

## Guidelines for Rating Start-Up Toll Roads

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July 17, 1997

### Overview

Transportation projects operate in a competitive environment; therefore, Fitch bases its analysis of start-up toll roads on project demand. Historically, the primary causes of default on toll road bonds have been competing free alternative routes built after the construction of the start-up toll road, a lack of roadways connecting the toll road to the overall traffic network, and traffic and revenue feasibility reports based on overly optimistic socioeconomic assumptions, among various other inaccuracies. The demand for the project is embedded in many different variables, including pricing, competition, and the service area's economy. Tangential to these analytic fundamentals is political risk, which can assume diverse forms throughout the three major stages of the project's life — the development phase, the construction phase, and the operating phase.

Each stage contains its own risks. However, these risks are interrelated in a successful project. This is why Fitch's analysis of bonds that are not typically issued until construction is ready to begin includes an assessment of how certain risks have been allocated during the development phase. If not properly allocated, several critical risks during the construction phase can delay the project and/or inflate costs, thus jeopardizing the timely payment of debt service during the operating phase.

In addition, because start-up toll roads are generally nonrecourse projects — where bonds are payable solely from toll revenues generated by the operation of the road — Fitch emphasizes the allocation of risks to those parties best suited to support them. Fitch also looks at the sharing of risks among different project participants as a way to further mitigate financing uncertainties.

Occasionally, the pledged revenue stream available to pay debt service includes sources other than tolls, such as fines, fees, and taxes. A more diversified revenue stream is usually considered a stronger payment source, as is a first lien on revenues. Likewise, legal provisions should prohibit the diversion of revenues for purposes other than those related to the operations and maintenance of the road and the payment of debt service or provide for a sufficient level of debt service coverage before any such diversion can occur. Debt issuance should be restricted to the debt needed to build the roadway or include satisfactory tests for additional debt issuance.

While the single-site project risk intrinsic to start-up toll roads is inconsistent with the 'A' or better rating categories, well structured projects with a plausibly substantiated demand factor, satisfactorily executed risk allocation, and adequate legal provisions can achieve investment-grade ratings. It is highly unlikely that a start-up toll road in an international setting would be rated above the sovereign ceiling.

## Development Risks

The two paramount preconstruction risks are acquiring the right-of-way for the roadway and the power of eminent domain. If the right-of-way for a project is not predominantly assembled before construction, and power of eminent domain is not vested with the appropriate party, the potential for completion delay is open-ended. Also, the actual condemnation process must be examined because it can vary considerably, depending on the jurisdiction, and can also cause significant delays.

Fitch further requires that all environmental permitting for the project be obtained before the onset of construction; there have been historical precedents where not only was environmental permitting significantly delayed, but certain necessary permits were simply never issued, thus aborting the project. Inherent in all environmental permitting is litigation risk, which can add greatly to the time and cost of a project. Delay risk can be adequately mitigated by varying combinations of contingency reserves, capitalized interest, and insurance, depending on the project's circumstances.

Solid public support for a project must be evidenced during the development phase to guard against political backlash and change of law in subsequent phases of the project. Such support is usually accomplished by a consen-

### Development Risk Checklist

- Right-of-Way Acquisition
- Power of Eminent Domain
- Condemnation Process
- Environmental Permitting
- Political Consensus

sus-building political champion for the project. If any of these preconstruction risks are not adequately addressed, the project's ability to procure financing is greatly impaired, and the associated development costs are often lost by the project sponsor.

## Construction Risks

Completion risk should be addressed with a construction contract that guarantees timely completion at a fixed price. The contractors providing the contract should have local expertise as well as experience in similar projects. Fitch also separately assesses the contractors' ability to meet their financial obligations under the contract. The contract is evaluated based on the strength of its components, such as the liquidated damages provisions and, conversely, early completion incentives, the length of any warranty period, and the method of payment to the contractor, which should be tied to construction progress. Conflict resolution procedures and permissible change orders should be carefully outlined. An extensive builders' risk insurance policy should be included with multiple coverages for performance, property, and casualty.

### Construction Risk Checklist

- On-Time and On-Budget Completion Contract
- Financially Solid, Experienced Contractors
- Insurance Coverages
- Force Majeure Events
- Quality Project

Risks not covered under the contract, which, most importantly, usually include force majeure events, should be mitigated sufficiently through insurance, reserves, and/or capitalized interest. Force majeure insurance often has high deductibles and premiums. As such, in certain cases, it is preferable to include about 10% contingency reserves (beyond those built into the contract) that can be used for other "event" risks that can cause cost overruns. Capitalized interest can also be used as a hedge against delays in construction. Both reserves and capitalized interest must be invested in Fitch-eligible investments.

