

THE FATAL FLAW IN THE FINANCING OF PRIVATE ROAD INFRASTRUCTURE IN AUSTRALIA

John L Goldberg
Honorary Associate
School of Architecture, Design Science and Planning
The University of Sydney 2006
NSW, Australia

e-mail: jgoldber@mail.usyd.edu.au

EXECUTIVE SUMMARY

This paper is an analysis of the financial models for three toll road projects in the Sydney region, namely the Cross City Tunnel (CCT), the Lane Cove Tunnel (LCT) and the M2 Motorway (M2). These projects, often called PPP's (public-private partnerships), are representative of all Australian toll roads. With respect to traffic engineering, the models have a common property, namely that the traffic forecasts are correlated more with the financial outcome required than with proper regard for traffic engineering practice. Peak hour congestion is a common property of these forecasts¹. In promoting investment in toll roads this approach to traffic engineering has the advantage that if the financial outcome is adverse, for example a failure to pay the promised equity dividends, then such failure can be wrongly attributed to traffic shortfall.

Financial solvency of these projects is the main matter of concern. Can the long term debt of a project be amortized within the concession period? The answer to this question is revealed by analysis of the financial ratio of cash flow to debt, widely recognised as the key parameter to assess solvency. The methods of mathematical statistics provide a concise method of assessing the probability of solvency for various values of the ratio. It is found that there is zero likelihood that the debt can be amortized. This matter becomes more serious when it is realized that the variables which give rise to the cash flows do not take account of the time value of money. The existence of positive interest rates means that future payments and receipts from all sources are worth less than at present and therefore must be discounted.

The financial models examined in this paper exhibit a considerable amount of creative accounting with the object of distorting and suppressing unfavourable financial outcomes. Here are some examples taken from each model.

- Paying equity dividends with virtually no cash flow available (CCT)
- The introduction of large spurious amounts of debt capital of unknown origin to augment cash flow, and the drawing down of fictional amounts of capital from reserves (LCT).
- The use of dual entries to disguise the non-amortization of project debt (M2).

The mathematical method used in analysing the outcome of these models reveals that creative accounting has not been at all advantageous to the project promoters.

With regard to dividend payments promised to equity investors in models and prospectuses, the toll road promoters specify the returns to investors in terms of a single number IRR, the internal rate of return which is a discount rate. Thus it can be claimed that at least for the

¹ It is readily deduced from the recent Prospectus for the River City Motorway in Brisbane, that the project provides yet another example of this flawed approach to traffic engineering.

case of equity returns, the time value of money is accounted for. But as explained in the text, the returns to equity investors can be specified in two ways: the above-mentioned internal rate of return (IRR) and return on investment (ROI). For the same dividend data over the same period of time, it is found that the value of IRR generally exceeds that for ROI. When compared to the interest rate demanded for servicing the project debt it is clearly more advantageous to use IRR in promoting the project to investors. One finds that this misleading use of IRR is widespread throughout the toll road industry.

Eight years of historic financial data has revealed the extent to which the financial outcome of the M2 Motorway was deteriorating despite having received about 35% of its revenue from interest derived from infrastructure borrowings. In 1999, the owners and operators resorted to a scheme known as "financial engineering" based on revaluation of the asset, well above its true economic worth, in order to provide security for increased borrowings out of which investor returns were paid.

Another prospective method of paying off debt involves securitization. In this case toll roads are grouped together in pairs so that cash flow or asset value of one serves as security for the debt of the other and a new financial instrument is created which is sold through capital markets. Recently, this use of securitization is admitted by the toll road promoters to be a high risk method of financing.

Both the use of financial engineering and securitization tend to emphasize the intrinsic non-viability of toll road projects, a matter clearly not understood by those who have embraced the privatization of roads for ideological reasons. It would be of interest to know if such people approve of the financial manipulation necessary to keep these schemes afloat.

The financial reality of this strategy should start to be appreciated by superannuation funds in the interest of their members. Over eight years of operation, the average return on investment (**ROI**) for the M2 Motorway was only 3.5% pa, whereas the average cost of capital was 11.8% pa over the same period. This example, based on data from the annual reports of The Hills Motorway Group, the owners and operators, emphasizes the adverse outcome of financial engineering.

On the other hand, in 2005 the Macquarie Bank received performance fees amounting to \$91.59m, based on an increase in market capitalization value of its Macquarie Infrastructure Group of \$3355m.

If the government has given a guarantee to the project owners, then the debt becomes a public liability. If there is no guarantee, then superannuation funds may be liable because they have bought units in an arrangement in which a trust is combined with an operating company, capitalized at a low proportion of the total investment amount. It may be believed that limited liability applying to the company may also apply to the trust investors who provide most of the capital or loan funds to the operating company. However, in the event of corporate collapse, a court may decide that this arrangement has been devised to circumvent the provisions of the Corporations Act.

The timely release of the financial models, if objectively analysed, would have revealed the adverse financial outcome of the projects. The contractual arrangements, which in some cases have involved the closure of public roads to compel usage of the tolled facility, would have also been revealed, together with the fee and profit expectations of the private partner. Commercial confidentiality continues to provide the excuse to prevent scrutiny and possible reappraisal of the transport regime of which these toll roads are part.