhighway and 50% in the Guangzhou-Zhuhai West Superhighway. In recent years, the company has progressively expanded into environmental-related businesses such as renewable energy and waste treatment. SZE had invested in wind power installation capacity of 648 megawatts and waste treatment designed capacity of over 6,000 tons/day (2,940.5 tons/day in operation) as of June 30, 2022. SZE is 51.6% owned by Shenzhen International Holdings (SZIH), which is in turn 43.5% ultimately owned by the Shenzhen State-owned Assets Supervision and Administration Commission (SASAC).	Satisfactory	3.5x
Shenzhen International Holdings Ltd.	China	BBB/Stable	April 2012	SZIH engages in toll road operation; investment, construction, and operation of logistics infrastructure facilities, third party logistics services and logistics information services; and environmental business, including waste treatment and renewable energy generation. In recent years, the company has started its property development business after the Shenzhen government granted commercial usage on its land in the Meilin Checkpoint project and Qianhai logistics parks. In 2021, about 72% of SZIH's revenue, 80% of recurring operating profit—toll road and environmental protection business—derived from listed subsidiary SZE. SZIH's own operations consist of the logistics park operation, port operation, and land redevelopment. As of the end of June 2022, the group operates 33 logistics projects with a total operation area of approximately 4 million square meters. SZIH is 43.48% indirectly held by (SASAC), the controlling shareholder.	Satisfactory	2.4x
Transurban Finance Co. Pty Ltd.	APAC (excl. China)	BBB+/Stable	April 2002	Transurban Finance Co. Pty Ltd operates as a corporate funding vehicle of the Transurban Group in Australia. The company was incorporated in 2001 and is based in Docklands. It is a subsidiary of Transurban Holdings Ltd.	Excellent	7.3x
Transurban Queensland Finance Pty Ltd.	APAC (excl. China)	BBB/Stable	March 2016	Transurban Queensland Finance Pty Ltd. provides finance for the acquisition, enhancement, and maintenance of infrastructure assets within the Transurban Queensland motorway network in Brisbane, Australia. The company was incorporated in 2014 and is based in Brisbane. It operates as a subsidiary of Transurban Queensland Invest Pty Ltd.	Excellent	9.7x
Triangulo do Sol Auto-Estradas S.A.	Latin America	brAA+/Positive	2013	Triângulo do Sol Auto-Estradas S/A operates a highway of 442 km in São Carlos, Araraquara, Catanduva, São José do Rio Preto, Mirassol, Sertãozinho, Borborema, Matão, and Bebedouro. It is a subsidiary of AB Concessões S.A.	No SACP	NA
Via Paulista S.A.	Latin America	brAAA/Stable	2017	Via Paulista S.A. operates as a subsidiary of Arteris S.A.	No SACP	NA
VINCI S.A.	EMEA	A-/Stable	April 2001	Vinci is a France-based group with activities spanning concessions, construction, and energy contracting services, and revenue totalling €49.4 billion in 2021 (€43.2 billion in 2020). It is the largest transport infrastructure player in Europe with a reported about €4.7 billion of EBITDA generated by	Strong	2.5x

its concessions arm in 2021. Vinci operates about 4,443 km of toll roads in France, including urban roads. Prior to the pandemic, it also handled more than 255 million airport passengers in over 45 airports globally. The concession division accounted for about 70% of group EBITDA in 2019, and we expect it to reduce that to 60% in 2022 due to increased exposure to energy contracting business following the COBRA-IS acquisition and the unprecedented hit from the pandemic on air traffic.

Private Entity	China	A/Stable				
Zhejiang Expressway Co. Ltd.	China	A/Stable	July 2021	Zhejiang Expressway Co. Ltd. is the primary toll-road subsidiary of Zhejiang Communications Investment Group Co. Ltd. The company owns about 1,200 km of toll roads in Zhejiang province in China. The company invests, develops, operates, maintains, and manages roads. Zhejiang Expressway also owns a controlling stake in Shanghai-listed Zhejiang Securities. Zhejiang Communications is its largest shareholder, with a 67% stake. It is the largest provincial state-owned enterprise and the sole transportation infrastructure investment platform in Zhejiang.	Strong	N/A

SACP—Stand-alone credit profile.