In addition to a strong contract provided by solid, experienced builders, Fitch emphasizes the competence of all design and construction engineer managers hired to oversee the project's progress. This assures a quality project that is in compliance with government standards, which, in turn, lends credibility to the operations and maintenance costs assumed during the operating period. In some cases, a governmental unit will take responsibility for the operations and maintenance expenses. This augments the security for the bonds by not impinging on the pledged revenue stream, which can then be used exclusively for debt service.

## Operating Risks

The first several years of operations are the most critical for a start-up toll road. This “ramp-up period” is the initial acceptance phase for the new facility. Because the length of the ramp-up period is difficult to gauge, structuring techniques, such as a steeply ascending debt service schedule and capitalized interest beyond the projected opening date, are commonly used to mitigate the risk of revenue shortfalls in these early years. Recent experience has shown a tendency to underestimate the length of the ramp-up period, as well as to overestimate the amount of commercial traffic on certain facilities.

When examining the pricing risks of a start-up toll road, the central question is which party has the authority to raise toll rates. This authority is best granted solely to the toll road operator. However, if a regulatory body is required, that body’s record in granting rate increases should be satisfactory. In addition, the projected payment of debt service should not rely on assumed toll increases beyond a reasonable inflation factor. The acceptance of toll levels varies considerably by region and by country. So, while comparisons of cost per mile or cost per kilometer can be useful, they are sometimes misleading.

Traffic demand forecasts and revenue projections serve as the basis for assessing the economic feasibility of a start-up toll road due to the lack of revenue history. Fitch requires that traffic and revenue forecasts be prepared by qualified professionals in the field and that the original forecasts are reviewed by equally qualified professionals in the field. In fact, the toll road feasibility study is of such predominant importance to the overall evaluation of start-up toll roads that Fitch has interviewed several of the leading traffic feasibility consultants to determine what contributes to a reliable study. The general consensus is that adequate socioeconomic forecasts serve to inform the best traffic studies.

Also cited as important components are adequate time and budget to conduct the appropriate methodology necessary for studies used in bond financings. Actual traffic surveys, as well as adequate information on the potential development in the traffic corridor and on the timing and placement of new roads, road improvements, and competing facilities in the area are also essential for a complete study.

In addition, where toll facilities have been part of the jurisdiction’s history, information on the acceptance of these tolls provides a context for toll sensitivity analysis by the consultants. Nonetheless, Fitch subjects all traffic and revenue studies to stress test analyses using various deteriorating economic scenarios to judge the latitude between the forecast level of revenue and scheduled debt service payments. Projected debt service coverage levels generally should be 1.5 times or higher to withstand “worst-case” stress scenarios.

## Operating Risk Checklist

- Ramp-Up Period
- Toll Rate Administration/Toll Acceptance
- Expenditure and Maintenance Control
- Reliable Traffic and Revenue Feasibility
- Flexible Service Area Economy

The elasticity of demand for a given toll road is further appraised by examining the purpose of the road and the economy of the service area it will serve. New toll roads are usually built to stimulate development or alleviate congestion on existing roadways. Toll roads built to stimulate development are generally riskier because the timeline for development is extremely unpredictable and highly dependent on economic cycles. Traffic forecasts for reliever toll roads can measure the overall traffic in the area and deduce what percentage would be likely to pay a toll for time savings or other perceived benefits. The willingness of the populace to accept toll levels is extremely important; the higher the wealth levels in the service area, the less of a factor this becomes. Likewise, other economic measures are meaningful to start-up toll road analysis. Fitch looks at population, households, car ownership, employment, and other demographic data to judge an area’s economic health and flexibility. Fitch also requires a site visit to the area’s proposed roadway corridor.

## Sovereign Risks

When Fitch rates an international start-up toll road, a credit analysis of the underlying sovereign government is an integral part of the process. Many of the risks and issues described above are defined in a concession agreement between the sovereign government and a private consortium formed to build, finance, and operate the toll road. Therefore, the analysis of the concession agreement, along with all other legal documents governing the transaction, is an important part of the rating process. Fitch evaluates various sovereign risks, including:

- Expropriation of the issuer or its property or repudiation of its debt.
- Declaration of a moratorium or similar prohibitions or restriction against any payments on external debt.
- Deterioration of the general business and economic environment.
- Detrimental regulatory actions.
- Civil unrest, including social and labor disturbances.
- Deterioration in the value of the sovereign’s currency in relation to the currency in which the issuer’s debt is denominated.
- Imposition of exchange controls or similar actions that could limit convertibility of the sovereign’s currency.

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