

The infrastructure king and the PPP tunnel

“You see,” said the tramp quietly, “there is no blanket covering the painting. This is actually just a painting of a cloth covering a painting. And whereas your famous artist is content to fool nature, I’ve made the king of the whole country look like a clueless little twat”. (Banksy, 2006)

Once upon a time, there was a king who ruled a great and glorious kingdom. It was a much-envied land. The beaches were beautiful, the people friendly and the weather nearly always splendid and warm. So much so the kingdom was known as “The Sunshine Kingdom [1]”. Life was very good, thought the king who lived in the largest of the towns beside a wide, brown river the traditional owners of the land called “Maiwar”.

The King, like all good kings, wanted to keep his subjects happy. When his people were happy, his kingdom was peaceful. In neighbouring kingdoms, there had been tales of many a king overthrown by angry peasants revolting because kings and knights were more interested in looking after themselves than their people. This news was like a Belloc cautionary tale for the King (Belloc, 1907) and since then, his priority had been to ensure he and his knights were listening to the issues of the people and that their kingdom remained the envy of all around.

We have also made ourselves more available and more accountable to the [people] through 47 rectangular table meeting [aka community cabinet meetings]. These are held throughout [The Sunshine Kingdom] about once a month. I require that every member of my [Knights] and their [advisors] must attend these meetings and be available to meet both formal and informal delegations. There is an open forum at every [rectangular table] Cabinet where any member of the public can ask me a question on any topic that is important to them and anyone can walk in off the street and meet with [one of my Knights] without an appointment (Beattie, 2002).

Travellers from across the lands came every day to the kingdom’s main town, BrisBan, but often complained about how long they were stuck in traffic waiting to get to the beautiful beaches. Crossing from one side of the river Maiwar to the other was time consuming and despite building a large gateway bridge downriver, this had not helped reduce the traffic in and around the town. Even the King would often find himself stuck in traffic trying to get to meetings on the other side of the river, especially in the morning and late afternoons. This had become worse as more and more people moved into the kingdom to work. Something had to be done. He called his knights, the local mayor and his advisors to discuss what they could do to solve this new problem they labelled “traffic congestion”.

The mayor proposed that the problem needed a “strategic road network” of interlinking, infrastructure transport projects that would “promote economic and social well-being” (Brisbane City Council, 2004a). The first project he suggested should be a 5 km long, north-south bypass tunnel that would go under the river, diverting traffic that wanted to get from one side to the other but did not need to go through the town centre. His financial advisors quickly whipped out their counting frames and after some frenzied number crunching announced the total project should only cost around \$900m (Brisbane City Council, 2004b). Everyone agreed that this was all in all, a splendid idea. BrisBan had never had a tunnel before – never mind one going under the river! “But how will we pay for this exciting project” said the King? “We do not have that kind of money?” “Never fear, I will seek it, and I will find it!” replied his mayor.



The mayor loved the idea of a new tunnel. He had been an engineer in the King's army before he became mayor and thrilled at the prospect of solving big, logistical transport problems with big, logistical tunnel-building solutions. But he had been elected the previous year by telling the people he would fix traffic congestion without raising any new taxes. If he borrowed the money to build the tunnel, he would have to raise taxes to pay it back. What could he do? He gathered the mayoral advisors who gathered the financial advisors who gathered the investment banking advisors and they set to work finding a way they could fund this new tunnel.

Many days passed and finally the mayor and his advisors came back to the king. They were very excited. "We found it!" said the mayor. "Our investment bankers have discovered a magical new device that can turn roads and tunnels into cash using "sophisticated financial engineering" (Engel *et al.*, 2014), like Rumpelstiltskin spinning straw into gold. It's called a PPP [2] and is shaped a bit like a boot. It works like this. We enter into a partnership with a consortium of builders and bankers who will finance, build, operate and own the tunnel for the next 35 years [3] after which it returns to our balance sheet."

