FitchRatings



# Transportation Infrastructure Rating Criteria

## Sector-Specific Criteria

## Scope

This criteria report specifies Fitch Ratings' global methodology for assigning and monitoring credit ratings to issuers or obligations, or both, where repayment is dependent upon cash flow from the ownership or operation of infrastructure or project finance transportation entities, or both, including those with multiple assets in different locations.

The criteria applies to core (such as toll roads, airports and ports) and ancillary transportation infrastructure assets or transactions as well as to transactions in sectors with comparable characteristics, such as car parks. Issuers may be special-purpose vehicles, corporate holdcos or opcos, or public finance entities.

This report should be read in conjunction with the *Infrastructure and Project Finance Rating Criteria*. Attribute tables are not prescriptive, but provide qualitative guidance in assessing project or entity risks.

## Key Rating Drivers

Fitch has identified five key rating drivers (KRDs), each of which has a significant role in determining the rating outcome for transportation assets. The relative influence of qualitative and quantitative factors varies between entities. As a general guideline, revenue risk has the most direct influence on operating transportation ratings; however, the weakest element may attract increased analytical weighting.

The primary KRDs for transportation infrastructure assets are:

- **Revenue Risk — Volume:** Considers the role of the asset or network in the broader transportation system, its exposure to competing alternatives, and the traffic volatility and composition. It also considers the economic and demographic fundamentals of the service area and the cost of transportation service compared to peers.
- **Revenue Risk — Price:** Considers the legal and contractual rate-raising ability, risk of political interference and, when applicable, percentage of guaranteed revenue.
- **Infrastructure Development/Renewal:** Considers the approach taken to capital investment and maintenance, including planning, funding and management.
- **Debt Structure:** Considers the composition of payment terms and the strength of covenants to support debt payment, maintain adequate liquidity and keep metrics under control.
- **Financial Profile:** Considers cash flow resilience to support timely debt payment under the base case or rating case, or both, and, when appropriate, project stresses and break-even scenarios.

### Table of Contents



This report updates and replaces the following:

- Airports Rating Criteria, published 22 October 2020
- Ports Rating Criteria, published 15 October 2020
- Toll Roads, Bridges and Tunnels Rating Criteria, published 26 June 2020

### Related Criteria

Infrastructure and Project Finance Rating Criteria (August 2021)

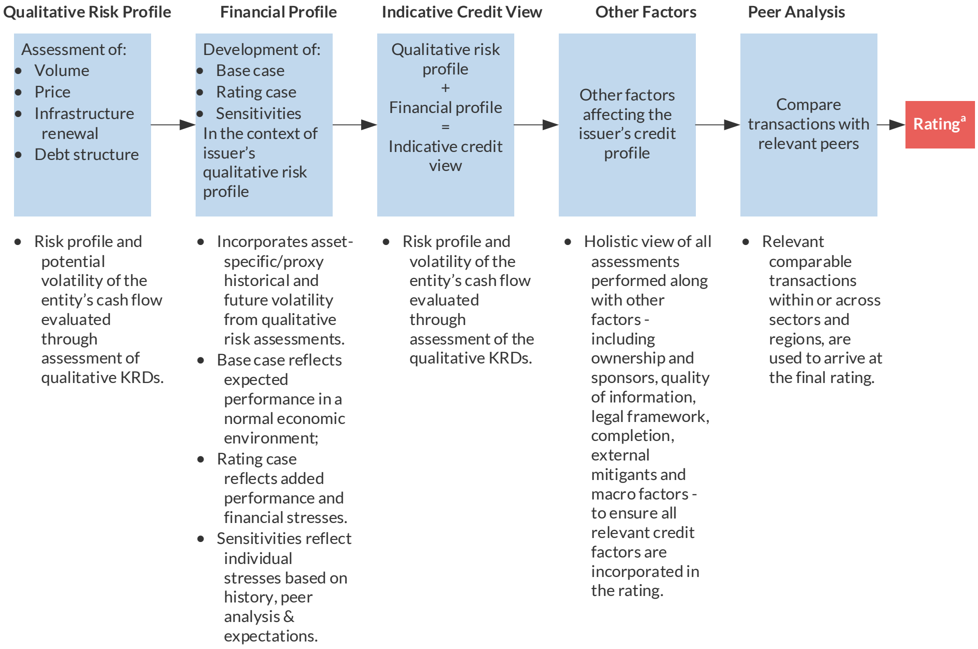
Availability-Based Projects Rating Criteria (May 2020)

Completion Risk Rating Criteria (December 2020)

## Rating Derivation Summary

The diagram below outlines the rating approach under the *Transportation Infrastructure Rating Criteria*. Fitch will first complete the qualitative risk assessment, which involves evaluating the entity's cash flow through the assessment of four KRDs: 1) revenue risk – volume (volume risk) 2) revenue risk – price (price risk), 3) infrastructure development/renewal and 4) debt structure. All together, these four qualitative KRDs determine the qualitative risk profile. Fitch will then assess the financial profile KRD and develop financial scenarios to test resiliency to downsides, and then combine the assessment of the qualitative risk profile and of the financial risk profile to derive an indicative rating. Before finalising the rating, Fitch will factor in other metrics and considerations, which can have a significant impact on the overall rating. Examples include sovereign risk, concession life, corporate governance issues, balance sheet flexibility and operating risk.

### Rating Derivation Summary




[a] ESG considerations are reflected in the key rating drivers, in the qualitative risk profile and other factors such as ownership and sponsors, quality of information, legal framework, completion risk and macro factors
Source: Fitch Ratings

## Key Rating Driver Assessments for Transportation

The four qualitative KRDs typically assessed are: volume, price, infrastructure renewal and debt structure. Volume and price risk KRD tables are shown below, while infrastructure renewal and debt structure KRD tables are in the *Infrastructure and Project Finance Rating Criteria*. Please see Appendices A, B and C for more detailed sector-specific sub-factor descriptions, providing further guidance in relation to the assessment of the volume sub-factors defined in the cross-sector KRD table below.

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## Key Rating Drivers Assessment for Volume Risk

| Description Volume Risk | Stronger | Midrange | Weaker |
|---|---|---|---|
| Reference market | Large, economically strong, diverse and mature reference market | As per "stronger" but one or more of the attributes may be weaker – such as smaller, more concentrated or less economically strong reference market | Operates in a relatively small and/or economically weak/volatile reference market |
| Strategic importance[a] | Asset or portfolio of assets plays an essential role in the broader transportation system | Asset or portfolio of assets plays an important but not essential role in the broader transportation system | Asset(s) is peripheral and plays a limited or small role in the broader transportation system |
| Diversification | Asset or portfolio of assets has a broad diversity of users and/or revenue lines and/or geographies. | Asset or portfolio of assets with some diversity of users and/or revenue lines and/or geography | Asset or portfolio of assets, highly concentrated by users and/or revenue lines and/or geography |
| Competition | No or immaterial exposure to competition | Some exposure to competition | Highly exposed to competition |
| Demand volatility | Stable demand with low volatility | Moderate demand volatility | Highly volatile demand |
| Relative cost to end-users | Low tariffs/prices charged | Average tariffs/prices charged | High tariffs/prices charged |

[a] Size is a secondary indicator of essentiality
Source: Fitch Ratings

### Assessment of Volume Risk Under the Five-Point Scale

Fitch initially assesses all KRD sub-factors on the three-point scale identified above and, where relevant, in conjunction with the sector guidance for Volume Risk sub-factor assessments in the appendices of this criteria. The assessment under the five-point scale is determined through assessing the KRD sub-factors as stronger, midrange, or weaker, and is based on the distribution, number, and relative importance of these subfactors at each level for the transaction. The weakest KRD sub-factors may attract greater analytical weighting. This permits a further determination of the relative strength or weakness within the selected category for overall Stronger or Midrange assessments by categorising the final assessment as either High Stronger or Stronger, or High Midrange or Midrange, as appropriate. By expanding to a five-point scale Fitch provides enhanced transparency and granularity in assigning notch-specific ratings across rating categories. Please see indicative considerations below.

Indicative high-level considerations shown below are not based solely on the mechanical counting of the sub-factor assessments, as the final overall volume assessment considers the weighting of each sub-factor, which can very between transactions.