Table 4

S&P Global Ratings' Portfolio Of U.S. Public Finance Toll Road Transactions

Entity	Location	Rating and outlook	Opening date/founding date	Entity summary	Enterprise risk	Most current min. DSCR
Alligator Alley	FL	AA-/Stable	1969	Alligator Alley is a 78-mile tolled highway that runs across southern Florida, connecting the Naples area on the western coast to the Fort Lauderdale-Miami area on the eastern coast. As a facility designed for long-distance travel rather than commuting, the road's peak volume is on weekends. Truck traffic is 10% of facility traffic and 26% of revenue.	Strong	7.1x
Bay Area Toll Authority	CA	AA/Negative	1997	The Bay Area Toll Authority (BATA) was created by the California legislature to administer the auto tolls on the San Francisco Bay Area's seven state-owned toll bridges.	Extremely Strong	0.8x
Buffalo & Fort Erie Public Bridge Authority	NY	A+/Stable	1933	The Buffalo and Fort Erie Public Bridge Authority (also known as the Peace Bridge Authority and the Public Bridge Authority) is the agency established to regulate the Peace Bridge, which crosses the Canada-U.S. border. This bridge is designed to handle vehicle traffic between Buffalo in New York and Fort Erie, Ont.	Strong	2.3x
Central Florida Expressway Authority	FL	A+/Stable	2009	Net revenue of the CFX toll system secures the authority's toll road revenue bonds. The expressway system consists of several contiguous segments totalling 125 miles in the Orlando metropolitan statistical area. It connects the expanding residential areas east and west of the city to downtown. There are six limited-access expressways: the East-West Expressway, the Central Florida GreeneWay, The Beachline Expressway, the Western Beltway, the John Land Apopka Expressway, and the Poinciana Parkway.	Very Strong	1.8x
Central Texas Regional Mobility Authority	TX	A-/Positive	2002	CTRMA owns and operates a toll road system in the Austin, Texas, area that includes 183A phase I and II, 290 East, SH 71 East, SH 45 Southwest, 183 South, and 290E phase III, which are all operational; and 183A phase III and 183 North, which are starting construction and expected to be open for tolling in 2025 and 2026,	Strong	1.3x

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respectively. The system benefits from segments open and available to help support additional planned improvements. The authority has a record of completing roads to enhance and expand the system, providing additional diversity.

Central Texas Turnpike System	TX	A/Stable	2006	CTTS originally included three project elements: State Highway 45 North (SH45N), Loop 1, and State Highway 130 (SH130). SH130 is a 49-mile corridor paralleling Interstate Highway 35 (IH35). It extends from IH35 north of Georgetown to U.S. Highway 183 (US183) at State Highway 45 Southeast (SH45SE). SH45N is a 12.8-mile corridor connecting U.S. 183 with Loop 1, IH35, and SH130. Loop 1 is a four-mile extension connecting with SH45N. In addition, on Aug. 30, 2012, the commission added State Highway 45 Southeast (SH45SE), a 7-mile link connecting IH35 and the most southern part of SH130 segment 4. This added incremental toll revenue with no additional debt. Construction is underway to expand SH130 and to add a connection with U.S. Highway 290. CTTS is funding the SH130 expansion project as well as its portion of the U.S. 290 connector project with funds in its capital contribution account. The balance of the 290 project is being funded by the CTRMA.	Strong	0.5x
Chesapeake Bay Bridge & Tunnel District	VA	BBB/Stable	1964	The Chesapeake Bay Bridge and Tunnel is a four-lane, 20-mile vehicular toll crossing of the lower Chesapeake Bay (U.S. 13) via a combination of low-level trestles connected by two approximately 1-mile tunnels allowing maritime commerce to Chesapeake Bay and U.S. Navy vessels access to the Hampton Roads region and Naval Station Norfolk.	Strong	5.3x
Chesapeake Transportation System	VA	BBB+/Stable	(Under Construction)	CTS consists of the Chesapeake Expressway and the improved Dominion Boulevard.	Strong	1.6x
Delaware River & Bay Authority	DE	A/Stable	1962	The authority owns and operates the Delaware Memorial Bridge, Cape May-Lewes Ferry, and the Forts Ferry. It also operates five airports in New Jersey and Delaware, various food and retail services, and a business park in Carney's Point Township.	Strong	3.6x
Delaware River Joint Toll Bridge Commission	PA	A/Negative	1961	The system includes 20 bridges, of which eight are tolled, including the Scudder Falls Bridge. Of these, three carry vehicles on the federal interstate highway system: Interstates 78, 80, and 295. Of the 12 remaining non-tolled bridges, two are pedestrian-only.	Strong	2.4x
Delaware River Port Authority	PA	A+/Stable	1951	DRPA operates four bridges across the Delaware River: the Benjamin Franklin Bridge, Walt Whitman Bridge, Commodore Barry Bridge, and Betsy Ross Bridge. This bridge system is the authority's primary revenue source, with its net bridge revenues subsidizing the rapid transit system. DRPA also owns a rapid-transit system between Philadelphia and Lindenwold, N.J., known as the Port Authority Transit Corp., which the authority operates and maintains as a wholly owned subsidiary.	Very Strong	1.2x
E-470 Public Highway Authority	CO	A/Stable	1991	E-470 is a 47-mile beltway that runs along the eastern perimeter of the Denver metropolitan area, from state highway C-470 at Interstate 25 in Douglas County, south of Denver, to I-25 on the north end of the metropolitan area, just south of 160th Avenue.	Strong	2.x
Florida Turnpike Enterprise	FL	AA/Stable	2002	The turnpike system consists of several components. The principal one, the 320-mile Mainline (representing 69% of FTE's total gross toll revenues for fiscal 2019), runs north-south from Interstate 75 at Wildwood in Sumter County to Florida City in southern Miami-Dade County, with an east-west segment intersecting at Orlando in Orange County. The Mainline consists of five	Very Strong	2.2x

