Major road works ahead!

__Graham Taylor__ is Group Manager, Private Finance Policy at the Highways Agency. Here, he is interviewed by __Robert Bain__, transportation analyst with the credit rating agency Standard & Poor's. Robert is the agency's European Co-ordinator for the toll road sector.

This year marks ten years of the UK government's PFI shadow toll road programme, the largest of its type anywhere in the world. Standard & Poor's talked to Graham Taylor, Group Manager, Private Finance Policy with the Highways Agency to reflect on developments to date, lessons learned and to hear of the Agency's plans for the involvement of private finance in future highway transactions.

Right: Robert Bain who asked the questions. Far right: Grahan Taylor who answered them.

S&P By which metrics do you measure the success – or otherwise – of the PFI roads programme?

GT *Let's start with maintenance. PFI roads are simply better maintained than the roads around them because of strict contract specifications, whereas the public sector is habitually budget-driven in what it can afford to do. PFI road maintenance is specification-driven and operators are incentivised to act quickly – proactively – to maintenance requirements. That has worked very well.*

S&P Encouraging innovation was an objective. To what extent has that been achieved?

GT *Rather disappointingly less so. That said, most of the private operators have an international flavour to them and this has resulted in some different paving materials being proposed. Some of these materials, materials widely used in continental Europe with longer life characteristics, are now in our specification. These would have taken a lot longer to be adopted had it not been for the fact that the private sector effectively presented us with free trials.*

S&P So technical innovation has been limited?

GT *Yes, although bidders also proposed design changes. In some cases, our illustrative designs were not perhaps the most economical. A good example concerns 'skew' bridges (bridges not perpendicular to the road). Skew bridges are more expensive than bridges placed at right-angles to the road. Some DBFO companies replaced these with simpler and less costly designs. We also noted more standardisation in terms of the design of structures.*

S&P And financial innovation?

GT *Well, the first PFI projects to be bond financed were* *roads. The Government wanted to encourage efficient project financing and bonds were selected because they were less expensive than bank debt. I think that is still the case. However there are some disadvantages with bonds, most notably the so called Spens clauses[1]. This can make bond financing less attractive. Also bond-financed deals can take slightly longer to arrange so, under time pressure, we have sometimes avoided bonds in the past.*

S&P **In other European road deals, bank debt has been used through construction, only for that debt to be swapped-out by bonds in project's operational phase. Have you detected any interest in or pressure to migrate from commercial borrowing?**

GT *I'm aware of this trend. We haven't observed this in the UK to date. The pattern so far has been to elect for bank or capital market debt, and to stick with that particular financing option.*

S&P **What about your risk transfer objectives?**

GT *Yes, appropriate risk transfer – that is risk transfer at a reasonable cost to the Agency. We don't set out in tender documentation the risks that we wish to transfer. Instead we identify what risks we will retain and what risks we will share. Everything else belongs to the private sector.*

S&P **Your position on some risks – notably protestor risk and traffic risk – has changed over the years.**

GT *Yes and no. It depends on the project. Is it likely to attract protestors? If so, we will share the risk with the operator effectively capping their exposure. And our move away from shadow tolling on more recent projects removes traffic risk from the equation. Nothing else has really changed.*

S&P **Another stated objective involved the creation of a private sector road operating industry.**

GT *This is all about better asset management. The private sector has always constructed and maintained our roads – we've never had a direct labour organisation – however the objective was to bring commercial management techniques to the highway sector. The government wanted to foster a new attitude to maintaining infrastructure. Budget constraints faced by the public sector has led to poor practice in some cases. The industry in general has learned a great deal from the private operation of roads. Private operators do not leave things until they become problems. They fix them before they become problems. This is a key lesson, and it stems from a life-cycle approach to asset management and maintenance.*

S&P **A final objective was to minimise the financial contribution from the public sector. However this would appear to be a balance sheet issue, and all of your PFI roads now sit on the Highways Agency's balance sheet.**

GT *Yes. There was a reinterpretation by the National Audit Office of the relevant accounting standards – FRS5 and others.*

S&P **But local authority-sponsored PFI roads remain off balance sheet?**

GT *Yes. The Audit Commission[2] takes a different view.*

S&P **The first eight candidate roads for PFI were very different in terms of their size, their location, their configuration, their strategic role and their usage characteristics. Did the PFI approach work better in some instances than others?**

GT *Yes, as expected. The higher value schemes simply represented better value for money, and this is the direction that we're moving to in the future. But size was the only concern. The other differences served to prove that you can successfully apply PFI principles to any highway project – as long as it is big enough to offset the set-up costs while remaining attractive to the market.*

