ADDLESHAW GODDARD

PUBLIC PRIVATE PARTNERSHIPS IN THE UNITED KINGDOM TRANSPORT SECTOR

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As countries in Southeast Europe (SEE) have entered or are preparing for entry into the European Union, they are faced with massive investment programmes needed in order to comply with European Union (EU) legislation and directives particularly in respect of transportation and environmental issues. While states will continue to rely on traditional methods of financing, including use of pre-accession and cohesion funds from the EU, the pressure to investigate the private provision of public services through Public Private Partnerships (PPPs) will increase for exactly the same reason as in "old" Europe: the desire to reduce budgetary capital expenditure and the experience that private provision can bring greater overall value for money (in design, innovation and risk transfer terms).

In view of the substantial adoption in the UK of PPP structures for the delivery of projects and services traditionally provided by the public sector,[2] it would be useful to look at the main areas in the UK's transport sector where PPPs have most recently been used, namely rail, road maintenance and road DBFO Projects. We will touch upon the London Underground PPP, the road DBFO (Design Build Finance Operate) projects and the innovative PFI (Private Finance Initiative) roads maintenance projects, and examine the different ways in which these projects approach important contractual issues (such as, amongst others, project duration, payment and termination of the concession agreement).

London Underground PPP

Perhaps the highest profile "rail" PPP is the London Underground (though technically it is a metro system). London Underground (or the Tube, as affectionately known by Londoners) has a history of under-investment, stretching back decades, and in 1997 the Government decided that a PPP model was the most appropriate way in which to provide a sustained high-level of funding together with the engineering skills required to rehabilitate and regenerate the Tube. After a passionate public debate, three London Underground PPPs were (finally) concluded at the end of March 2003.

The net present value (NPV) of spending under the three PPPs over 30 years is evaluated at £15.7 billion (with a value of £9.7 billion over the first 7½ years). Under the conditions of the PPPs, the public sector will make service charge payments to the two private sector partners, Tube Lines and Metronet, in return for the delivery by them of specified contract outputs.

London Underground PPP's Structure[3]

This PPP structure is unique, complex and innovative. It divides the Tube into four parts for the next 30 years - three private sector infrastructure companies (Infracos) and a public sector operating company, London Underground Limited (LUL). The three Infracos (SSL, BCV and JNP) took control of London Underground's assets (the trains, tracks, tunnels, signals and stations) and will maintain and renew them in a whole life manner for the next 30 years. London

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[2] See Figure 1.

[3] Figure 2 shows the responsibilities of the key parties in the LUL PPPs and how they interact with each other.

Underground retains the ultimate ownership and responsibility for the daily operation of trains and stations, and for safety. It now manages the PPP contracts and provides train operators and station staff.

The JNP Infraco was transferred to Tube Lines, a private sector consortium of Bechtel, Jarvis and Amey. The SSL and BCV Infracos became the responsibility of Metronet, a private sector consortium of Balfour Beatty, WS Atkins, Bombardier Transportation, Thames Water and Seeboard (now EDF). Consistent with conventional project finance practice, Infracos' obligations were (largely) passed down through subcontract arrangements.[4]

It is the responsibility of the Infracos to raise the money to invest in the Tube network and carry out the maintenance and engineering work that should lead to its regeneration and improvement. The delivery dates for new trains and refurbished stations were agreed and are included in the PPP contracts. However, it is London Underground's responsibility to manage the PPP contracts in a way allowing the Infracos to deliver the improvements to the Tube network they have promised.

Main Contractual Issues

Duration: While the overall duration of the PPPs is 30 years, the private sector partners could not have offered firm prices beyond the first 7½ years of the deals. This was because there was limited information available about the condition of some of LUL's assets (or the extent of the asset base) and no one had experience of pricing against output specifications for such a large and extended programme of work. In addition, LUL wanted to retain flexibility to re-specify its output requirements on a periodic basis.

As a result, the private sector is firmly committed for the first 7½ years and is incentivised to stay in the deals for the full 30-year period, with conditional or estimated prices over that period. However, the parties to the PPPs will be able to refer to a specially appointed "Arbiter" for review of whether adjusted prices are economic and efficient and provide for the agreed return on equity (see below).

