



Private Finance of Public Sector Infrastructure

Transportation Research Board: Annual Meeting

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The United States has a growing need for capital to invest in transportation facilities.

Could private sector investment work for public infrastructure?

Public Sector Cost

- Opportunity cost of investment
- Operating cost
- Renewal cost
- Risk

Private Sector Price

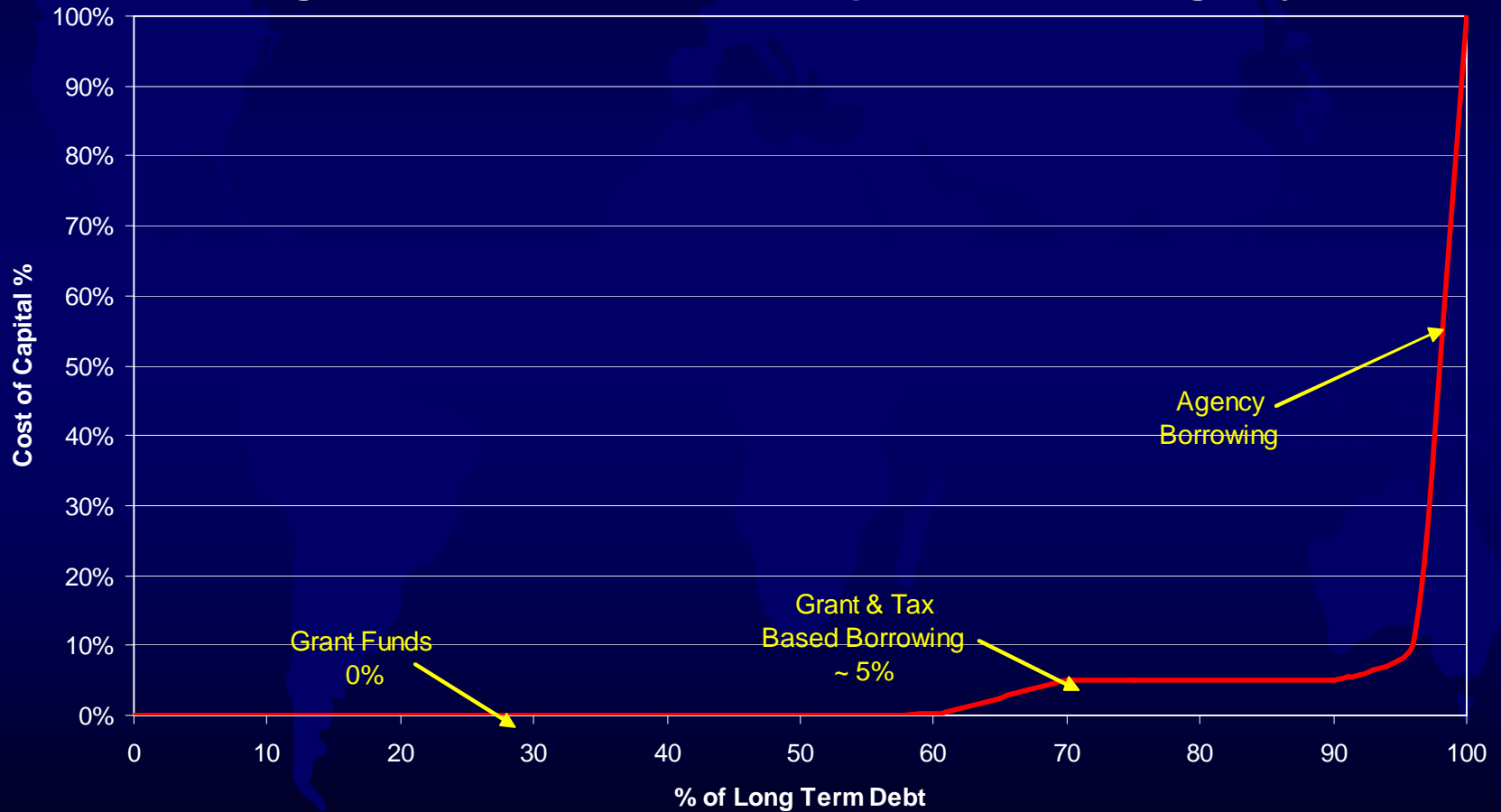
- Financing cost
- Operating cost
- Renewal cost
- Risk