S&P **Where does the size 'threshold' lie?**

GT *For roads you probably need a capital expenditure requirement of £100m or above. It would be difficult for us to demonstrate good value from anything less.*

S&P **What about the engineering nature of the project or the extent of the construction challenge? Does this have an impact on the attractiveness of a PFI approach?**

GT *A particularly high-risk construction programme could have an impact, because the rewards are not that great. So we might not attempt very risky projects as PFIs. This is why a number of banks do not like PFI. They prefer the challenge of high risks and commensurate rewards, having spent time understanding and mastering those risks.*

S&P **How does the Treasury's reduction in the discount rate from 6% to 3.5% impact upon your programme going forward?**

GT *At the time we had a commitment to produce 25% of our roads programme through PFI as we were assuming continuation of the off balance sheet accounting treatment. The reduction in the discount rate raised the hurdle for PFI roads so we looked for ways in which projects could return exceptional value for money. That's how we came to focus on very much larger projects. I know that you intend to turn attention to the future towards the end of this interview.*

S&P **Yes. In the meantime, what feedback about PFI roads were you receiving from the construction and financial services sectors?**

GT *The construction industry appears to be happy with the process, despite there being some losses. These losses were not felt by SPVs – nor the Agency for that matter – but by the construction contractors they employed. Some jobs were rather optimistically estimated. Some construction risks are challenging, such as managing the interface between the contractor and statutory undertakers, particularly in built-up areas, however these risks were passed across and were willingly accepted by the private sector. If you get the numbers right, however – and plenty of people have – these contracts represent a steady stream of income for contractors.*

S&P **What about margins, because many European contractors enjoy higher margins than we are used to seeing? Less than 2% in the UK highway construction industry is not uncommon.**

GT *A number of overseas contractors were clearly uncomfortable with the sorts of margins on offer. Although prices are usually very much lower on the continent than those we see here, margins are typically closer to 5%. However international interest in PFI roads continues to be strong. This is compounded by the fact that more and more British contractors are owned by foreign firms these days.*

S&P **And feedback from the financial community?**

GT *The PFI road market is regarded by many financiers as being mature. It remains a popular area for investment and is reckoned to be pretty reliable. However recently financiers and their lawyers are spending much more time pouring over our contract – which is industry-standard – and this is lengthening the time it takes to close a deal. Our view is that people understand these deals much better now and so it's easier to pick away at the detail. Frankly we're spending an awful lot of time and money negotiating what are really rather small points. For the larger projects we are now bringing forward we expect to have separate financing competitions which will follow-on from the conclusion of the main deal. This change should help to mitigate this effect.*

S&P Turning to the payment mechanism, why shadow tolls? Why not real tolls from the outset?

GT *Well, originally shadow tolls were seen as a precursor to real tolls by the Conservative government. Shadow tolls introduced industry to the disciplines of measuring and monitoring traffic usage. We found shadow tolls to be a workable basis for payment. On the whole the equipment is accurate and the opportunity for disputes to arise is limited. Additionally, there is a relationship between usage (hence payment) and wear-and-tear (ie. costs).*

S&P To further reflect wear-and-tear, you employed a tariff differential between light and heavy vehicles, using vehicle length as a proxy for weight.

GT *Yes, although now we would probably revise the cut-off between 'lights' and 'heavies', at 5.2m, to nearer 5.7m reflecting recent trends in car and delivery van design. Vehicle weight would have been better, however weigh-in-motion technology is still developing. You need to have very reliable technology if you are going to use it as the basis for spending millions of pounds of public money.*

S&P And the move away from shadow tolls was a political decision?

GT *Yes. A new government felt uncomfortable about 'rewarding' private road operators for high traffic usage when the policy emphasis had shifted to looking at ways in which people could be encouraged to use their cars less. So, we first turned to the more classic availability-based PFI model. More recently we've moved to asset performance.*

S&P Your move to a congestion-based payment regime coincided with the government developing congestion related targets for the Agency to meet.

GT *Well, that came a little later, but the policy focus increasingly turned to congestion, yes. Congestion, itself, is a difficult concept to define let alone measure, so we looked to low traffic speeds as a proxy. We introduced the Congestion Management payment mechanism on our Darlington – Dishforth PFI road first. It suits inter-urban routes. It sends the right incentivising messages to operators and provides the travelling public with well-performing roads.*

S&P So contractors bid an amount they require each year to service their debt, to operate and maintain the road and to make a profit – and you pay that subject to congestion-related deductions?