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subcomponents: the Homestead Extension of Florida's Turnpike, Southern Coin System, Ticket System, Northern Coin System, and Beachline West Expressway.

Foothill-Eastern CA Transportation Corridor Agency	CA	A/Stable	1997	Foothill-Eastern is a 36-mile, limited-access toll road system comprising three different highways: State Route 241, SR 261, and a portion of SR 133. The longest highway segment is SR 241, a 24-mile road extending southeast from SR 91 in Anaheim to Oso Parkway in Rancho Santa Margarita. SR 261 connects to SR 241 at Santiago Canyon Road and extends southward to Jamboree Road in Irvine. The toll road portion of SR 133 connects to SR 241 just north of the Tomato Springs toll plaza and ends just south of Interstate 5 in Irvine. SR 133 then continues southward to its terminus at the Pacific Coast Highway. F/ETCA owns and operates the toll collection and revenue management system on the road. The toll road itself is owned by the state department of transportation, which is responsible for maintenance and repairs of the toll road system. F/ETCA is a sister agency to the San Joaquin Hills Transportation Corridor Agency, which administers another toll facility in the county.	Strong	1.6x
Golden Gate Bridge Highway & Transportation District	CA	AA-/Negative	1928	The district operates the Golden Gate Bridge; bus service in Marin, San Francisco, and Sonoma counties; and ferry service between Marin and San Francisco counties. Its facilities and services provide the primary commuter artery into San Francisco from the counties to the north. The bridge is the district's primary revenue-producing asset.	Very Strong	2.x
Grand Parkway Transportation Corporation	TX	BBB+/Stable	2012	The Grand Parkway Transportation Corp. is a public, nonprofit corporation created on April 3, 2012, under Subchapters A-C of Chapter 431, Texas Transportation Code.	Strong	0.7x
Greater New Orleans Expressway Commission	LA	A/Stable	1954	GNOEC was created to operate and administer the expressway connecting St. Tammany and Jefferson parishes. A five-member board of commissioners governs GNOEC; four members (two from each parish) serve two-year terms and the fifth serves a one-year term. In addition to providing maintenance to the dual 24-mile causeways, GNOEC polices both the expressway and Huey Long Bridge. It also operates the 24-mile Lake Pontchartrain Causeway, which consists of two parallel one-way bridges connecting St. Tammany Parish on the north shore to Jefferson Parish, immediately west of New Orleans on the lake's south shore. We believe the causeway enjoys a strong competitive position for traffic between the two parishes. Alternate routes, including Interstate 10, are toll-free but require a significant detour around Lake Pontchartrain. Tolls are collected southbound only.	Strong	2.x
Harris County Toll Road Authority	TX	AA-/Negative	1983	Through its operating board, which comprises members of the Commissioner's Court, the authority may exercise—regarding toll road projects—the same power and authority as the commissioner's court. The authority was created solely to implement the county's toll road projects and does not have any responsibilities with respect to other county road projects.	Very Strong	0.4x
Hidalgo County Regional Mobility Authority	TX	BBB-/Stable	Nov. 2005	The Hidalgo County Regional Mobility Authority is an independent governmental agency pursuant with Chapter 370 of the Transportation Code.	Vulnerable	N/A
Illinois State Toll Highway Authority	IL	AA-/Stable	1958	The Illinois Tollway, governed by an 11-member board of directors, operates 294 miles of interstate tollways in 12 counties in northern Illinois, including the greater Chicago area. The system comprises five major routes: Tri-State Tollway (Interstates 294, 94, and 80), Jane	Very Strong	2.x