### Five-Point Scale Volume Sub-Factor Assessments

| Volume assessment | Indicative considerations |
|---|---|
| High Stronger | Predominantly stronger sub-factor assessments, with others assessed at midrange |
| Stronger | Likely to feature a balance of stronger and midrange sub-factor assessments, potentially with a slight majority of stronger assessments |
| High Midrange | Likely to feature predominantly midrange sub-factor assessments, potentially with a minority of stronger assessments |
| Midrange | Predominantly midrange sub-factor assessments, potentially with a minority of weaker assessments |
| Weaker | Predominantly weaker sub-factor assessments, potentially with a minority of other assessments |

Source: Fitch Ratings

## Assessment of Price Risk

### Assessment of Price Risk

| Description Price Risk | Stronger | Midrange | Weaker |
|---|---|---|---|
| Legal or contractual price-setting flexibility | No or minimal contractual or statutory price caps, or ability to increase rates materially above inflation | Contractual or statutory price caps substantially tracking inflation | Contractual or statutory price caps track substantially less than inflation |
| Political pressure | Evidence of minimal legislative or political interference | Evidence of some legislative or political interference | Evidence of significant legislative or political interference |
| Long-term contracted revenues | Take-or-pay contracts, long-term leases representing a substantial portion of revenues with long minimum average lives or to the end of the concession | Take-or-pay contracts, long-term leases representing a moderate portion of revenues with intermediate term average lives | Take-or-pay contracts, long-term leases representing a small portion of revenues with short term average lives |

Source: Fitch Ratings

The final overall price assessment is not just based on mechanical counting of the sub-factor assessments, as it considers the weighting of each sub-factor, which can vary between transactions.

## Revenue Risk

Revenue risk is usually considered the most significant rating factor for transportation infrastructure assets. Gross revenue is determined by volume and price, and risk is driven by the level of uncertainty around traffic levels and the ability to raise infrastructure rates as necessary.

## Revenue Risk - Volume

Fitch considers the following six sub-factors when assessing volumes within revenue risk: reference market, strategic importance, diversification, competition, demand volatility, and relative cost to end users.

### Reference Market

The economic and demographic environment within which the transportation asset operates greatly influences its stability and growth prospects. Fitch considers a strong reference market to be large, economically strong and diverse, and mature. These traits commonly take the form of long-standing and densely populated areas – either in prominent urban centres or in highly populated areas close to primary urban centres.

A reference market would be considered midrange if the asset operates in secondary urban centres or regions or less mature, more economically cyclical areas. A reference market that is small, geographically remote, economically disadvantaged, shrinking, or highly volatile would be considered weaker.

### Strategic Importance

We assess a transportation asset's strategic importance or the facility's role within or between reference markets by considering the facility's essentiality and level of connectivity. We measure a facility's essentiality by the nature of the service it provides and the degree to which that service is integral to the day-to-day economic and social functioning of the community or broader region. A stronger facility, for example, would tend to have an essential role in the broader transportation system, while weaker facilities would tend to have a limited or small role in the broader transportation system.

### Diversification

Fitch assess a transportation asset's level of diversification through the number of assets (transactions may feature a single asset or a portfolio of assets), geography, user base, and revenue streams. High levels of diversification provide a degree of protection against economic cyclicality; geographic diversification provides protections to sector or industry dependence, event risks such as natural disasters, and localised risks.

We view diversification as stronger for issuers with multiple, geographically diverse, assets that are in locations with limited economic correlation or that have a broad and resilient user base. Midrange facilities have few assets in geographically diverse locations with some economic correlation or a moderately diverse user base. Diversification would be weaker if the portfolio of assets is small, geographically concentrated or located either in countries with less developed regulatory frameworks or where assets have a high economic correlation to downturns.

Diversification in a single-asset transaction is considered stronger if the issuer has a well-diversified user/counterparty/revenue/business line base.

### Competition

We assess a transportation asset's competitive position primarily in relation to other assets operating in the same sector and, secondarily, in relation to alternative forms of transportation, such as trains and ferries. A stronger competition sub-factor would apply to a facility with little or no direct competition or alternative modes of transportation. Midrange facilities are exposed to moderate competition from other facilities. A weaker asset is exposed to a high level of direct competition. As competitive pressures rise, so too do the risks that traffic demand could fall.

### Demand Volatility

Fitch considers demand volatility in light of previous or projected peak-to-trough traffic losses. Peak-to-trough is assessed during economic cycles, such as the 2008-2009 global financial crisis, or other cycles relevant to the issuer. We expect stronger facilities to have stable and resilient demand, with low historical and prospective volatility typically of around 5% from peak-to-trough; high barriers to entry in the issuer's reference market, and a low risk that structural industry changes will reduce volumes in the long term. Thresholds for volatility will generally apply but may vary due to issuer-specific considerations. In contrast, midrange facilities would tend to have moderate historical and prospective traffic volatility typically of around 10%–15% from peak to trough, with more limited barriers to entry. Weaker facilities are highly volatile, typically with historical and prospective volatility of around 20%. Weaker facilities also tend to be associated with low barriers to entry and may be exposed to a higher risk of structural industry changes. There are also sector-specific considerations, such as the proportion of heavy-vehicle traffic for toll roads, connecting traffic for airports, and transshipment for ports.

### Relative Cost to End-Users

Fitch assesses an asset's relative cost to the end-user as a gauge of economic rate-making flexibility, should it be required. This sub-factor is considered stronger for facilities with low prices, which may be considered in relation to competing alternatives or similar facilities elsewhere. Midrange facilities have average prices, while weaker facilities charge high prices.

## Revenue Risk - Price

We consider three sub-factors for price as it relates to revenue risk: legal or contractual price flexibility, political pressure, and long-term contracted revenues.

### Legal or Contractual Price Flexibility

Legal or contractual price flexibility is an influential sub-component of an asset's price framework as it defines the maximum scope of rate-raising capabilities. Restricted ability to raise revenues increases the possibility of higher expenses eroding financial margins over time. We generally assume that private sponsors raise rates to the maximum level allowed under the relevant contract, concession, license or other form of legal arrangement, implying that they are unlikely to have any flexibility to raise rates reactively to mitigate the effect of a shock or change in conditions.

A stronger assessment would reflect no or minimal contractual or statutory price caps or the ability to increase prices materially above inflation. Midrange facilities can implement price hikes that can mostly follow inflation, as allowed under the applicable statute or contract. Fitch views weaker facilities as lacking the legal or contractual flexibility to raise rates at or near to inflationary levels, thus experiencing material declines in real rates over time. In Fitch's experience, a lack of legal flexibility to this degree is rare.

### Political Pressure

Political pressure deals with an owner or operator's willingness to raise prices in a prudent manner and considers both the facility's direct rate-setting body as well as any third-party regulator, political body, or other authority with the power to stop rate hikes, materially defer them, or roll back existing ones. Fitch considers direct political interference as well as political influence that falls short of legislative or executive action.

A stronger facility has the capacity to raise prices in an environment of little or no political interference or influence. In terms of public facilities, those established as independent legal entities with exclusive control of their rates tend to be more politically insulated, as do governing bodies that raise prices regularly and moderately instead of occasionally and abruptly. Some stronger privately operated facilities have automated price hikes in their concession agreements, which formulaically set rates based on factors such as inflation and demand conditions, thus bypassing the political process.

Midrange facilities exhibit some evidence of legislative or political interference. Many public entities have records of limiting price increases due to political considerations, regardless of their economic and legal ability to raise rates. When absolutely necessary, increases are generally implemented in combination with planned capital improvements or expansions. Reluctance among public asset owners to increase prices creates the potential of timing risk that may lead to a reduction in credit strength at certain times.

A weaker facility demonstrates evidence of significant political interference. An example of a weaker facility would be an owner or operator with a long-running and contentious relationship with its higher regulatory or legislative body, which may have obstructed price hikes, forced reductions, or used other methods to ultimately obtain its rate preference.

### Long-Term Contracted Revenues

Stronger attributes include take-or-pay contracts or long-term leases representing a substantial portion of revenues, with long minimum average lives, or that continue to the end of the concession (if the transaction features one). Conversely, Fitch would assess transactions with a lower portion of total revenues based on these types of contracts as having midrange or weaker attributes in relation to contracted revenues.

## Infrastructure Development/Renewal

Fitch considers reinvestment plans in the context of the asset's economic life and volume capacity headroom based on current volume levels and considers the need for future leverage to preserve or, where necessary, expand the asset. Fitch's approach to infrastructure development and renewal is explained in the Infrastructure and Project Finance Criteria.

## Debt Structure

Fitch focuses on how well a proposed capital structure is matched to the characteristics of the issuer being analysed and the margin of safety provided to lenders via financial covenants and leverage limitations. Fitch's approach to debt structure is explained in the Infrastructure and Project Finance Rating Criteria.

## Financial Profile

Fitch evaluates an issuer's ability to service debt under base and rating-case scenarios as described below. In determining a rating, Fitch will evaluate the qualitative attributes described above in conjunction with the financial metric outputs of the developed scenarios, comparing with peers as part of its analysis. Fitch will also evaluate the strength of the issuer's balance sheet to assess its financial flexibility in response to short- and medium-term shocks.

