



# Using Toll Revenue Forecasts for Highway Investment Decisions

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## Slide 1

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*Alternatively:*  
**Making Highway Investment Decisions In Spite of  
Toll Road Forecasts**

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## Slide 2

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## Can't Live With Them, Can't Live Without Them

- > Forecasts are a key input into determining credit quality
- > However, forecasts provide a sense of magnitude, but not certainty
- > Risk of aggressive assumptions to demonstrate comfortable margin for meeting debt service obligations
- > While lessons learned are being incorporated into new forecasts, meaningful improvement non-existent
- > More flexible financial structures essential to compensate for forecasting risk



## General Performance

- > Few have exceeded forecast
- > Most have not
- > Less than expected performance can be significant with actual results for some facilities equaling 40-60% of forecast
- > Success is usually based on ability to maintain credit ratings, not forecast accuracy
- > Being too high hurts lenders
- > Being too low also has its downside as in retrospect it would have required less public sector subsidy or a higher premium



## Common Threads

- > Use of travel demand models initially developed by regional planning bodies for long range studies
- > Inherent model error
- > Model input risk (demographic projections, value of time, land use, etc.)
- > Toll elasticity curves unreliable indicators of rate-making flexibility
- > Simplified conversions for weekend and truck traffic
- > Ramp-up is just a broad approximation
- > Steady state assumptions (economic cycles are not reflected)
- > Combined downside sensitivities never developed
- > Increasing competitive strength and/or user's willingness to pay over time not adequately reflected



## Varied Approaches to Credit Analysis

- > Statistical adjustments based on track record
- > Stress-testing by country or sponsor
- > Both unsuitable given limited statistical significance of dataset
- > Ignores unique characteristics and complexity of projects



## Fitch's Approach to Assessing Forecasting Risks

- > Evaluate basis/source for underlying regional economic, demographic projections and traffic model
- > Review existing traffic conditions relative to opening year assumptions
- > Review reasonableness of screenline market share in opening year and over time relative to comparable facilities
- > Potential transportation network changes that may contribute to/or detract from the toll road
- > Moderate growth rates if high dependency on future development
- > Develop more standard traffic growth rates over the medium- to long-term relative to expected economic and demographic trends and peer facility performance



## **Fitch's Approach to Assessing Forecasting Risks (Contd.)**

- > Evaluate frequency and magnitude of toll increases assumed relative to inflation and management's stance towards tolling
- > Traffic forecasting firm's prior experience and track record
- > Apply combined downside sensitivity:
  - five-year recession (or development lag)
  - 25 to 75% lower value of time
  - Slower ramp-up
  - Much higher fuel costs
  - Accelerated completion of competing facilities



## Structural Protections Critical to Achieving Investment Grade Ratings

- > Forecasts alone are too imperfect to justify an investment grade rating
- > Recognizing that forecasts do provide a sense of magnitude, they can in combination with stress testing, comparisons to other similar facilities, structural enhancements and external credit enhancement facilitate the achievement of investment grade ratings
- > Internal liquidity (ramp-up, debt service, supplemental reserves)
- > Lower leverage (public, private equity)
- > Flexible debt structures (interest accretion, capital appreciation bonds, flexible principal repayment, bullet maturities, staggered maturities, deeply subordinated debt)



## Conclusions

- > While a key input in determining a toll road's credit quality, traffic and revenue forecasts only provide a general magnitude of potential demand
- > Fitch assesses forecasting risk on a project by project basis
- > Although forecasting procedures are evolving, uncertainty remains a significant issue for start-up, greenfield projects
- > Highly leveraged existing toll roads present similar challenges with 50-99 year concessions
- > HOT/Express Lanes take this risk to a higher level



## Global Credit Shock – Impact on Toll Road Credits

- > Widening of credit spreads
- > Compression/Volatility of SIFMA/LIBOR rates
- > Adverse credit environment of monoline bond insurers
- > Lack of understanding of underlying credits by some investors
- > Auction rate market meltdown
- > High demand for bank liquidity – higher premiums
- > Negative mark-to-market on swaps
- > Generally high investment grade credit quality of munis has been a plus
- > But, potentially adverse economic environment ahead (fuel, inflation, employment)
- > Safety valve – toll increases – but will public sector management act?



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