Addams Memorial Tollway (Interstate 90), Ronald Reagan Memorial Tollway (Interstate 88), Veterans Memorial Tollway (Interstate 355), and the recently opened Illinois Route 390. The Tri-State accounts for about 46% of system revenue and about 45% of system transactions, while the remaining three (not including Route 390) are about evenly split.

Kansas Turnpike Authority	KS	AA-/Stable	1956	KTA operates the 236-mile Kansas Turnpike, the only toll road in the state. The turnpike faces little competition from toll-free alternative routes and is an important economic link across the U.S. Midwest. The 41-mile eastern portion to Topeka is a section of U.S. Interstate 70. The rest extends from Topeka to the state's southern border, through Wichita, and includes an 82-mile portion of Interstate 35. The principal risks to turnpike demand, in our view, are economic cyclicalities, gasoline price shocks, and construction delays associated with the turnpike's preservation, modernization, and enhancement needs.	Very Strong	2.2x
Kentucky Public Transportation Infrastructure Authority	KY	BBB+/N.A.	2009	The Kentucky Public Transportation Infrastructure Authority is an independent de jure municipal corporation and political subdivision of the Commonwealth of Kentucky. The authority was established in 2009 by the Kentucky General Assembly with the passage of Kentucky Revised Statute Chapter 175B to review, approve, and monitor certain significant transportation projects within the commonwealth and between the commonwealth and Indiana, and if necessary, assist with the operation, financing, and management.	Strong	1.x
Laredo (Laredo Bridge)	TX	A+/Stable	1992	Laredo owns and operates the international bridge system and operates it as a separate enterprise. The system includes portions of four bridges within the U.S. and cross into Mexico. The city operates under a council-manager form of government, with a city council that includes the mayor and eight council members. The bridge director manages the system and reports directly to the city manager. Laredo's traffic safety committee and council must approve any changes to the system toll rates.	Very Strong	1.x
Lee County (bridge system)	FL	A+/Stable	1963	The Lee County Department of Transportation, which is responsible for all transportation and engineering in the county, operates and maintains the facilities. The facilities consist of the Sanibel Causeway, Cape Coral Bridge, and Midpoint Memorial Bridge. Commercial vehicle activity is limited, and 98% of toll-paying traffic consists of passenger vehicles. Although the bridge system's total net revenues secure the bonds, the county operates each bridge so that it is self-sufficient.	Strong	2.7x
Maine Turnpike Authority	ME	AA-/Stable	1941	Starting at the New Hampshire border, the turnpike is Maine's primary link to the rest of the U.S., extending 109 miles to the capital Augusta and serving the most populous southern and coastal regions between York and the largest city of Portland. The state's three southernmost coastal counties (York, Cumberland, and Sagadahoc) are home to approximately 535,000 residents, over one-third of the state's population of 1.3 million.	Very Strong	1.9x
Maryland Transportation Authority	MD	AA-/Stable	1971	The authority constructs, operates, maintains, and repairs various transportation-related facilities throughout the state. Seven projects are designated as transportation facilities projects: three Baltimore water crossings, the Fort McHenry Tunnel, Baltimore Harbor Tunnel, and Francis Scott Key (Baltimore Harbor Outer) Bridge; JFK Memorial Highway; Chesapeake Bay Bridge; Nice (Potomac River) Bridge; and Intercounty Connector, which was designated a transportation facilities project in January 2008 and began operations in March 2011.	Very Strong	3.3x

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The express toll lanes also began operations in 2014 and are considered a part of the JFK Memorial Highway.

