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Toll Roads: Big Trouble Down Under

IJ Interviews Dr Robert Bain
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Since 2005 a number of Australian toll roads have failed to meet their traffic forecasts leading to project distress and – in some cases – default. Equity providers have lost their investment and distressed debt desks are reportedly trading at discounts of up to 70 per cent. Infrastructure Journal asked international sector specialist Dr Robert Bain – a former director with Standard & Poor's – for his take on events. Rob has recently been working with Federal and State agencies to examine how investor confidence in the asset class can be restored.

IJ: What's the problem?

RB: The problem is that traffic forecasts for Australian toll roads have been manipulated to win concessions and have been used as part of a sales pitch to attract investors. There's a bit of science to traffic forecasting – and a lot of art – but the science is portrayed rather misleadingly as an exact, quantitative discipline with sophisticated models being driven by even more sophisticated maths. Precision is being mistaken for accuracy and numbers are being disguised as facts. I've studied the predictive capability of traffic models for the past decade and their record is not good. That record is not always shared with potential investors.

IJ: And this has resulted in legal action?

RB: Yes. There are now three law suits in Australia where investors are suing traffic consultants. In one, the receiver is suing the traffic consultant and, to my mind, with some justification. For sure, forecasts will be subject to error. We can't predict the future with certainty. But error, by itself, would result in instances of over-prediction and under-prediction. This is not the pattern observed in Australia. Every toll road that has opened since 2005 has underperformed. There is a consistent, systematic tendency for over-prediction. That's not error. That takes human intervention.

IJ: You are acting as an expert witness?

RB: Yes – in two of the suits. Before joining the infrastructure team at Standard & Poor's I spent 15 years as a traffic modeller so I understand the technical issues well. The legal teams knew of my background covering both traffic risk and credit risk. They knew of my academic research in the field. They also knew that for some years I have managed a small, specialist consultancy providing independent reviews of demand and revenue forecasts for big ticket road and rail projects specifically for investors. They felt that these were appropriate credentials.

IJ: So what lessons should institutional investors learn? Should demand risk be avoided?

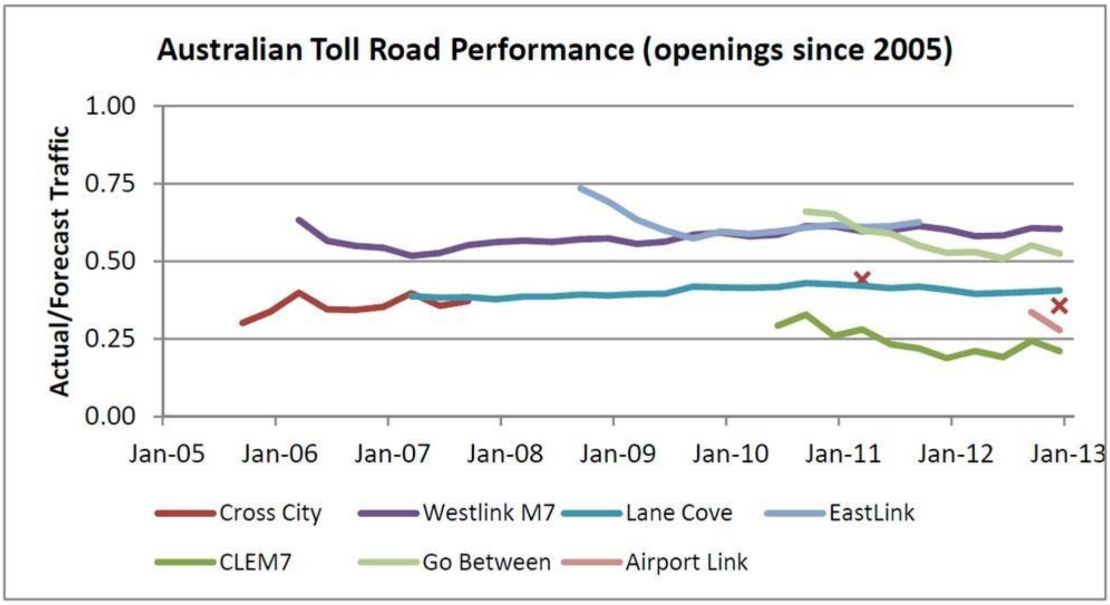
RB: Great care should be taken with demand risk, that's certain – but I wouldn't throw the baby out with the bath water. There are many successful toll roads around the world with happy investors. I work for large Canadian pension funds and US insurance companies and these people have invested heavily in understanding demand risk. Looking at the broader picture, if demand risk is not passed to the private sector it remains with the public sector and I'm not sure that the public sector is any better equipped to manage such risks. Understanding who has prepared the forecasts and for what purpose – that's a good start. And the use of a genuinely independent forecast auditor. These are simple precautionary steps that can and should be taken.