GT *Yes. Contractors are incentivised to receive the full payment by tackling the growing congestion. There are all sorts of devices they can use, but sometimes they need help from us, by making a Traffic Order or something like that. This is significant. Unlike the vast majority of government contracts this implies that the Secretary of State is fettered in his discretion to issue new Orders. This is quite unique. The Secretary of State's position is protected as long as he has a genuine reason for not complying with a request. But if the request is the only reasonable way of reducing congestion then he has to do it. This is a real partnership.*

S&P How much does your portfolio of PFI roads currently cost?

GT *We spend approaching £300m each year, on PFI roads. In terms of route miles, these roads represent around 9% of our network. It's a large commitment. The forthcoming M25 contract – I know you want to speak about this later – but that will probably add another £200m a year, doubling our PFI-related obligations.*

S&P What do you think are the biggest challenges faced by private road operators in the UK?

GT *Probably the challenge of matching cash in-flows with financial obligations on a year-by-year basis. On a couple of roads the DBFO company's traffic forecasts were optimistic, too high – so the operators are now struggling. However if project sponsors have taken money out of these contracts already, when things get tough they're going to have to pay some back.*

S&P Given their practical experience to date, do you think that the operators look back and still feel that risk was allocated fairly?

GT *This is interesting. On the face of it some risks appear daunting at first glance, however this initial view can be wrong. We asked the private sector to take change-in-specification risk, for example, and they all refused. However the reality of the situation is that several of the operators have already accepted this risk implicitly. As specifications change, what you can buy in the shop changes. It can become difficult or costly to buy old materials – perhaps those specified in the original contract – so you buy the latest, the cheapest; as we all do. That's the reality of the situation. Our more recent contracts have transferred this risk formally to them, and they are protected against 'step changes' – extreme situations such as the government deciding to provide lighting on all motorways, which would be a huge cost to them.*

S&P What lessons has industry learned from your PFI road programme?

GT *The use of different techniques, the importance of preventative maintenance – but mainly attention to detail. When a crack appears in the pavement the private operators seal it. They don't leave it because the consequence of so doing will hurt them later. The lessons resulting from private sector management are spreading throughout the industry. Until a few years ago our roads were managed by local highway authorities. We moved the management of maintenance into private sector hands. This has been a notable success.*

S&P And looking to the future of PFI roads?

GT *Well, you mentioned the reduced discount rate earlier, and that prompted us to look at approaches that would give us new opportunities for efficiency savings – hence the incentive to run some very large motorway widening projects as single contracts. This way, you take some key risks that the public sector normally bears – the interface risk between contracts and the cost of starting up and running down contracts, for example – and give those risks away through a big, single PFI contract. The cost to the Highways Agency, in contract terms, should be mini-*

mal as these projects will be managed holistically. The traditional approach of the public sector to interface risks was to make sure that they didn't occur by spacing all of the contracts out. In terms of realising the full benefit from these works, that was not particularly helpful.

S&P These super-sized, £1bn+ motorway widening contracts may attract a different sort of contractor.

GT *Certainly. They're likely to be most attractive to the big international contractors who have the skills to manage very complicated projects. Initial soundings suggest that there is no shortage of interest from such entities.*

S&P Has your approach to the evaluation of bids and the award of contracts changed?

GT *Yes. We're moving to award contracts without prices in them. The approach – Early Contractor Involvement – involves appointing a contractor to work with us to develop a project. So they are appointed long before draft orders are published, long before any enquiry and long before an inspector's report. The contractor does not give us a price. The Highways Agency gives him a budget – the money available – and he is incentivised through an open-book target price approach to deliver the works at a lower cost than the budget. This offers the potential for a win-win, partnership-based solution, and moves away from a situation where the contractor effectively buys the work and looks for a profit through claims. We're looking for transparency, so that we can understand what the costs are, rather than the prices.*

S&P Will the new European Procurement Directive[3] impact on the future PFI programme?