McAllen International Toll Bridge	TX	A/Stable	1926	McAllen's toll bridge system contains two of the three bridges that connect south Texas to the northern Mexican industrial area of Reynosa. The third bridge is the nearby competing Pharr-Reynosa International Bridge, about 5 miles east.	Strong	1.1x
Metropolitan Highway System	MA	A+/Positive	(Under Construction)	Following the fatal ceiling collapse of the I-90 connector tunnels and the subsequent discoveries of systemic problems, then Gov. Mitt Romney ordered, via Executive Order 474, a full safety review of the entire Metropolitan Highway System. This includes the Big Dig and associated roadways connecting the Big Dig to existing highways.	Very Strong	1.x
Metropolitan Washington Airports Authority (Dulles Toll Road)	DC	A/Negative	1984	The DTR is a 13.4-mile tolled mature roadway with four lanes in each direction, running between inside Interstate 495 (or the Capital Beltway) to State Road 28 with a direct connection to the Dulles Greenway, a privately operated toll road that runs from the DTR to Leesburg, Va. (Toll Road Investors Partnership II; BB/Negative). The DTR has one mainline toll plaza and 19 ramp toll plazas and has initiated a conversion to all-electronic toll collection.	Strong	0.7x
Miami Dade County (Rickenbacker Causeway)	FL	A-/Stable	1947	The causeway is approximately 3.6 miles and provides sole access from the Miami-Dade County mainland to Virginia Key and Key Biscayne. It includes 1.2 miles of bridge structure divided into three bridges and 2.4 miles of roadway. Tolls are collected eastbound only via a four-lane toll plaza on the mainland.	Strong	2.3x
Miami-Dade Expressway Authority & MDX	FL	A/Negative	1994	MDX was created to operate and expand the system and to build other regional transportation projects on an expressway system within Dade County. The 33-mile system includes five expressways running primarily east-west through the Miami metropolitan statistical area. MDX is overwhelmingly an urban-commuter system, with approximately 98% of revenue derived from two-axle vehicles.	Strong	1.6x
Mid Bay Bridge Authority	FL	BBB+/Stable	1993	The Mid-Bay Bridge is a 3.6-mile, two-lane, fixed-span toll facility. The bridge traverses the Choctawhatchee Bay and the Gulf Intracoastal Waterway in Okaloosa County. An eight-lane toll plaza is at the bridge's north end. The north approach on the Niceville side stretches 2.5 miles, while the south approach on the Destin side stretches more than three-quarters of a mile. The bridge is designed to withstand hurricane-force winds and a direct barge impact. The bridge is entirely within Okaloosa County and provides a more direct north-south route for tourists and residents who travel between Niceville and the beach areas of Destin. It also provides a hurricane evacuation route from the southern part of Okaloosa and Walton counties, which is generally the area of highest population concentration. The system also includes the Spence Parkway, an 11-mile limited-access highway which travels north and west around the city of Niceville. Phase 1 of the parkway opened in 2012, and the entire Parkway was complete and began collecting tolls in January 2014.	Strong	1.3x
Montgomery County Toll Road Authority	TX	BBB-/Stable	2006	MCTRA, formerly the Montgomery County Transportation Program, is a government agency created by Montgomery County to oversee all future toll road projects within the county. MCTRA operates one toll road: the MCTRA 249 Tollway, which serves as the tolled mainlines of SH 249 (Tomball Parkway).	Adequate	1.6x