"The main benefit of the PPP is that the consortium will be responsible for delivering the project on time and on budget, reducing the overall cost and construction risk to us. They can do this because they will recover all their costs and still make a profit through the collection of tolls [4]. The consortium uses special consulting firms who create clever models that estimate the number of horse and carts that will use the tunnel. Basically, the more carts they estimate going through, the more cash there is to pay the costs of running the tunnel and bank loans. Which means the more debt they can borrow. This is good for us because the more debt you have in a PPP the less equity you need – so the less money we need to give them in the first place. Which is why all the kingdoms across the land are using them to build roads and tunnels." Everyone was spellbound. It sounded like a fairy tale!

The mayor went on. "But you still need some cash up-front to cover the construction and financing costs because it will take about four years to build the tunnel and obviously there's no income from tolls during this time. So here's another clever bit: they are going to raise this cash by giving everyday people in the Sunshine Kingdom and BrisBan an opportunity to invest in the tunnel! There will be an IPO (initial public offering) of securities, with priority given to the tax-paying residents of BrisBan who also get \$100 worth of free tolls when they buy a little piece of the tunnel (RCML, 2006). How good is that! We get a tunnel worth a billion dollars [5] for everyone to use and get to places they want to go faster. And *we* hardly pay a cent! Everyone will be happy!"

The King and his knights of the rectangular table were amazed and said how clever the bankers and the financial advisors were to discover this shiny, newfangled public-private partnership (PPP) that could turn government infrastructure debt into cash! They were awestruck by its wonder and told the mayor to get to work straight away and make it happen.

Then all of a sudden, from the back of the room a voice was heard. "But what happens if people do not use the tunnel?" There was silence. People looked at each other and then all eyes turned back to the mayor. The mayor scowled, and started to pull at his jabot, annoyed that someone would question him. "Well, we do not have to worry about that. Even though the whole PPP is built around the number of carts going through the tunnel - it's not our problem if they do not. That's its magical power. The owners of the tunnel carry all the traffic risk for the project. It's not our tunnel or our problem till they hand it back to the townsfolk of BrisBan in 35 years' time." There was much head nodding and murmurs of approval from around the room. This might possibly be some kind of financial sorcery, they thought, but what wonderful sorcery it was!

And so, it came to pass. A consortium of builders and bankers [6] calling themselves "RiverCity Motorway" (RCM) won the tender to build the tunnel. This was announced by the

mayor with much fanfare and trumpets. The builders soon set about planning how they would dig through the rock under the river and the bankers started talking to other bankers about how to raise the cash and debt needed to cover the rising costs, which was now estimated to be \$2.8bn. But the mayor was very reassuring and reminded everyone not to worry about the cost. "The cost is offset by much higher projections of traffic using the tunnel, and we've extended the term of the toll period from 35 to 45 years" (Corkill, 2006).

Raising the debt needed proved very easy for the bankers, as this was the year 2006. A time long past when banks were awash with cash and constantly looking out for opportunities to get a return on their capital. Raising money from the people of BrisBan also proved very successful for the consortium of builders and bankers. The IPO was fully subscribed, giving them \$690m in cash. Many of the mums and dads amongst the townsfolk used all their savings to invest in the tunnel. They considered it to be a very sound venture because the mayor had told them all about it. Plus, they had carefully read the 156-page product disclosure statement (PDS) [7] parchment which told them the tunnel would make lots of money because everyone would be using it. The PDS had included reports from the eminently clever traffic forecasting engineers saying more and more carts would go through the tunnel as the months and years went by. In fact, after 12 months they could expect 94,706 carts a day would be paying at least two gold coins each [8] for the convenience, instead of using the old bridge above.

With the cash now secured from the equity and debt raising, construction work began in earnest. They drilled into the tuff BrisBan rock with the large boring machines and created ventilation systems using 100 jet fans to keep the air in the tunnel fresh. Finally, just 50 months later they said: "Now the King's new tunnel is ready!" The builders basked in the glory of what a splendid and speedy job they had done. The bankers basked in the glory of what financial wizardry they had created, and the mayor basked in the glory of delivering to the king and the people such a magnificent piece of infrastructure. Everyone was happy. There was just one more thing to do. "What shall we name this great and glorious tunnel?" they asked. "What about we name it after a great and glorious Mayor of times past?" And so, they called it the "Clem7" tunnel after the great and glorious mayor of times past, Clem Jones. There was a whole weekend of celebration to mark the opening, with everyone excited to be finally using the Clem7 tunnel. Well, maybe not everyone.