Private Sector Cost of Capital

	UK Railtrack 2000	US Class I RRs 2001	Private Operator
Capital Structure			
Debt	50%	41.8%	70%
Equity	50%	56.0%	30%
Preferred	na	2.2%	na
Cost of Capital			
Debt	7% - 7.25%	6.9%	7.25%
Equity (after tax)	9.4% - 10.7%	12.8%	13%
Preferred	na	6.3%	

Transit Agency Cost of Capital

Figure 1: Illustrative Cost of Capital for Transit Agency

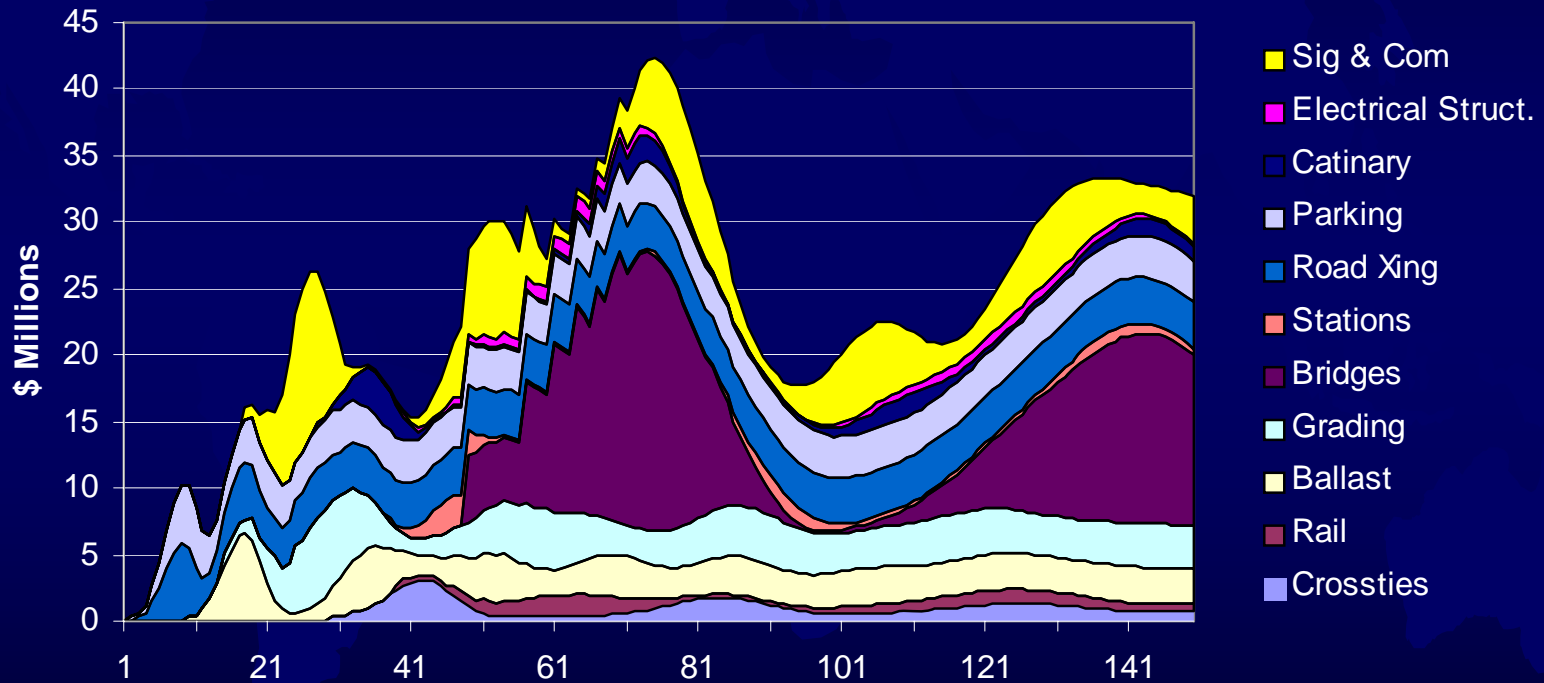


Operating Costs

- Assumed transit agency costs of \$10 million/yr.
- Based on previous economic analysis, we believe private sector could operate 40% cheaper: lower overheads, less expensive labor.
- While big percentage, cost difference (\$4 million) is very small compared to cost of financing the investment.