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New Hampshire Turnpike	NH	AA-/Stable	1950	A small, 89-mile turnpike system as a well-developed, relatively geographically diverse network, covering the more heavily traveled portions of the state and providing key links within New England. The system is composed of three primary sections: the 16-mile Blue Star Turnpike (Interstate 95), connecting Massachusetts and Maine; 40-mile Central Turnpike, connecting Nashua, Manchester, and Concord, including a portion of Interstate 93; and 33-mile Spaulding Turnpike, connecting Portsmouth to points north. In addition, the Manchester Airport Access Road, which allows travelers heading north and south on the Central Turnpike to reach the airport without passing through the Bedford toll plaza, opened Nov. 11, 2011. The system has nine toll plazas.	Very Strong	1.8x
New Jersey Turnpike Authority	NJ	AA-/Stable	1951	The New Jersey Turnpike, a 122-mile, limited-access toll road that serves as part of the Interstate 95 corridor, is the primary north-south highway in the state. The Garden State Parkway, a 173-mile, limited-access toll road and essential route for in-state traffic, also is dominated by passenger transactions, with 96%-98% of traffic and revenue. Together, the two roads are New Jersey's largest and most critical surface transportation assets that, while providing a highly essential service, also account for the system's high political oversight, particularly in toll-setting.	Very Strong	1.5x
New York State Bridge Authority	NY	A+/Stable	1932	The system consists of five bridges spanning the Hudson River, together with related facilities: the Rip Van Winkle Bridge, Kingston-Rhinecliff Bridge, Mid-Hudson Bridge, Newburgh-Beacon Bridge, and Bear Mountain Bridge. Tolls are collected only eastbound at all five bridges. The system serves eight counties in New York: Greene, Ulster, Orange, and Rockland on the west bank and Columbia, Dutchess, Putnam, and Westchester on the east bank. NYSBA also operates and maintains a nontolled walkway over the Hudson Bridge that it acquired in December 2010.	Strong	1.3x
New York State Thruway Authority	NY	A/Stable	1960	The superhighway system crosses the state. The route from the New York City line to the Pennsylvania line is 496 miles and includes a 426-mile mainline connecting the state's two largest cities, New York and Buffalo. In 2018, the Gov. Mario M. Cuomo Bridge accounted for 20% of the Thruway's \$764.5 million of total gross toll revenues (before netting out \$28 million of volume discounts). The northern span opened to northbound traffic in August 2017 and the southern span opened to southbound traffic in September 2018.	Very Strong	1.6x
Niagara Falls Bridge Commission	NY	A+/Stable	1938	The system comprises three separate bridges linking the Regional Municipality of Niagara, Ont., and Niagara County, N.Y. The Lewiston-Queenston Bridge is the only one that carries commercial truck traffic and allows other vehicle classes. The Rainbow Bridge is intended for tourists and other regional travelers. The Whirlpool Rapids Bridge is for Nexus patrons (trusted-traveler, electronic toll mechanism) only, linking the commercial zones and downtown districts of Niagara Falls, N.Y., with Niagara Falls, Ont. Tolls on all three bridges are charged in only one direction, crossing into Canada, with tolls accepted in both national currencies. The commission is an international organization consisting of both Canadian and U.S. members appointed by the premier of Ontario and governor of New York.	Strong	1.8x
North Carolina Turnpike Authority (Monroe Expressway)	NC	BBB/Stable	2018	The expressway consists of an approximately 20-mile, all-electronic tolling roadway extending from U.S. Highway 74 at Interstate 485 in eastern Mecklenburg County, N.C., to U.S. 74 near Marshville. It provides a limited-access, four-lane road and an alternate and	Adequate	1.7x

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time-saving route for travelers taking U.S. Highway 74 through Monroe and several other communities.