Months passed, the seasons changed, and the time came for the magnificent BrisBan jacaranda trees to burst into purple bloom. But I must tell you, the excitement of impending summer was for some overshadowed by a deep sense of unease. Just six months after opening, life was not good for the owners and equity holders of the Clem7. The share price of RiverCity Motorways had been steadily dropping over the months after opening. What is that you say? What happened?

Well it turned out there was just one small problem with the PPP model, hidden like a tiny pea under 20 mattresses so that in the end it would be felt rather than seen. There were just not enough carts using the tunnel to pay back the debt. And the amount of debt was not small, it was in fact, the size of an elephant. The PPP was built on a high-debt to low-equity financing structure that was over-reliant on the accuracy of the traffic models. The models had showed that each month after opening, enough carts would be using the tunnel to generate the cash needed to pay back the large amounts of debt the consortium had borrowed, plus the fees of the builders and bankers, and still have enough left over to give the townsfolk a return on their equity. But by the end of the first six months only 28,061 carts were going through the tunnel each day. This did not even come close to the 90,676 the models had said would be using it! The owners, and investors were very worried indeed and many began to question the wonders of the PPP, as they watched the value of their investment declining in value.

Another half year passed, and things went from bad to worse. Despite all the efforts to encourage more carts, nothing seemed to work. A new group of eminently clever traffic

forecasters were called. And the strangest thing. It seemed these newer traffic models told a completely different tale. They were built on the actual numbers of carts using the tunnel since opening and they said the first models were completely wrong, and they would be lucky to see half the original numbers using the tunnel going forward ([Grant-Taylor, 2011](#)). Good heavens! This was a mortal blow to the owners of the tunnel. The beautiful billion-dollar asset was immediately written down to just \$258m and conversations were had with the bankers to see if they could postpone the interest payments as there not enough cash from the tolls. But in the end, it was not enough. Less than a year after opening, RiverCity Motorways took its last breath, and the financial undertakers came in to finally put it to rest.

What came next would not surprise you. A long and drawn out legal stoush ensued. Everyone wanted to blame someone else for this monumental financial disaster in which a good many people lost a good deal of money. And the PDS parchment that had set out the now incorrect traffic forecasts featured prominently in their jousting.

The townsfolk who had invested their savings blamed the once-clever traffic forecasters whose models ended up being so wrong. The traffic forecasters blamed the consortium for including only one of the many traffic scenarios they had prepared. Which had of course been their most wildly optimistic forecast and which, when included in the product disclosure document was described as the “base case” [9].

The consortium, in-turn, blamed the traffic forecasters and said they had relied on them as experts in traffic forecasting. They also liked to remind everyone that the PDS parchment had included a note that said, “Traffic modelling and forecasting is not a precise science” ([RCML, 2006](#), p. 72), hence they could not be blamed for them being incorrect. And some of the courtiers and scribes blamed the mayor and the king for using a PPP boot to build a tunnel in the first place.

The mayor and the king did not blame anyone and were in fact rather pleased with themselves. The Mayor said the PPP model had shown its value because “while I am sorry to the small investors who really appear to have lost their money – clearly the townsfolk have been protected” ([Moore, 2010](#)). Just as they had said at the outset, the people of BrisBan had a wonderful new tunnel that had cost billions of dollars to build and for which the town had only had to pay \$377m [10]. People could now get from one side of the river to the other faster than ever before. They had fixed traffic congestion without raising taxes which meant the people were happy, and the mayor’s political fortunes had risen so much there was talk he might one day even be king [11].

But I dare say like me, you still have your doubts as to who could give a true and fair account of why this had occurred. The equity holders lost all the money they had put in just 12 months after the tunnel opened. Surely this warrants more of our attention. The institutional investors (not large in number we note) and bankers had carefully examined the traffic forecasts and discounted returns in the PDS, concluding this to be a very profitable investment. Along with the many lowly but hardworking bootmakers and merchants of BrisBan, they too had watched their investments turn to nought. So, were they all in fact duped by the false traffic forecasts, or is there another explanation?