### Base Case, Rating Case and Stresses

Fitch evaluates the risks of rated entities and structures under a variety of scenarios to assess rating stability. Scenarios are developed based on the potential risks an issuer may encounter through base and rating cases, stress scenarios, sensitivities and breakeven analysis, as appropriate.

Financial projections are based on the issuer's current and historical operating and financial performances, its strategic orientation, and its analysis of wider industry trends. The base case reflects expected performance in a normal economic environment. The rating case reflects stressed performance and financial stresses. The magnitude of stresses applied will be informed by the assessment of volatility in KRD qualitative assessments, historical data, and third-party expert reports, where available. The 'distance' between the base case and the rating case will represent the degree of stress that Fitch deems commensurate with the volatility or uncertainty identified for the project or issuer's activity. Sensitivities reflect individual stresses based on history, peer analysis and expectations. More details on the framework can be found in the *Infrastructure and Project Finance Rating Criteria*.

The table in Appendix F highlights indicative assumptions Fitch may apply for each of the base and rating cases for transportation infrastructure assets.

## Metrics Guidance Tables Require Analytical Judgement

The rating guidance tables in the Appendices provide an indicative rating outcome resulting from the combined qualitative and quantitative assessments of an entity's risk profile. The tables establish a link between the assessment of the KRDs and the entity debt capacity, as indicated by the relevant leverage and coverage metrics. However, the suggested rating outcome of coverage and leverage tables are indicative only, as the transactions are usually not only rated on the basis of leverage or coverage metrics, or both, but also consider a number of other factors such as the issuer's balance-sheet flexibility, other ratios, results of sensitivity and breakeven analysis, and corporate governance (please refer to the indicative guidance tables' notes in appendices A, B and C). Furthermore, the evaluation and importance of the KRDs is specific to the individual credit being considered. There is no standard formula that mechanistically links these assessments to a final rating. Fitch's criteria are designed to be used in conjunction with experienced analytical judgement exercised through a committee process.

For the sector-specific leverage and coverage guidance tables and guidance notes related to toll roads, airports, and ports, please refer to appendices A, B and C, respectively. For transportation assets or sectors that are not explicitly covered by these appendices, Fitch will use the leverage and coverage guidance tables in combination with its assessment of the sector- and transaction-specific KRDs to adjust indicative metrics guidance for the new sector. Indicative metrics guidance will be adjusted based on the qualitative assessment of the business profile of these entities, including elements from any relevant Fitch criteria.

**Forecast Period**

Public sector enterprises that own large, mature infrastructure assets outright or infrastructure entities with long-life assets generally releverage assets over time to meet ongoing infrastructure renewal and expansion needs. Furthermore, the management usually has a reasonable amount of flexibility in how it manages its assets. For these issuers, Fitch will typically conduct its analysis on the basis of operating and financial projections extending around five years.
For project financings, or for public sector enterprises that own standalone projects, analytical focus is on the ultimate repayment of debt. For these assets, Fitch will assess operating and financial projections that extend to debt maturity.

## Metrics

Please see Fitch's *Infrastructure and Project Finance Rating Criteria* for more information on metrics used by all three of the transportation sectors, as listed here: Cash Flow Available for Debt Service (CFADS), EBITDA, debt service coverage ratio (DSCR), interest coverage ratio (ICR), project life coverage ratio (PLCR), loan life coverage ratio (LLCR), project minimum interest coverage ratio (PMICR), maximum annual debt service (MADS), leverage ratio and days cash on hand (DCOH). Please refer to Appendices A, B and C for toll roads, airports, and ports sector-specific metrics, respectively. Fitch may also refer to other metrics in addition to those listed above and in the relevant appendices in reports or rating action commentaries on individual issuers, as made relevant by covenants or market convention.

## Models

Fitch may use the following models when rating toll roads, airports and port sector transactions: the GIG AST Model, the Infrastructure and Project Finance Model (InForM), the Corporate Monitoring & Forecasting Model (COMFORT Model) and third-party models. The models that best reflect the structure and the risks of the transaction will be selected for use. The Models section in the *Infrastructure and Project Finance Rating Criteria* describes these models. For the analysis of toll road credits, Fitch may also use the GIG MTR model and the LatAm Toll Road National Ratings Model. These two models are specific to the toll roads sector and are described in Appendix A.

## Rating Assumption Sensitivity

Below is a non-exhaustive list of the primary sensitivities that can influence project ratings.

- **Traffic performance:** Changes in expected traffic performance can affect a project's ability to earn projected revenues and potentially reduce its ability to serve the debt;
- **Price risk:** A lower-than-expected price increase could reduce the expected cash flow generation, affect coverage and leverage metrics, and ultimately weigh negatively on the project rating; and
- **Costs:** Operational expenditure (opex) and capex that deviate from projections may indicate greater-than-expected cost volatility, higher-than-expected funding needs, or a failure to properly estimate or fully capture all relevant cost items.

## Variations from Criteria

Fitch's criteria are designed to be used in conjunction with experienced analytical judgement exercised through a committee process. The combination of transparent criteria, analytical judgement applied on a transaction-by-transaction or issuer-by-issuer basis, and full disclosure via rating commentary strengthens Fitch's rating process while assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature, or other factor relevant to the assignment of a rating, and the methodology applied to it, are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

## Data Sources

The development of the criteria and its key rating assumptions are informed by Fitch's analysis of infrastructure transactions over many years, in addition to transaction documents and data and information received from issuers and/or obligors for financed projects; arrangers; third-party engineers; consultants and other third-parties; public information; and Fitch's analytical judgement.

## Disclosure

Fitch expects to disclose the following items in reports or rating action commentary:

- KRDs and their assessment;
- Financial metrics;
- Peer analysis;
- Main analytical assumptions; and
- Rating sensitivities.

Moreover, any variations to criteria will be detailed in Fitch's transaction reports.

## Limitations

Ratings, including Rating Watches and Outlooks, assigned by Fitch are subject to the limitations specified in Fitch's Ratings Definitions, which are available at www.fitchratings.com/site/definitions

## Appendix A – Toll Roads Sector-Specific Content

The volume KRD table shown below provides more detailed sector-specific sub-factor descriptions, enhancing the guidance on the assessment of the volume factors defined in the cross-sector KRD table on page 4.

### Toll Roads – Guidance for Volume Risk Sub-Factor Assessments

| Toll Roads | Volume Risk – Sub-Factor - Description |
|---|---|
| **1. Reference market** | ✓Considered Stronger if the toll road, tunnel or bridge operates within a large, economically strong, diverse and mature reference market.<br>✓It would be Midrange if one or more of these attributes may be weaker such as smaller, more concentrated or a less economically strong reference market.<br>✓It would be considered Weaker if the asset operates within a relatively small or economically weak/volatile reference market. |
| **2.Strategic importance** | ✓Considered Stronger if the toll road, tunnel or bridge is essential in the broader road network, with high levels of connectivity either within or between reference markets[a.]<br>✓It would be Midrange if the asset has an important but not essential role in the broader road network, with some connectivity either within or between reference markets[a.]<br>✓It would be considered Weaker if the asset has a limited role in the broader road network, with limited connectivity either within or between reference markets [a.] |
| **3.Diversification** | ✓Considered Stronger if the issuer has a user base with marginal exposure to commercial, leisure or discretionary traffic and, for issuers with multiple assets, a portfolio of geographically diversified assets with limited economic correlation and predominantly located in countries with well-established regulatory frameworks.<br>✓It would be Midrange if the issuer has moderate exposure to commercial, leisure or discretionary traffic and, for issuers with multiple assets, a small portfolio of assets with limited geographical diversification or some economic correlation or some assets located in countries with less developed regulatory frameworks.<br>✓It would be considered Weaker if the issuer has a single asset and/or high exposure to commercial, leisure or discretionary traffic and, for issuers with multiple assets, a small portfolio of assets with high geographical concentration and/or high economic correlation and/or most of the assets located in countries with less developed regulatory frameworks. |
| **4.Competition** | ✓Considered Stronger if the toll road, tunnel or bridge has minimal direct competition or alternative modes of transport.<br>✓It would be Midrange if the asset has some competition from other roads, tunnels or bridges or alternative modes of transport.<br>✓It would be considered Weaker if the asset has direct road competition or alternative modes of transport. |
| **5.Demand volatility** | Considered Stronger if the toll road, tunnel or bridge exhibits all or most of the following:<br>a) Stable and resilient demand demonstrating historical and prospective low volatility;<br>b) Heavy goods vehicles traffic generates a relatively low portion of revenues; approximately 0%–20%<br>c) High barriers to entry[b] in the issuer's reference market; and<br>d) Low risk that structural industry changes impact volumes in the long term.<br>Considered Midrange if the toll road, tunnel or bridge exhibits all or most of the following:<br>a) Historical and prospective volatility was considered moderate;<br>b) Heavy goods vehicles traffic generates a moderate portion of revenues; approximately 20%–40%<br>c) Moderate barriers to entry[b] in the issuer's reference market; and<br>d) Moderate risk that structural industry changes impact volumes in the long term.<br>Considered Weaker if the toll road, tunnel or bridge exhibits all or most of the following:<br>a) Highly volatile historical and prospective demand;<br>b) Heavy goods vehicles generate a high portion of revenues; generally higher than 40%<br>c) Low barriers to entry[b] in the issuer's reference market; and<br>d) High risk that structural industry changes impact volumes in the long term. |
| **6.Relative cost to end-users** | ✓Considered Stronger if the toll road, tunnel or bridge charges low tolls compared to peers.<br>✓Considered Midrange if prices are average relative to peers.<br>✓It would be considered Weaker if the asset charges higher prices than peers. |