North Carolina Turnpike Authority (Triangle Expressway)	NC	BBB/Stable	2011	A toll road operating in a relatively large metropolitan area that provides important links within the Raleigh-Durham region, with strong traffic demand above initial forecasts.	Strong	1.x
North East Texas Regional Mobility Authority	TX	BBB/Stable	2006	Toll 49 is a 26-mile toll road that forms a partial loop around Tyler in Smith County, Texas. Segment 4, the latest proposed extension, would expand the road's western portion from U.S. Route 69 in Lindale south to Interstate 20 and north of Tyler for an additional 6.6 miles. Like the existing facility, Toll 49 will consist of a two-lane access controlled tollway. It is a cashless roadway that uses electronic toll collection (ETC) gantries and video tolling (pay by mail). ETC lanes are open to all traffic and tolls are collected via transponders or license-plate photos for the pay-by-mail option.	Adequate	1.6x
North Texas Tollway Authority	TX	A+/Stable	1968	The NTTA system consists of the Dallas North Tollway, Addison Airport Toll Tunnel, Mountain Creek Lake Bridge, President George Bush Turnpike (PGBT), Lewisville Lake Toll Bridge, Sam Rayburn Tollway project (subject to the Texas Department of transportation's reversionary interest after 50 years), Chisholm Trail Parkway (CTP), and PGBT Western Extension (PGBT WE). The CTP and PGBT WE were previously part of the Special Projects System and were incorporated into the NTTA system in 2017.	Very Strong	1.3x
Ohio Turnpike and Infrastructure Commission	OH	AA-/Stable	1955	The Ohio Turnpike System is a modern, limited-access 241-mile toll road, spanning northern Ohio and connecting the principal cities in the region, which include Toledo, Cleveland, and Youngstown, with a service area population of about 5.8 million across 38 counties. However, the turnpike's reach extends more broadly, given its important role as an east-west transportation corridor in the Midwest spanning the width of northern Ohio, serving tourists, truckers, commuters, and other travelers. The system links directly with the Pennsylvania Turnpike to the east and the Indiana Toll Road to the west.	Very Strong	2.5x
Oklahoma Turnpike Authority	OK	AA-/Stable	1947	The OTA consists of 10 toll roads totaling approximately 605 miles. The system includes urban and rural facilities, with three of its corridors making up the Interstate 44 corridor in Oklahoma. It provides key links between and around Tulsa and Oklahoma City, the state's primary economic centers.	Very Strong	2.x
Orange County Transportation Authority (SR-91 Express Lanes)	CA	AA-/Stable	1995	The 91 Express Lanes is a four-lane, 10-mile toll road built in the median of California's Riverside Freeway (SR 91) between the Orange-Riverside County line and the Costa Mesa Freeway (SR 55).	Strong	2.8x
Osceola County Parkway (Osceola Parkway)	FL	BBB+/Stable	1995	The Osceola Parkway is a mature and fully built-out 17.3-mile toll facility in Osceola County. Only the western 4.7 miles of the parkway are tolled. The parkway is mostly a commuter road, with passenger traffic accounting for about 99% of total traffic.	Strong	1.1x
Pennsylvania Turnpike Commission	PA	A+/Stable	1940	The large and mature system consists predominantly of the 359-mile east-west Mainline Section, 110-mile north-south section (the Northeast Extension), 16-mile Beaver Valley Expressway, 13-mile Amos K. Hutchinson Bypass, 48-mile completed portion of the Mon/Fayette Expressway, and 6-mile segment of the Southern Beltway on which tolls are collected. The Mainline Section traverses southern Pennsylvania and connects	Very Strong	1.2x

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the Ohio Turnpike at the system's western end with the New Jersey Turnpike at the system's eastern end.

