

# The Public Purpose

## Commentary

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### ROAD AND RAIL FOR FUN AND PROFIT If Money Grew on Trees....

Things have got to be pretty bad when a respected university professor, having completed an academic study, characterizes the cause of the the ill discovered as "lying." But that is exactly what happened to University of Aalborg (Denmark) professor Bent Flyvbjerg and his colleagues Niils Bruzelius (University of Stockholm) and Werner Rothengatter (University of Karlsruhe).

Dr. Flyvbjerg and his team undertook an extensive review of infrastructure projects ("megaprojects") and concludes that rail and road projects consistency miss their cost and usage projections. Too consistently. So consistently, that Flyvbjerg and his associates attribute much of the problem to "lying" by project promoters who know that lower cost projects have greater chance of approval than higher (honestly) priced projects. The result is a masterful book, *Megaprojects and Risks: An Anatomy of Ambition*, just published by Cambridge University Press. The situation has become so stark that the industry Major Projects Association is quoted to the effect that:

*Too many projects proceed that should not have been done.*



All of this will come as no surprise to observers of transportation projections in the United States, where Boston's "Big Dig" Central Artery is costing much more than promised --- 196 percent more Flyvbjerg and company tells us. Or, where urban rail systems have long been infamous for costing much more than promised and attracting far fewer passengers, as the U.S. Department of Transportation report by Don Pickrell revealed in the late 1980s, again as the authors remind us.

Much of the book is based upon detailed analyses of three projects --- the English Channel Tunnel ("Eurotunnel"), the Great Belt rail-road bridge between the island of Zealand (where Copenhagen is located) and the Jutland Peninsula (mainland Denmark and Europe) and the Oresund road-rail bridge between Copenhagen and Malmo, Sweden. In each of these cases, costs were significantly higher than projected. Moreover, there were difficulties with patronage projections. For example, the high speed rail (HSR) trains between Paris and London were to have carried 15.9 million annual passenger in 1995 (the first year of operation). By the sixth year (2001), ridership was 57 percent lower, at 6.9 million.

Then there was the German Transrapid magnetic levitation ("mag-lev") system, planned to operate between Berlin and Hamburg, which was abandoned by the government after costs rose more than 70 percent and ridership projections were dropped by more than one-half. Similar difficulties are also cited with respect to conventional high-speed-rail routes that have been constructed in Germany.

But Flyvbjerg, Bruzelius and Rothengatter reserve their strongest indictment for urban rail (metros, subways, undergrounds, commuter rail, suburban rail, light rail, trolleys, etc.), which they characterize as "double risk." They cite research noting substantial forecasting errors both in construction costs and ridership.

It will probably come as a surprise to American analysts the worst patronage forecasting error was on other shores. Miami's 85 percent misfire was topped by Calcutta's 95 percent.<sup>1</sup>

The solution, according to Flyvbjerg, Bruzelius and Rothengatter, is reform in the project planning process. Perhaps the most hopeful is removing governments from the role of project promoters (read "cheerleaders"). As the authors remind us:

*Whether we like it or not, megaproject development is currently a field where little can be trusted, not even --- some would say especially not --- numbers produced by analysts.*

In the final analysis, taxpayers and stockholders are poorly served by an infrastructure and consulting community that acts as if "money grows on trees." For them, of course, it does, like the out-of-control teenager given access to the carte blanche of a credit card. This book should be required reading for transport policy makers and officials of firms seeking to develop infrastructure on a commercial basis.

<sup>1</sup> Americans need not feel jealous, however. From 1970 to 2000, US public transit agencies were granted approximately \$21 billion in new subsidies (2001\$), while increasing ridership (passenger kilometers) the equivalent of \$1.5 billion (1970 prices inflated to 2001\$), for a return on new funding of approximately 7 percent (93 percent loss). See [http://www.publicpurpose.com/ut-tr\\$fr1970.pdf](http://www.publicpurpose.com/ut-tr$fr1970.pdf).

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