[a] Size is a secondary indicator of essentiality. [b] To determine whether the barriers to entry assessment is high, moderate or low, the influences Fitch considers will include: a) access to market for new entrants based on regulatory or market surroundings, b) scarcity of alternative locations/physical assets, c) planning/permitting processes, and d) significance of required capital-related costs
Indicative high level considerations are not just based on mechanical counting of the sub-factor assessments, as the final overall volume assessment considers the weighting of each sub-factor which can very between transactions
Source: Fitch Ratings

## Indicative Credit View Table – Toll Roads

| Toll Roads Guidance | | Coverage | | | | Leverage Project Finance-Like Entities or US Public Sector Entities | | | | Leverage – Corporate-Like Infrastructure Issuers | | | | Other Metrics/Factors (if Applicable) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AA | A | BBB | BB | AA | A | BBB | BB | AA | A | BBB | BB | |
| **Volume** | **Price** | | | | | | | | | | | | | |
| High Stronger | Midrange | ≥ 1.8x | ≥ 1.4x | ≥ 1.2x | ≥ 1.1x | ≤ 8x | ≤ 12x | ≤ 15x | ≤ 17x | — | ≤ 5.0x | ≤ 6.5x | ≤ 8.0x | |
| Stronger | Midrange | ≥ 1.9x | ≥ 1.5x | ≥ 1.3x | ≥ 1.1x | ≤ 5x | ≤ 9x | ≤ 12x | ≤ 14x | — | ≤ 4.5x | ≤ 6.0x | ≤ 7.5x | Other ratios: PLCR, LLCR, ICR, PMICR, MADS<br>Concession tenor of weighted average life<br>Balance sheet flexibility |
| High Midrange | Midrange | — | ≥ 1.6x | ≥ 1.4x | ≥ 1.2x | — | ≤ 6x | ≤ 9x | ≤ 11x | — | ≤ 4.0x | ≤ 5.5x | ≤ 7.0x | |
| Midrange | Midrange | — | ≥ 1.7x | ≥ 1.5x | ≥ 1.3x | — | ≤ 4x | ≤ 6x | ≤ 8x | — | ≤ 3.5x | ≤ 5.0x | ≤ 6.5x | |
| Weaker | Midrange | — | — | ≥ 1.6x | ≥ 1.4x | — | — | ≤ 3x | ≤ 5x | — | — | ≤ 2.5x | ≤ 4.5x | Results of sensitivity and breakeven analysis |

**See notes to the guidance table in criteria**

**Note:** The above table is constructed assuming a Midrange assessment of "Price Risk" and "Infrastructure Renewal"; The assessment of "Debt Structure" is assumed as Midrange for project finance-like entities guidance and "Midrange/Weaker" for corporate-like infrastructure issuers in the indicative leverage metrics guidance table. In the case of a different assessment of price, infrastructure renewal and debt structure, the metrics guidance will be adjusted as per appendix D. The guidance refers to the midpoint of each rating category.
Source: Fitch Ratings

### Coverage and Leverage Guidance Tables' Guidance Notes

1) The leverage and coverage[1] guidance is indicative only. When appropriate, the analysis will also consider other factors, such as those listed below. These factors can affect the rating outcome and potentially override the indicative metrics guidance outcome:

   (a) Resilience to stress, and results of sensitivity and breakeven analysis;

   (b) Peer analysis;

   (c) Corporate governance issues;

   (d) Other ratios, as appropriate, such as ICR, PLCR, LLCR and synthetic DSCR[2]

   (e) Concession tenor or concessions' weighted average life;

   (f) Material exposure of operations in sub-investment-grade countries; and

   (g) Balance sheet flexibility.

   Business diversification in non-core infra businesses: For transactions featuring EBITDA that is generated by multiple transportation assets in different sectors, potentially in addition to other non-transportation sectors (for example, construction), Fitch may use an EBITDA-based weighted average to derive the rating sensitivities based on the guidance tables from the relevant transportation sectors;

2) It is unlikely that corporate-like infrastructure issuers will be rated higher than in the 'A' category;

3) Where coverage/DSCR may infrequently be relevant to corporate-like infrastructure issuers, it is possible that Fitch may apply higher thresholds depending on the assessment of issuer volatility and level of protections in the debt structure;

4) Please refer to the Key Rating Driver Assessments for Transportation section above, and appendices D and E for guidance on the assessment of volume risk under the five-point scale, adjustments to metrics guidance and the definition of corporate-like infrastructure issuers versus project finance-like entities.

[1] The coverage guidance applies to DSCR, minimum loan life coverage ratio (LLCR), or project life coverage ratio (PLCR), calculated excluding extraordinary outliers.
[2] Synthetic DSCR: Fitch may calculate a point-in-time annuity style synthetic DSCR based on assumptions for run rate CFADs, cost of debt, and repayment period.

## Toll Roads Sector-Specific Metrics

The criteria report covers a wide range of toll facilities. As a result, metrics used are dependent on both the asset type and on the debt structure and security package employed. In addition to the metrics used, in all sectors referred to above, and, when relevant, Fitch will review some combination of the following when determining ratings:

- Debt/lane kilometre or lane mile;
- Two-axle toll rate/kilometre or mile: Fitch will consider whether the customary toll rate is electronic or cash, and whether a majority of users are commuters or commercial vehicles;
- Opex/lane kilometre or lane mile;
- Capex/lane kilometre or lane mile; or
- Debt/equity ratio for greenfield projects or acquisitions.

## Toll Road Sector-Specific Models

For the analysis of toll road credits, Fitch may also use: GIG MTR model and LatAm Toll Road National Ratings Model. The latter two models are specific to the Toll Roads sector and are described below.

### LatAm Toll Road National Ratings Model

The LatAm Toll Road National Ratings Models consist of three similar transaction-specific cash flow models used for monitoring national scale ratings in Mexico and Chile. The purpose of the models is to produce projections for revenues, expenses, and debt cash flow and the associated financial metrics. The models contain detailed cash flow, including detailed asset-side derivation of revenues, reserve movements, opex and capex, and debt cash flow – including structural features relevant for the ratings. The key model inputs are standard operating and financial factors, such as traffic volumes, prices, operating costs, debt amounts, inflation, and interest and exchange rates. The key model outputs are the financial ratios that underpin the rating analysis — forward-looking DSCR, LLCR and net leverage.

### GIG MTR Model

The purpose of the MTR model is to produce projections for operating and debt cash flow that underpin key ratios in the *Infrastructure and Project Finance Rating Criteria*. The key model inputs are annual traffic volume and average toll price profiles on the revenue side, while operating expenses can be entered as profiles or as percentages of traffic volume, revenues and debt. The model allows project debt service payments for a single debt seniority level, with tranche-specific selection of interest rate, amortisation, interest capitalisation features and hedging structure. Other key inputs are inflation rate and foreign exchange rate. The MTR model is well-suited to analyse standard project finance structures, with simple revenue and costs build-up and debt features. The standard MTR model would not be suited for rating subordinated debt. The model outputs are financial metrics (DSCR, LLCR and net debt to CFADS) and break-even results for volume growth, operating expenses and capital expenses.

## Appendix B – Airports Sector-Specific Content

The volume KRD table shown below provides detailed sector-specific sub-factor descriptions, enhancing the guidance on the assessment of the volume factors defined in the cross-sector KRD table on page 4.