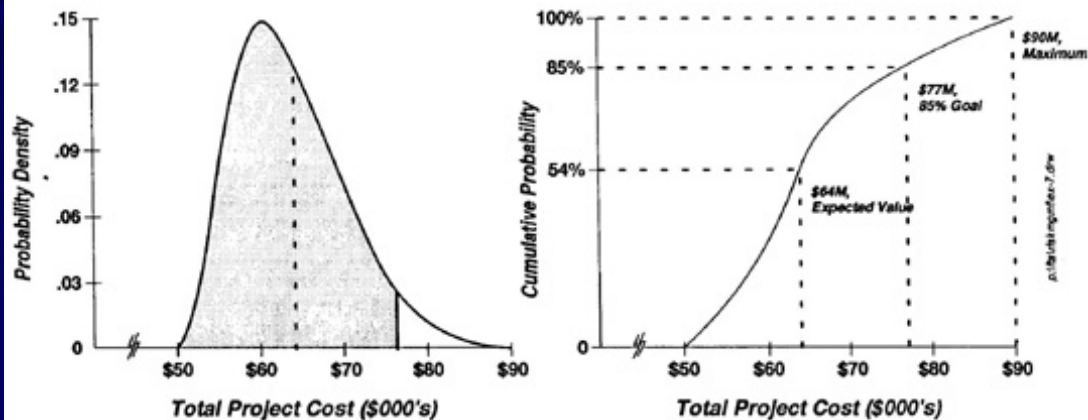
Renewal Cost

Asset Renewal Costs - Without Inflation



Risk

EXHIBIT 2-2
Example of Probabilistic Risk Analysis Output



Minimum	\$50
Mean (dotted line)	\$64
Maximum	\$90

Shaded region represents 85% confidence level.

If Owner's Estimate* = \$60M and an 85% likelihood is desired to avoid a cost overrun, then the contingency amount will need to be valued at:
 $\$77\text{M} - \$60\text{M} = \$17\text{M}$.

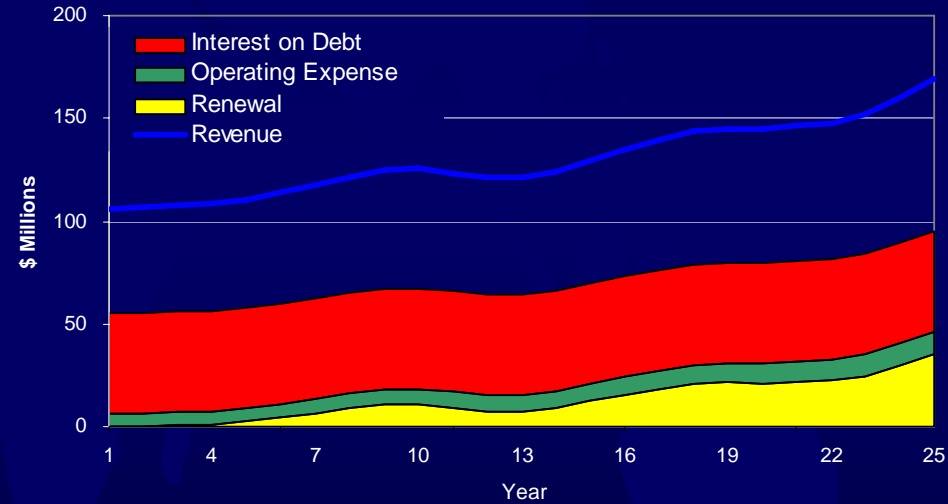
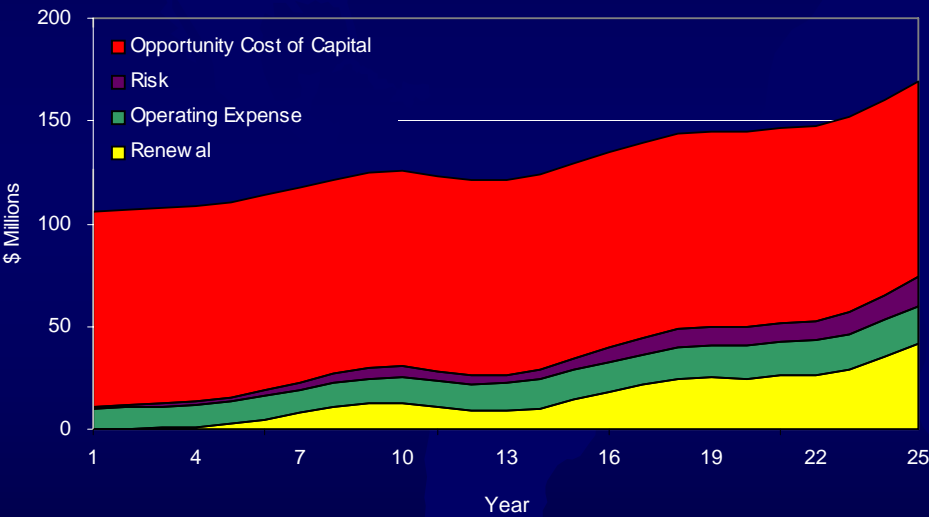
* Cost estimate without contingency.