It must be noted that the mayor and his advisors knew early on in the planning that the higher numbers of traffic were needed to attract private investors under the PPP model. A nobleman had announced way back when the PPP model was first mentioned, “The private sector is probably more aggressive in terms of the way they carry out the project, and more aggressive in terms of their traffic forecasting as well” ([Cameron, 2005](#)). But at the end of the day, there was no way that anyone would invest if more realistic traffic numbers were provided. So the mayor and the king and their advisors all looked the other way, knowing that they would be shielded from paying for any losses. And while a good many townsfolk did lose their money, they reasoned that these were the people who could afford to lose a bit of extra money. Whereas the poorest folk of BrisBan who had not one piece of bread to spare,

ultimately did not pay anything except for the odd toll, in return for this splendid new infrastructure.

“I do not quite believe it”. I hear you say. “It was a boot – not a pea, surely you did not need to be a princess to notice there could be a problem with the traffic numbers. Surely all those clever bankers and even those folk smart enough to have spare money to invest, someone must have noticed this”. Perhaps. But perhaps the real problem was that like the Emperor in Hans Christian Andersen’s story of *The Emperor’s New Clothes* (Andersen, 1872), everyone wanted to believe that it was true. That it really was possible for everyone to make money by turning infrastructure debt into cash.

And if we were to ask the mayor for his thoughts, perhaps he would say; “You see, there is no blanket covering the painting. This is actually just a painting of a cloth covering a painting. And whereas your famous artist is content to fool nature, I’ve made the bankers of the whole world look like a clueless little twats.” (The Mayor, 2010)

The sun rose brightly and shone upon the brown river Maiwar. While underneath in the Clem7 tunnel, many less than forecast, but still numerous a cart continued to make their way back and forth from one side to the other. And many a learnt one wrote their many learnt thoughts on parchment about the tunnel and this revolutionary thing called a PPP that would create roads and tunnels for their kingdoms. And where ultimately the risks were not the responsibility of mayors, kings and knights.

And neighbouring kings heard about the wonderful things that clever bankers could do to help build roads and tunnels across kingdoms without any cost to the king or his mayor. And for many a year they also used PPPs to do this. And how do you think that has worked out for them? “Shall we read their history too? It would not be different” (Andersen, 1872, p. 124).

Now this is a true story.

With thanks to the wonderful stories of Hans Christian Andersen (1872), and Tom Smith for his encouragement.

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Notes

1. Motorists’ number plates had been issued with the tag line “The Sunshine State” until [King] Beattie decided to change this to “The Smart State” in 2001 to fit into his new government marketing strategy. After a public outcry against the change motorists were given the option to have their number plates issued with either slogan (Salisbury, 2013).
2. PPP refers to public–private partnership.
3. The period the PPP is operated by the private sector is known as the concession period.
4. Note this is a toll – not to be confused with the troll in the story of the three billy goats gruff (a Norwegian fairy tale) who is also attempting to enforce a user-pay system on the billy goats using his bridge.
5. The first estimate of costs was \$900m at the time of the feasibility study. By the time the project was approved by the local government to go ahead it was estimated to cost \$1.2bn.
6. One of the most important parts of PPPs is that they are separate legal entity so that they can raise all this debt and equity capital on behalf of the bankers and builders.
7. A product disclosure statement (PDS) is a legal requirement to capital raising through IPOs.
8. Larger carts with higher horsepower would of course pay more, estimated to be 5 gold coins or \$10 in present day money. Single digit horsepower carts at this time were estimated to pay 2 gold coins or \$4 in present day money.

9. The traffic forecasters had prepared a number of different traffic scenarios in the earlier feasibility study which they called: Low Case, Central or Most Likely Case, High Case, Boot Case. The highest estimate (Boot Case) at that time stated 57,285 vehicles per day were expected by 2011. Though the PDS showed 94,706 vehicles per day by 2011 (Maurice Blackburn, 2014).
10. Described in the PDS as the Council Works Facility.
11. He did indeed become king of the Sunshine Kingdom, though it was a short but eventful period of rule lasting almost three years.

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