### Airports – Guidance for Volume Risk Sub-Factor Assessments

| Airports | Volume Risk – Sub-Factor - Description |
|---|---|
| **1. Reference market** | ✓Considered Stronger if the airport operates within a large, economically strong, diverse and mature reference market.<br>✓It would be Midrange if one or more of these attributes may be weaker – such as a smaller, more concentrated or less economically strong reference market.<br>✓It would be considered Weaker if the airport operates in a relatively small or economically weak/volatile reference market. |
| **2.Strategic importance** | ✓Considered Stronger if the airport has a key role in the broader aviation system with a strategic or preferred location with fast, direct and quality road and mass transport links connecting the reference market to the airport[a].<br>✓It would be Midrange if the airport is mid-sized, plays an important role in the broader aviation system and has good location and road and mass transport links connecting the reference market to the airport[a].<br>✓It would be considered Weaker if the airport is small, has a secondary role in the aviation system or is outside the reference market or is difficult to access[a]. |
| **3.Diversification** | ✓Considered Stronger if the airport is exposed to a single carrier concentration of 30% or less, offers extensive nonstop and international services and has a balanced mix of business and leisure traffic. For the assessment of issuers with multiple assets, stronger would apply to an issuer with a portfolio of geographically diversified assets with limited economic correlation and that is predominantly located in countries with well-established regulatory frameworks.<br>✓It would be Midrange if it was exposed to a single carrier concentration of 30% to 60%, offers broad services and has high levels of leisure traffic to support volumes. For issuers with multiple assets, midrange would apply to an issuer with a small portfolio of assets with limited geographical diversification or some economic correlation or some assets in countries with less developed regulatory frameworks.<br>✓It would be considered Weaker if the airport is exposed to a single carrier concentration greater than 60% or offers limited services or caters for predominantly leisure traffic. For issuers with multiple assets, Weaker would apply to an issuer with a small portfolio of assets with high geographical concentration and/or high economic correlation and/or most of the assets located in countries with less developed regulatory frameworks. |
| **4.Competition** | ✓Considered Stronger if the airport benefits from minimal competition from other airports or alternative modes of transport.<br>✓It would be Midrange if the airport was exposed to some competition from other airports or alternative modes of transport.<br>✓It would be considered Weaker if the airport is exposed to meaningful competition from other airports or alternative modes of transport. |
| **5.Demand volatility** | ✓Considered Stronger if the airport exhibits all or most of the following:<br>a) Demand is stable and resilient demonstrating historical volume and low volatility;<br>b) Has connecting traffic of up to 20% for domestic airports and higher for international gateways;<br>c) High barriers to entry[b] in the issuer's reference market; and<br>d) Low risk that structural changes will affect issuer volumes in the long term also support the stronger assessment.<br>✓It would be Midrange if the airport exhibits all or most of the following:<br>e) Demand exhibited moderate historical and prospective volatility;<br>f) The airport has connecting traffic of between 20% and 60% or supporting a primary connecting operation, or a major carrier base of operations;<br>g) Moderate barriers to entry[b] in the issuer's reference market; and<br>h) Moderate risk that structural changes will affect issuer volumes in the long term also support the Midrange assessment.<br>✓It would be considered Weaker if the airport exhibits all or most of the following:<br>i) Demand is highly volatile, both historically and prospectively;<br>j) Over 60% of traffic is connecting traffic;<br>k) Low barriers to entry[b] in the issuer's reference market; and<br>l) High risk that structural changes will affect issuer volumes in the long term also support the weaker assessment. |
| **6.Relative cost to end users** | ✓Considered Stronger if the airport's aeronautical and retail yield per passenger and cost per enplanement is lower than competition and peers.<br>✓Considered Midrange if the aeronautical and retail yield per passenger and cost per enplanement is average relative to competition and peers.<br>✓It would be considered Weaker if the airports' aeronautical and retail yield per passenger and cost per enplanement is considered high compared to competition and peers. |

[a] Size is a secondary indicator of essentiality. [b] To determine whether the barriers to entry assessment is high, moderate or low, the influences Fitch considers will include: a) access to market for new entrants based on regulatory or market surroundings, b) scarcity of alternative locations/physical assets, c) planning/permitting processes, and d) significance of required capital-related costs
Indicative high level considerations are not just based on mechanical counting of the sub-factor assessments, as the final overall volume assessment considers the weighting of each sub-factor which can very between transactions.
Source: Fitch Ratings

## Indicative Credit View Table - Airports

| | | Coverage | | | | Leverage – Project Finance-Like Entities or US Public Sector Entities | | | | Leverage – Corporate-Like Infrastructure Issuers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airports guidance** | | **AA** | **A** | **BBB** | **BB** | **AA** | **A** | **BBB** | **BB** | **AA** | **A** | **BBB** | **BB** | **Other Metrics/Factors (If Applicable)** |
| **Volume** | **Price** | | | | | | | | | | | | | |
| High Stronger | Midrange[a] | ≥ 1.9x | ≥ 1.5x | ≥ 1.3x | ≥ 1.1x | ≤ 6x | ≤ 10x | ≤ 13x | ≤ 15x | -- | ≤ 4.5x | ≤ 6.0x | ≤ 7.5x | Other ratios: PLCR, LLCR, ICR, PMICR, MADS |
| Stronger | Midrange | ≥ 2.0x | ≥ 1.6x | ≥ 1.4x | ≥ 1.1x | ≤ 4x | ≤ 8x | ≤ 11x | ≤ 13x | -- | ≤ 4.0x | ≤ 5.5x | ≤ 7.0x | Concession tenor of weighted average life |
| High Midrange | Midrange | -- | ≥ 1.7x | ≥ 1.5x | ≥ 1.2x | -- | ≤ 5x | ≤ 8x | ≤ 10x | -- | ≤ 3.5x | ≤ 5.0x | ≤ 6.5x | Balance sheet flexibility |
| Midrange | Midrange | — | ≥ 1.8x | ≥ 1.6x | ≥ 1.3x | — | ≤ 3x | ≤ 5x | ≤ 7x | — | ≤ 3.0x | ≤ 4.5x | ≤ 6.0x | Results of sensitivity and breakeven analysis |
| Weaker | Midrange | — | — | ≥ 1.7x | ≥ 1.4x | — | — | ≤ 2x | ≤ 4x | — | — | ≤ 1.5x | ≤ 3.5x | |
| **See notes to the guidance table in criteria** | | | | | | | | | | | | | | |

[a] We expect slightly stronger coverages on average in the 'BBB' category for the ports sector in comparison to airports to account for the relative sector volatilities
Note: the above table is constructed assuming a Midrange assessment of "Price Risk" and "infrastructure renewal"; The assessment of "Debt structure" is assumed as Midrange for Project Finance-like entities guidance and "Midrange/Weaker" for corporate-like infrastructure issuers indicative leverage metrics guidance table. In the case of different assessment of price, infrastructure renewal and debt structure, the metrics guidance will be adjusted as per appendix D. The guidance refers to the midpoint of each rating category.
Source: Fitch Ratings

### Coverage and Leverage Guidance Tables' Guidance Notes

1) The leverage and coverage[3] guidance is indicative only. When appropriate, the analysis will also consider other factors such as those listed below. These factors can affect the rating outcome and potentially override the indicative metrics guidance outcome:
   - (a) Resilience to stress, and results of sensitivity and breakeven analysis;
   - (b) Peer analysis;
   - (c) Corporate governance issues;
   - (d) Other ratios, as appropriate, such as ICR, PLCR, LLCR and synthetic DSCR[4];
   - (e) Concession tenor or concessions' weighted average life;
   - (f) Material exposure of operations in sub-investment grade countries; and
   - (g) Balance sheet flexibility.
2) Business diversification in non-core infra businesses: For transactions featuring EBITDA that is generated by multiple transportation assets in different sectors, potentially in addition to other non-transportation sectors (for example, construction), Fitch may use an EBITDA-based weighted average to derive the rating sensitivities based on the guidance tables from the relevant transportation sectors;
3) It is unlikely that corporate-like infrastructure issuers will be rated higher than in the 'A' category;
4) Where coverage/DSCR may infrequently be relevant to corporate-like infrastructure issuers, it is possible that Fitch may apply higher thresholds depending on the assessment of issuer volatility and level of protections in the debt structure;
5) Please refer to the Key Rating Driver Assessments for Transportation section above, and appendices D and E for guidance on assessment of volume risk under the five-point scale, adjustments to metrics guidance, and the definition of corporate-like infrastructure issuers versus project finance-like entities.

[3] The coverage guidance applies to DSCR, minimum loan life coverage ratio (LLCR), or project life coverage ratio (PLCR), calculated excluding extraordinary outliers.
[4] Synthetic DSCR: Fitch may calculate a point-in-time annuity style synthetic DSCR based on assumptions for run rate CFADs, cost of debt, and repayment period.