IJ: Surely the purpose of preparing forecasts is obvious? Why would that matter?

RB: Before starting any review I first look to see how the concession is structured and, importantly, how it is to be – or has been – awarded. In Australia, a number of the toll road concessions were awarded to the bidder offering the largest upfront payment to the state. That's a recipe for disaster. Without checks and balances in place the bidding process simply turns into a competition on traffic numbers. Toll road traffic generates revenue, and the largest upfront payments can be justified by those with the highest traffic forecasts. The whole process becomes skewed and the numbers get bent out of shape in response. Considerable pressure is placed on traffic consultants to come up with the 'right' numbers; numbers that meet the requirements of the financial model. So that's where I start.

IJ: Just how bad has the Australian experience been?

RB: Look at the chart (below). As part of my research I compile and update the numbers each month. I present asset performance in terms of a simple ratio; the ratio of actual to forecast traffic. If a road outperforms its forecast that ratio lies above 1. Inevitably, however, the Australian ratios lie below 1 reflecting over-prediction or 'optimism bias'. Cross City Tunnel in Sydney opened in August 2005 and traffic has trended around 35 per cent of the published forecast. The receivers were appointed in December 2006. Westlink M7 opened later the same year with traffic 60 per cent down on forecasts. Next up was Lane Cove Tunnel in Sydney – subject of one of the law suits – with traffic at 40 per cent of forecasted volumes. The receivers stepped-in in January 2010. Then EastLink in Melbourne with traffic off by 40 per cent. Like many, EastLink was the subject of a subsequent distressed sale. The CLEM7 tunnel in Brisbane is the focus for the other law suits. It opened in March 2010 and today traffic stands at less than a quarter of that predicted. The Go Between Bridge (Brisbane: July 2010) is off by over 40 per cent and the most recent casualty, Airport Link (Brisbane: July 2012), struggles at around one-third of its forecast. These are not teething problems or issues relating to ramp-up. This is deep, sustained underperformance. Or, expressed more accurately, it reflects deep, sustained over-prediction.



IJ: And I guess the revenue story is the same?

RB: Not always. The nature of the relationship between toll road traffic and revenue can be complicated. This is another area where my reviews focus. On Westlink M7, for example, traffic volumes were down but the average trip length was higher than expected. Project revenues there are based on distance travelled so the revenue story is better than the traffic one. On others, however, the traffic performance posted has been achieved through discounted tolls so the revenue performance is even worse than the traffic numbers. You have to understand how toll tariffs work and how the tariff schedules apply.

IJ: So will the Australian toll road sector fix itself? Surely investors who have been burned will learn from their mistakes?

RB: Possibly – in the long run. But the Australian Government and state agencies want to move quickly. There are more roads, bridges and tunnels to be built and many of them will be tolled. I've made a series of recommendations to Government about best procurement practices, and redefining their bid evaluation and concession award criteria. These reports are available on my website. Already we've seen the role of the independent forecast auditor being strengthened. This is critical in terms of investor confidence. And I don't just mean investor confidence in Australian toll roads. The financial world is a small one and concerns in one jurisdiction spread quickly to others. The Australian experience has blighted toll roads internationally yet it does not necessarily reflect global trends. Given the right circumstances and appropriate due diligence, road – and rail projects, for that matter – can be attractive long-term prospects for buy-and-hold investors; particularly those looking for portfolio diversification and inflation/duration hedging.

IJ: Thank you Rob.

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Rob Bain has published a book on toll roads specifically for investors and credit analysts. "Toll Road Traffic & Revenue Forecasts: An Interpreter's Guide" retails at £29.95 (€36.00), however subscribers to Infrastructure Journal can enjoy a 25 per cent discount by contacting the author directly (e: info@robbain.com). More information about Rob and his research can be found at www.robbain.com.