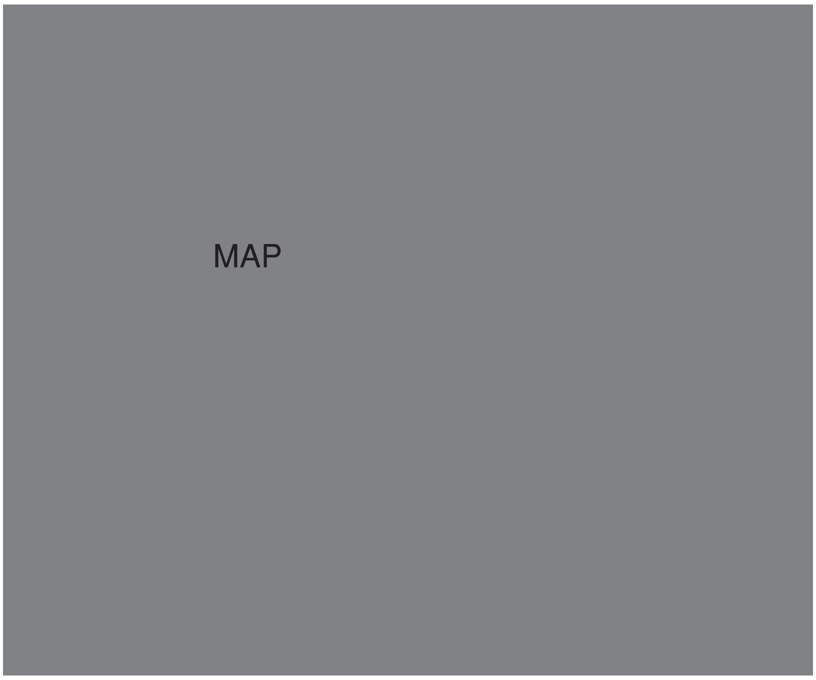
GT *At the heart of the Directive lies 'competitive dialogue'. This involves keeping all of your bidders in discussion until you sign the contract. This is designed to avoid getting into negotiations with any favourite bidder – not necessarily the cheapest or the best proposition – too early. It is difficult to see why contractors would favour this approach because of the costs involved. So, for present, we aim to continue using the Negotiated Procedure approach.*

S&P Given the extent of international interest in your PFI programme and your approach to public-private partnerships in general, what trends do you see evolving in other countries? Can others learn lessons from your experience?

GT *Yes, but you have to be realistic. One of the most obvious lessons is that few countries can afford to fund DBFO shadow toll road projects themselves the way that we have here in the UK. Many delegations visit, like what they see, aim to replicate it at home and then discover that they simply can't afford it. If anything, they end up introducing user-paid tolls. Shadow tolling in a PFI context is a rich country game. There have been cases in Australia and Portugal that started as shadow tolls but ended up as user-paid tolls where the resource costs are more manageable.*

S&P Canada appears to be embracing the concept.

GT *Yes, I've had contact with most of the provinces and British Columbia seems to be taking the lead. But they are an exception, not the rule. We've had visitors from Latin America and Central and Eastern Europe, and I try to discourage people from thinking that they can automatically do the sorts of road PFIs that we secure. Their domestic economies – many with incredible inflationary pressures – are simply not strong enough.*



The M25 – one of the HA's £1.5bn motorway widening 'flagship' projects.

S&P In conclusion, tell us about the PFI roads programme going forward.

GT *Large £1.5bn motorway widening 'flagship' projects: M25, M1 and possibly M6 – if it doesn't go down the real toll route. There are possibly others, however the immediate future will concentrate on the M25 so I will sketch that out for you.*
The M25 project will complete motorway widening along the road to dual-four lane standard. About half is complete at the moment. That took around 18 years. We'd like to complete the remainder of the programme in about seven years as a PFI project. Private contractors are hugely incentivised to complete works in as short a time as possible as the payments really don't start to flow until the road is fully operational. Helpfully, the project involves no land take – however this means that the intersections will have to remain largely unaltered and there will be considerable lengths of discontinuous hard shoulders because we are not rebuilding over-bridges. This, in turn, calls for some fairly sophisticated engineering solutions. The value, in works terms, is estimated at around £1.3bn. The total capital requirement is likely to be closer to £1.6bn, once land compensation costs are taken into account. In total the M25 is about 200km long, so there is 100km to be widened. The project will include maintenance of the adjacent sections (the 'stubs and tails') of the radial routes going into London. This will add another 200 route-kilometres to the project. It currently costs around £100m/year to manage and maintain the M25, including major capital replacements – so that gives you an idea of the scale of our next PFI road transaction.

S&P Do you expect to see new players enter the market, or existing players take on new roles?

GT *There are, for example, some banks that have already expressed an interest in leading bids. They've played this role before – elsewhere – but this is new to us. Perhaps it's the start of a trend? There seems to be plenty of appetite in the banking community for just this sort of bid-leading and co-ordinating role in the future. And, as always, the Highways Agency welcomes such developments.*

S&P Thank you.

1. The Spens formula is often applied to the termination of PFI bond issues. Under voluntary termination it compensates bond holders for the risk margin on the debt for the remaining life of the bond.

2. The Audit Commission is the public expenditure watchdog for local authorities – as opposed to Central Government – in the UK.

3. Directive 2004/18/EC of the European Parliament on the co-ordination of procedures for the award of public works contracts, public supply contracts and public service contracts.