## Airport Sector-Specific Metrics

This criteria report covers a wide range of airport facilities. As a result, metrics used are dependent on the asset type and also on the debt structure and security package employed. In addition Fitch may, when relevant, also review the following when determining ratings:

- **Net Debt to Regulated Asset Base:** This is a ratio of the project or transaction's net debt position to its value of net invested capital for regulatory purposes.

## Appendix C – Ports Sector-Specific Content

### Ports – Guidance for Volume Risk Sub-Factor Assessments

The volume KRD table shown below provides more detailed sector-specific sub-factor descriptions, enhancing the guidance on the assessment of the volume factors defined in the cross-sector KRD table on page 4.

| Ports | Volume Risk – Sub-Factor - Description |
|---|---|
| 1. Reference market | ✓ Considered Stronger if the port operates within a large, economically strong, diverse and in a mature reference market.<br>✓ It would be Midrange if one or more of these attributes may be weaker such as smaller, more concentrated or less economically strong mature reference market.<br>✓ It would be considered Weaker if the port operates within a relatively small or economically weak/volatile reference market. |
| 2.Strategic importance | ✓ Considered Stronger if the port has a key role in bringing cargo to its reference markets, is strategically located and has a strong competitive position in the supply chain with good ingress/egress with efficient access and multimodal capability[a].<br>✓ It would be Midrange if the asset is important in bringing cargo to its reference markets, has a good location, an average competitive position in the supply chain and a fair ingress/egress with some access limitations or some limits to multimodal capability[a].<br>✓ It would be considered Weaker if it is a smaller port of call with location outside of the reference market or an uncompetitive position in the supply chain and has ingress/egress limitations, difficult access, some inadequate infrastructure[a]. |
| 3.Diversification | ✓ Considered Stronger if the port is exposed to a single business line or cargo type or customer that accounts for less than 20% of volumes. For issuers with multiple assets, stronger would apply to an issuer with a portfolio of geographically diversified assets with limited economic correlation and predominantly located in countries with well-established regulatory frameworks.<br>✓ It would be Midrange if the port is exposed to a single business line or cargo type or customer that accounts for between 20% and 60% of volumes. For issuers with multiple assets, midrange would apply to an issuer with a small portfolio of assets with limited geographical diversification or some economic correlation or some assets in countries with less developed regulatory frameworks.<br>✓ It would be considered Weaker if the port is exposed to a single business line or cargo type or customer that accounts for more than 60% of volumes. For issuers with multiple assets, Weaker would apply to an issuer with a small portfolio of assets with high geographical concentration and/or high economic correlation and/or most of the assets located in countries with less developed regulatory frameworks. |
| 4.Competition | ✓ Considered Stronger if the port has minimal competition in the reference market.<br>✓ It would be Midrange if the port is exposed to some competition.<br>✓ It would be considered Weaker if the port is exposed to high levels of competition from other ports. |
| 5.Demand volatility | ✓ Considered Stronger if the port exhibits all or most of the following:<br>a) Demonstrates low historical and prospective volatility<br>b) Has transshipment up to 20% of traffic<br>c) High barriers to entry[b] in the issuer's reference market<br>d) Low risk that structural changes will affect issuer volumes in the long term also support the stronger assessment<br>✓ It would be Midrange if the port exhibits all or most of the following:<br>a) Demonstrates moderate historical and prospective volatility<br>b) Has transshipment between 20% and 60% of traffic<br>c) Moderate barriers to entry[b] in the issuer's reference market<br>d) Moderate risk that structural changes will affect issuer volumes in the long term also support the midrange assessment.<br>✓ It would be considered Weaker if the port exhibits all or most of the following:<br>a) Has high historical and prospective volatility<br>b) Has transshipment above 60% of traffic<br>c) Low barriers to entry[b] in the issuer's reference market<br>d) High risk that structural changes will affect issuer volumes in the long term also support the weaker assessment |
| 6.Relative cost to end users | ✓ Considered Stronger if the port cost to the end-user represents a low proportion of end-to-end transport cost or has high-value cargo.<br>✓ Considered Midrange if the port cost represents a moderate proportion of end-to-end transport cost or has more exposure to volatile commodities or cargo types.<br>✓ It would be considered Weaker if the port cost represents a high proportion of end-to-end transport cost or has high exposure to extremely specialised cargo types. |

[a] Size is a secondary indicator of essentiality. [b] To determine whether the barriers to entry assessment is high, moderate or low, the influences Fitch considers will include a) access to market for new entrants based on regulatory or market surroundings, b) scarcity of alternative locations/physical assets, c) planning/permitting processes, and d) significance of required capital-related costs. Indicative high level considerations are not just based on mechanical counting of the sub-factor assessments, as the final overall volume assessment considers the weighting of each sub-factor which can very between transactions.
Source: Fitch Ratings

## Indicative Credit View Table – Ports

| Ports Guidance | | Coverage | | | | Leverage – Project Finance-Like Entities or US Public Sector Entities | | | | Leverage –Corporate-Like Infrastructure Issuers | | | | Other Metrics/Factors (If Applicable) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AA | A | BBB | BB | AA | A | BBB | BB | AA | A | BBB | BB | |
| Volume | Price | | | | | | | | | | | | | |
| High Stronger | Midrange[a] | ≥ 2.0x | ≥ 1.6x | ≥ 1.3x | ≥ 1.1x | ≤ 5x | ≤ 9x | ≤ 12x | ≤ 14x | — | ≤ 4.0x | ≤ 5.5x | ≤ 7.0x | Other ratios: PLCR, LLCR, ICR, PMICR, MADS |
| Stronger | Midrange | ≥ 2.1x | ≥ 1.7x | ≥ 1.4x | ≥ 1.1x | ≤ 3x | ≤ 7x | ≤ 10x | ≤ 12x | — | ≤ 3.5x | ≤ 5.0x | ≤ 6.5x | Concession tenor of weighted average life<br>Balance sheet flexibility |
| High Midrange | Midrange | — | ≥ 1.8x | ≥ 1.5x | ≥ 1.2x | — | ≤ 4x | ≤ 7x | ≤ 9x | — | ≤ 3.0x | ≤ 4.5x | ≤ 6.0x | |
| Midrange | Midrange | — | ≥ 1.9x | ≥ 1.6x | ≥ 1.3x | — | ≤ 3x | ≤ 5x | ≤ 7x | — | ≤ 2.5x | ≤ 4.0x | ≤ 5.5x | Results of sensitivity and breakeven analysis |
| Weaker | Midrange | — | — | ≥ 1.7x | ≥ 1.4x | — | — | ≤ 2x | ≤ 4x | — | — | ≤ 1.5x | ≤ 3.5x | |

**See notes to the guidance table in criteria**

[a] We expect slightly stronger coverages on average in the 'BBB' category for the ports sector in comparison to airports to account for the relative sector volatilities
Note: The above table is constructed assuming a Midrange assessment of "Price Risk" and "infrastructure renewal"; The assessment of "Debt structure" is assumed as Midrange for Project Finance-like entities guidance and "Midrange/Weaker" for corporate-like infrastructure issuers indicative leverage metrics guidance table. In the case of different assessment of Price, infrastructure renewal and Debt structure, the metrics guidance will be adjusted as per appendix D. The guidance refers to the midpoint of each rating category.
Source: Fitch Ratings

### Coverage and Leverage Guidance Tables' Guidance Notes

1) The leverage and coverage[5] guidance is indicative only. When appropriate, the analysis will also consider other factors, such as those listed below. These factors can affect the rating outcome and potentially override the indicative metrics guidance outcome:

    (a) Resilience to stress, and results of sensitivity and breakeven analysis;

    (b) Peer analysis;

    (c) Corporate governance issues;

    (d) Other ratios, as appropriate, such as ICR, PLCR, LLCR and synthetic DSCR;

    (e) Concession tenor or concessions' weighted average life;

    (f) Material exposure of operations in sub-investment grade countries; and

    (g) Balance sheet flexibility.

2) Business diversification in non-core infra businesses: For transactions featuring EBITDA that is generated by multiple transportation assets in different sectors, potentially in addition to other non-transportation sectors (for example, construction), Fitch may use an EBITDA-based weighted average to derive the rating sensitivities based on the guidance tables from the relevant transportation sectors;

3) It is unlikely that corporate-like infrastructure issuers will be rated higher than in the 'A' category;

4) Where coverage/DSCR may infrequently be relevant to corporate-like infrastructure issuers, it is possible that Fitch may apply higher thresholds depending on the assessment of issuer volatility and level of protections in the debt structure;

5) Please refer to the Key Rating Driver Assessments for Transportation section above, and appendices D and E for guidance on assessment of volume risk under the five-point scale, adjustments to metrics guidance and the definition of corporate-like infrastructure issuers versus Project Finance-like entities.