FTA, Probabilistic Risk Analysis for Turnkey Construction

All Costs, First 25 Years

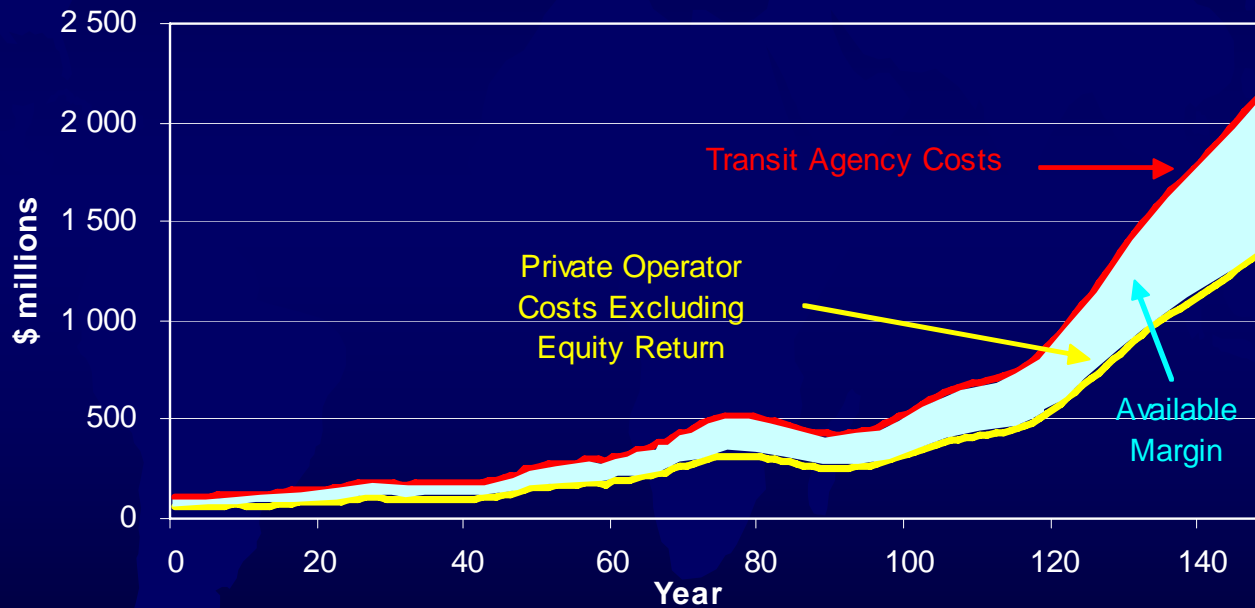
Transit Agency Costs

Private Operator Costs



Margin for Equity Return

Margin for Private Operator Return



Great idea... But how to pay for it?

- The map shows real estate developments around the Hudson-Bergen Line
- There is money here, the question is how to tap the benefits from transit line development to help build/finance it