Pharr International Toll Bridge	TX	A/Stable	1994	The Pharr-Reynosa International Bridge serves as one of the most important ports of entry for the U.S.-Mexico border. It handles both commercial and passenger operated vehicles and crosses about 175,000 vehicles a month.	Strong	1.x
Rhode Island Turnpike & Bridge Authority	RI	A-/Stable	1969	The authority serves Rhode Island with four bridges, one of which is tolled, and maintains Route 138 through Jamestown. At strategic points throughout the state, the bridges provide access to Aquidneck Island and Newport, a regional tourist destination as well as home to the Newport Naval Station.	Strong	2.2x
Richmond Metropolitan Transportation Authority	VA	A+/Stable	1966	RMTA is a political subdivision of the commonwealth of Virginia. It was created in 1966 to provide an urban expressway system to make downtown Richmond more accessible. RMTA owns and operates an expressway system, which consists of three tolled assets including the Powhite Parkway (4.1 miles), Downtown Expressway (2.7 miles), and Boulevard Bridge (0.4 miles), and contains 36 bridges. As of fiscal year-end June 30, 2021, the authority had \$136.4 million in debt outstanding with a final maturity of 2031.	Strong	0.9x
Riverside County Transportation Commission (SR-91 Express Lanes)	CA	A/Stable	1995	The 91 Express Lanes is a four-lane, 10-mile toll road built in the median of California's Riverside Freeway (SR 91) between the Orange-Riverside County line and the Costa Mesa Freeway (SR 55).	Strong	1.2x
San Diego Association of Governments (SR-125)	CA	A/Stable	2007	SR-125, in suburban Chula Vista, Calif., is an 11-mile limited-access toll road approximately four miles east of and parallel to Interstate 805. The expressway connects much of San Diego County's undeveloped land tracts near the U.S.-Mexico border crossing of Otay Mesa to SR 54 to the north. It also provides highway access to the developed master planned communities, commercial districts, and employment centers of Eastlake, Otay Ranch, Rolling Hills Ranch, and San Miguel Ranch. Most (75%) of the trips on the road enter or exit SR 125 at the SR 54 interchange, with travelers commuting 25-30 minutes to and from downtown San Diego or points northwest of the toll corridor. Over three-quarters of all users pay via electronic toll collection (branded as FasTrak) at an average toll of about \$1.70 each direction.	Strong	0.8x
San Joaquin Hills Transportation Corridor Agency	CA	A/Stable	1996	SJHTCA owns and operates the toll collection and revenue management system on a 15-mile, limited-access road running from Newport Beach to San Juan Capistrano in southwest Orange County. The toll road itself is owned by Caltrans, which is also responsible for maintenance and repairs of the toll road system. It is a sister agency to the Foothill/Eastern Transportation Corridor Agency, which administers another toll facility in the county. The two agencies share staff but are two separate joint-power authorities and have different board members based on the relevant member cities along each road.	Strong	0.9x
South Jersey Transportation Authority	NJ	BBB+/Stable	1991	The authority is responsible for operating the Atlantic City Expressway, Atlantic City International Airport, and other transportation services/parking facilities in South New Jersey. In addition, the authority is responsible for coordinating the region's transportation system in the six counties that compose its service region, and traffic management and transportation planning in Atlantic County. This responsibility results in the authority's subsidization of non-expressway and airport projects,	Strong	1.5x

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which are considered general projects and funded on a subordinate lien as per the resolution.

Sunshine Skyway Bridge	FL	A/Stable	1954	The Florida Turnpike Enterprise operates the Florida Department of Transportation (FDOT) maintains the Sunshine Skyway Bridge, a 17.4-mile, four-lane toll bridge that spans Tampa Bay and connects Pinellas and Manatee counties. The bridge has one tolling plaza for northbound traffic and one for southbound traffic. As of fiscal year-end 2018 (June 30), FDOT reported that the bridge handled 22.2 million transactions, which generated \$26.7 million of toll revenue. Approximately 91% of toll revenues and 97% of total transactions are from passenger cars, with the remaining from commercial vehicles. Approximately 59.8% of toll revenues and 64.3% of total transactions is from SunPass customers, while the remaining is from motorists paying cash tolls.	Strong	1.1x
Tampa Hillsborough County Expressway Authority	FL	A+/Stable	1976	The expressway system includes the Lee Roy Selmon Expressway, a 15-mile, all-electronic, limited-access toll road that traverses Hillsborough County, providing access to downtown Tampa Bay. In addition to a standard four-lane highway, the expressway includes three elevated reversible lanes linking Tampa's central business district and Brandon.	Strong	2.4x
Triborough Bridge & Tunnel Authority	NY	AA-/Stable	1936	System facilities include the Robert F. Kennedy Bridge (formerly the Triborough Bridge); Verrazano Narrows Bridge; Bronx Whitestone Bridge; Throgs Neck Bridge; Henry Hudson Bridge; Marine Parkway Gil Hodges Memorial Bridge; Cross Bay Veterans Memorial Bridge; Brooklyn Battery Tunnel; and Queens Midtown Tunnel.	Extremely Strong	1.x
West Virginia Parkways Authority	WV	AA-/Stable	1987	The West Virginia Turnpike is a four-lane toll highway, 88 miles, between Princeton and Charleston, W.Va.	Very Strong	11.3x

DSCR—Debt service coverage ratio.

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