[5] The coverage guidance applies to DSCR, minimum loan life coverage ratio (LLCR), or project life coverage ratio (PLCR), calculated excluding extraordinary outliers.

### Ports Sector-Specific Metrics

This criteria report covers a wide range of port facilities. As a result, metrics used are dependent on both the asset type and the debt structure and security package employed. In addition, when relevant, Fitch will review some combination of the following when determining ratings:

(a) **Net Debt/Regulated Asset Base:** This is a ratio of the project or transaction's net debt position to its value of net invested capital for regulatory purposes.

(b) **Minimum Annual Guarantee (MAG) Contribution and Coverage:** This represents the contribution of MAGs to total operating revenues and share of debt obligations covered by MAGs. High levels of MAGs or contracted revenues can provide a view on stability of cash flow that should be unaffected by market volatility, assuming contract provisions are honoured through a downturn.

## Appendix D: Adjustments to Metrics Guidance Tables Based on KRD Assessments

The guidance tables shown under Appendices A, B and C are constructed assuming midrange assessments for price risk, infra renewal and debt structure for project finance-like issuers. For corporate-like infrastructure issuers, debt structure is assumed to be midrange/weaker. Should the assessments of price, infrastructure renewal and debt structure differ from the default assumptions, the metrics guidance in the above tables will be adjusted as below:

### Adjustments to Metrics Guidance Tables Based on Assessment of KRDs Other than Volume

| KRD | Stronger | Midrange | Weaker |
|---|---|---|---|
| **Price risk** | One row above the relevant guidance | No adjustment | One row below the relevant guidance |
| **Infra renewal –** PF/US public sector entities | DSCR: down, by up to 3–5 bp<br>Leverage: up, by up to 0.5x | No adjustment | DSCR: up, by up to 3–5bp<br>Leverage: down, by up to 0.5x |
| **Infra renewal –** corporate-like infrastructure issuers | DSCR: down, by up to 3–5 bp<br>Leverage: up, by up to 0.2x | No adjustment | DSCR: up, by up to 3–5bp<br>Leverage: down, by up to 0.2x |
| **Debt structure –** PF/US public sector entities | DSCR: down, by up to 3–5 bp<br>Leverage: up, by up to 1x[a] | If no 'weaker' sub-factor assessments: No adjustment<br>If any 'weaker' sub-factor assessments are present, 'weaker' adjustments column applies[a] | DSCR: up, by to 10bp (ie, up to one row)<br>Leverage: down, by up to 3x (ie, up to one row)[a] |
| **Debt structure –** corporate-like infrastructure issuers | DSCR down, by up to 3–5 bp<br>Leverage: up, by up to 0.5x | No adjustment | No adjustment |

[a] Adjustment depends on the Debt Structure sub-factor assessments
Note: Project finance-like entities include US municipal issuers or US public transportation enterprises.
Note: If no specific proposals have been made by the analyst, the committee may aggregate relevant adjustments once the overall assessments have been made
Source: Fitch Ratings

1) Should price risk be scored stronger, the metrics for the assessment score one level above, as in the guidance table, may be applied;
2) Should price risk be scored weaker, the metrics for the assessment score one level below, as in the guidance table, may be applied;
3) If volume/price is high stronger/stronger, the guidance might be increased by up to 2x of leverage above, or be reduced by up to 0.1x coverage below, the guidance set for high stronger/midrange so as to reflect the stronger price assessment in the indicative metrics guidance;
4) Should infrastructure renewal be scored stronger/weaker, the leverage guidance may be adjusted up/down, and the coverage guidance may be adjusted down/up;
5) Should "debt structure" for leverage project finance-like entities guidance not be assessed as at least Midrange, the leverage guidance may be adjusted down and the coverage guidance may be adjusted up;
6) Should "debt structure" for corporate-like infrastructure issuers be assessed at stronger, the leverage may be adjusted up, by up to 0.5x, and coverage down, by 3–5bp;
7) Potential adjustments for infrastructure renewal and debt structure assessments are made if the risks cannot be readily captured in the rating case;
8) If volume/price is assessed as weaker/weaker, the indicative metrics guidance may be less relevant. However, the indicative guidance may still be adjusted based on an analytical judgement call.

# Appendix E – Definition of Corporate-Like Infrastructure Issuers Versus Project Finance-Like Entities

## Definition of Corporate-Like Infrastructure Issuers

Fitch defines issuers as corporate-like infrastructure issuers if any of the following are present:

(a) Ability to re-leverage with minimal limitations;

(b) Material M&A risk, without controls or limitations;

(c) No ring-fencing; and

(d) No security package (by definition corporate unsecured).

### Corporate-Like Infrastructure Issuers Decision Table

| | Project Finance Issuers | Corporate-Like Infrastructure Issuers |
|---|---|---|
| **Factor 1 – Ability to releverage** | Covenant limiting additional indebtedness, for example, a leverage-based limit | No or very loose limitations on additional indebtedness – no leverage-based covenant, or a leverage-based covenant not set at meaningful levels (ie set at very high levels) |
| | Requirement for lender approval in order to issue additional debt/increase leverage | No requirement for lender approval in order to issue additional debt/increase leverage |
| | Ratings test in order to issue additional debt/increase leverage | No ratings test required to issue additional debt/increase leverage, or ratings test allows rating to be below the current rating level. |
| | Default or dividend lock-up set at a meaningful level | No default or dividend lock-up or covenants set at a very loose level |
| **Factor 2 – Ability to make acquisitions** | Clear and stringent restrictions on acquisitions | No or very loose restrictions on acquisitions |
| **Factor 3 – Ring-fencing** | Comprehensive and strong ring fencing of assets | No ring-fencing of assets |
| **Factor 4 – Security package** | Comprehensive and strong security package | No or limited security package/weak negative pledge |
| **Factor 5 – Other structural features may act as an indicator of PF or infrastructure company debt structure** | Fully amortising debt structure/no refinancing risk | Significant and concentrated maturities or debt amortisation longer than assets/concession life |
| | Exhaustive and robust covenant package (eg, such as reporting requirements, maintenance minimum requirements, hedging requirements) | No or very limited covenant package |
| | Dedicated debt service liquidity | No liquidity line, committed corporate-style liquidity line supporting interest payment, no DSRA or dedicated issuer level liquidity |

When and if the combination of factors at the table above does not clearly suggest whether the entity is a Project Finance or a corporate-like infrastructure issuer, Fitch may consider adjusting its metrics guidance to capture the hybrid nature of the entity in question. Project finance-like entities include US municipal issuers or US public transportation enterprises.
Source: Fitch Ratings

# Appendix F – Main Variables in Fitch Cases

## Main Variables in Fitch Cases

| | |
|---|---|
| **Traffic/volumes** | Assumptions reflect i) historical performance; ii) regional traffic/volume patterns (when available); iii) number of years of operation; iv) T&R report analysis (when available); v) Fitch public finance expectations for regional economic/demographic trends; and vi) will be checked against Fitch Global Economic Outlook assumptions for key drivers (GDP, private consumption). |
| **Tariff increases** | Assumptions reflect concession terms, inflation assumptions (see below), concessionaire and authority track record at implementing/allowing toll increases as relevant. |
| **Opex** | Fitch will assess the project's opex profile as validated by the IE when applicable, also considering the project's historical opex performance, programmed efficiency gains as well as inflation expectations. |
| **Capex** | Fitch will assess the project's capex profile as validated by the IE (when applicable), also taking into account the project's historical capex performance as well as inflation expectations. |
| **Inflation** | Fitch's Global Economic Outlook used for near-term assumptions, extrapolated forward into long-term. |
| **Rating case** | Traffic/volume, tariff/price, interest rates and opex stress assumptions will be applied to the extent appropriate, If there is a material risk exposure to significant planned capital works, an additional capex stress may also be incorporated. |

T&R – Traffic and revenue. Opex – Operational expenditure. IE – Independent engineer.
Note: While the types of variables that Fitch will consider when forming the Fitch base case and rating case will be broadly the same within the same sector for different types of mature transportation entities, it is probable that the perceived exposed risk to downturn, volatility or shock in these variables could differ by project type. As such, Fitch is likely, all else being equal, to apply more stringent stresses in its base and rating cases for transportation assets with higher volume risk exposure and more limited ability to raise prices than it is to large established assets or networks with lower volume risk and higher perceived ratemaking flexibility
Source: Fitch Ratings

## Appendix G: Application of Criteria for Managed Lanes Projects

Volume risk analysis is conducted in two parts. The volume characteristics of the corridor are first considered as a whole, and then managed lane (ML) characteristics are considered separately.

### Corridor Volume Risk

Analysis of the underlying traffic demand for the corridor as a whole, and volatility of such demand over time is important as it is congestion in the corridor — not just the priced MLs — that ultimately drives demand for MLs.

### Managed Lanes Revenue Volume Risk Factors

| Assessment | Revenue Risk — Corridor Volume | Revenue Risk — Managed Lanes Characteristics |
|---|---|---|
| Stronger | • Proven resilient corridor traffic base with relatively low volatility.<br>• Near monopolistic characteristics (e.g. an essential road with a large commuter base, limited competing roads, or other modes of transportation).<br>• Large and robust MSA with strong socioeconomic trends. | • Inherent volatility in managed lanes traffic and revenue is inconsistent with a "stronger" risk assessment. |
| Midrange | • Proven corridor traffic base with moderate volatility.<br>• A relatively large percentage of commercial or discretionary traffic; an essential road facing some degree of competition from competing roads or other modes of transportation.<br>• Midsize MSA with solid economic underpinnings. Moderate growth area or growing region with some dependence on future development. | • Proven ML traffic base with relatively moderate volatility. Price elasticity of demand of toll increases is demonstrably low to moderate.<br>• Moderate exposure to exempt vehicles (including scenarios in which compensation is received for exempt vehicles).<br>• Moderate to high levels of congestion during peak commuting periods (including shoulder periods), but relatively free flowing conditions during other time periods. Limited two-directional congestion.<br>• Efficient configuration. Moderate capture rates considering the configuration of the road. Moderate average trip distances as compared with the full length of the project. |
| Weaker | • Corridor traffic with limited or no history; relatively high volatility.<br>• A large percentage of leisure or single purpose traffic; meaningful competition or expansion of competing facilities; or greenfield projects.<br>• Small MSA with below average wealth levels and stagnant to decreasing socioeconomic trends. | • Lack of demand history. Unproven or prolonged weak ramp-up period. High volatility to economic shocks and relatively high seasonal volatility. Untested or demonstrably high price elasticity of demand.<br>• Loose free access and other policies governing access to MLs that prevents pricing as an effective means of control of access to MLs and limit revenue potential.<br>• Configuration (in terms of entry/exit points and ramps/reversibility and barriers) that inefficiently correlates with congestion points and traffic patterns, underuses highway connections and ultimately discourages usage or encourages violations or both. Increase in free GPL capacity that would meaningfully improve GPL flow eliminating congestion levels over a medium to longer term.<br>• Low levels of congestion even in the peak periods. Low capture rates considering the configuration of the road. Very low average trip distances as compared to the full length of the project. |

ML – Managed lane. GPL – General purpose lane
Source: Fitch Ratings

### Managed Lanes Characteristics

Fitch considers a number of ML characteristics. The most influential include ramp-up performance, traffic volatility, and exposure to high occupancy vehicles. Other factors include the efficiency of the ML configuration, peak hour congestion, and peak hour toll rates per mile.

### Assessing Overall Volume Risk

For ML projects, the overall Revenue – Volume Risk KRD assessment is determined by assessing the combined effect of the corridor volume risk and ML characteristics scores, which determine the overall volume risk assessment. In practice, Fitch would expect few ML facilities to achieve a revenue – volume risk score of stronger, because, in most cases, it will be difficult to achieve an ML characteristics score of above midrange.

### Assessing Price Risk

Price risk analysis is mostly comparable with that of standard toll roads, focusing on the toll-setting framework and legal and political flexibility to adjust tolls.

### Infrastructure Development and Renewal

Fitch's approach to infrastructure development and renewal is explained in the *Infrastructure and Project Finance Rating Criteria*.

### Debt Structure

Fitch's approach to debt structure is explained in the *Infrastructure and Project Finance Rating Criteria*.

### ML Base and Rating Cases

For more information relating to the base and rating cases, please refer to the Base Case, Rating Case, and Stresses section earlier in the report. ML projects will be analysed using Fitch's indicative metrics guidance for toll roads. However, in Fitch's view, ML projects would need significantly greater levels of debt service flexibility or structural liquidity than standard toll roads to allow project debt service obligations to be met (or deferred) during a prolonged or more severe ramp up, or during cyclical downturns.

## Appendix H: Application of Criteria for Standalone-Financed Car Rental Projects

This appendix highlights risk factors related to the revenue profile, debt structure considerations. Car rental projects will be analysed using Fitch's indicative coverage metrics guidance for airports. In the event that a financing links the pledge or availability of customer facility charge (CFC) revenues to the completion of the facility, completion risk factors outlined in the Completion Risk Rating Criteria would also apply.

### Car Rental Volume Risk

Volume risk is the primary credit concern as the level of rental car transactions and revenue generation is closely linked to enplanement volumes and expectations for future growth.

### Assessing Price Risk: Rate-Setting Framework

Both legal and economic limitations for establishing or resetting the CFC rate are considered, as is the extent to which CFC rate increases are forecast to be necessary.

### Car Rental Financings/CONRACs — Revenue Risk Factors

| Assessment | Revenue Risk — Volume | Revenue Risk — Price |
|---|---|---|
| Stronger | • Larger underlying airport passenger base, with clear positive trends in destination traffic<br>• Broad rental car participation (i.e. 10 or more rental car brands) with fairly low concentration from a single brand operator (i.e. less than 40%)<br>• Lower rental car transaction volatility with historical and prospective peak-to-trough decline below 10%<br>• Established balance of rental car demand for business and leisure, or a premier leisure destination<br>• Minimal competition from off-airport rental car operators or alternative ground transportation options | • Full local flexibility and demonstrated willingness on charge-setting authority with no or very limited pricing caps<br>• Ability to charge rental car operators additional amounts (i.e. contingent rent) to meet facility costs in a timely manner<br>• CFC rates are set to be sufficient at outset of financing of project with little or no projected increases in Fitch's rating case |
| Midrange | • Midsize underlying airport passenger base, with largely s table trends in destination traffic<br>• Moderate rental car participation (i.e. 5–10 rental car brands) with some concentration from a single brand operator (i.e. 40% or more)<br>• Moderate rental car transaction volatility with historical and prospective peak to trough decline of 10%–20%<br>• Balance of rental car demand for business and leisure with some exposures to seasonality or cyclicality<br>• Moderate existing or potential competition from off-airport rental car operators or alternative ground transportation options | • Some constraints to charge-setting authority or subject to pricing caps by either ordinance, local or state regulations, or subject to some political or management willingness to maintain or raise rates<br>• Ability to charge rental car operators additional amounts (i.e. contingent rent) subject to some contractual limitations, to meet facility costs in a timely manner<br>• CFC rates likely to require moderate increases (i.e. at or near inflation) over debt term to support rising debt and/or operating project costs in Fitch's rating case |
| Weaker | • Smaller underlying airport passenger base, with risks to volatility in destination traffic<br>• Limited rental car participation with high concentration from a single brand operator (over 50%)<br>• Elevated rental car transaction volatility with historical and prospective peak-to-trough decline above 20%<br>• Rental car demand not well anchored by stable bus lines and leisure users<br>• Material competition already in place from off-airport rental car operators or alternative ground transportation options | • Material economic, political or legal constraints to charge-setting authority, with specific pricing caps by either ordinance, local or state regulators<br>• No ability to charge rental car operators additional amounts (i.e. contingent rent) to meet facility costs in a timely manner<br>• CFC rates likely to require material increases (i.e. above inflation) over debt term to support rising debt and /or operating project costs in Fitch's rating case |

Source: Fitch Ratings

### Infrastructure Development and Renewal

Fitch's approach to infrastructure development and renewal is explained in the *Infrastructure and Project Finance Rating Criteria*.

### Debt Structure

Fitch's approach to debt structure is explained in the *Infrastructure and Project Finance Rating Criteria*.

### Financial Profile

Fitch evaluates a project's ability to service debt under base and rating-case scenarios. In determining a rating, Fitch will evaluate the qualitative attributes described above in conjunction with the financial metric outputs of the developed scenarios, comparing with peers as part of its analysis. Fitch will also evaluate the strength of the project's balance sheet to assess its financial flexibility in response to short- and medium-term shocks.

### Fitch Base Case, Rating Cases and Stresses

For more information relating to the base and rating cases, please refer to the cases section earlier in the criteria report.

### Indicative Rating Ranges

Standalone CFC financings will most likely fall within the 'A' or 'BBB' categories, reflecting the demand-driven nature of the financing structure, and the narrowness of the pledged revenue stream with a lack of recourse to the airport's general revenues and reserves.

### Metrics

The primary metric considered in rating CONRAC projects is the DSCR though other metrics (net debt/CFADS, others) are also evaluated.

### Models

Fitch uses the GIG AST Model in the analysis of CONRACs. The Models section in the *Infrastructure and Project Finance Rating Criteria* provides a description of this model.

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