Payments: The London Underground PPP provides for significant performance related payments related to the provision of additional passenger capacity, reductions to customer journey time and improvements in journey ambience. It is for the Infracos to decide whether they should provide the improvements through better signaling, refurbishment of trains or some other means.

Requirements are, so far as possible, specified in terms of the service experienced by passengers, the main exception being in respect of station refurbishment and modernisation. There are three main measures:

- Capability – measured through reduced journey times as a result of major line enhancements involving expenditure on track, signaling and rolling stock;
- Availability – reflecting "in service" performance of the infrastructure measured through the reduction of delays; and
- Ambience – reflecting the condition and cleanliness of trains and stations measured through "mystery shopper" surveys.

For the purposes of calculating financial abatements and bonuses, actual performance is assessed on the basis of two main measures: Lost Customer Hours and Service Points. In order that incentives on Infracos reflect customer interests, Lost Customer Hours are valued at £6/hour (LUL's estimate of its passengers' average value of time), with rates of £9/hours above an "unacceptable performance" standard threshold and lower rates of £3 for improvements beyond benchmark. A complex set of formulae exist to allow these to be calculated.[5]

[4] Figure 3 illustrates the contractual relationships between the Metronet consortium and its sub-contract arrangements. It should be noted that due to the structure of the pre-existing network the Infracos were substantial corporate entities in their own right. This made the use of project finance funding even more novel (as the Infracos were capable of absorbing and managing some risk).

[5] Known as NACHs Tables (nominally accumulated customer hours) they cover the entirety of the underground network.

The payment regime is based on output based performance and there is an in-built periodic review mechanism to enable the parties to re-specify requirements within the PPP scope and re-price the deals every 7½ years. After the first 7½ years, the Infracos are committed to providing services at a price agreed between the parties or at a price (including financing costs) that "an economic and efficient supplier in similar circumstances" could charge. The Arbiter may be called on to decide on the latter.

Termination: Because of safety related restrictions, the lenders do not have the usual avenues open to them on a project finance. They cannot exercise "step-in rights". As such, they are limited in their ability to remedy performance issues. Consequently, during negotiations with short-listed bidders, it became evident that the lenders would only be prepared to lend the required funding with adequate protection. Finance was ultimately secured on the basis of lenders getting back 95% or more of the amount lent in the event of termination. This is unprecedented case of UK PFI/PPP deals (compare the situation in Road DBFOs where the amount paid to the DBFO Co on termination is nil for contractor default termination).

The Road DBFOs

As seen in the past, motorway concessions in Central and Eastern Europe have frequently failed because of the motorists' reluctance to pay direct tolls and the tendency of governments and national courts to manipulate the level of tolls in order to make them politically acceptable. Of course, the majority of motorists will not pay happily for using the roads, even in the far wealthier Western European countries. Demand risk is key and there is no coincidence that as the UK moves towards "availability" based payment mechanisms for roads the projects become more attractive to all parties.

According to a report published by Standard & Poor's (S&P) summarising the conclusions of a review of the international toll road sector carried out by S&P, sufficient shielding of lenders from traffic risk can improve the credit quality of shadow toll road projects.

According to S&P's Robert Bain "The key credit strengths of shadow toll projects do not flow from shadow tolling per se, but from the flexibility retained by concession grantors regarding the structure of the payment mechanism used to compensate private operators. Our analysis suggests that removing the challenge of having to predict drivers' responses to the imposition of point-of-use pricing does not automatically reduce traffic risk."[6]

The key to minimising risk on shadow toll road projects is the way in which the concession payment mechanism is structured and applied and this remains entirely at the discretion of the grantor. Synthetic structures can be designed using payment "bands" that, for example, compensate lower future traffic levels with high reimbursement rates. In addition, the shadow toll component of the total payment due to concessionaires may be small. Early payment mechanisms were 100% demand-related but more recently, this has reduced to 10%-40%; the remainder of the payment is awarded asset availability and operator performance.

Standard & Poor's report[7] entitled "Managing Lenders' Exposure to Traffic Risk is Key Credit Driver for Shadow Toll Roads" examines other means of shielding lenders from traffic risk, including fine-tuning shadow tolls and appropriate vehicle classification systems. It also considers the main characteristics shared by international shadow toll road operators.

The use of private finance for the procurement of the UK's motorway and trunk road network was launched by the Highways

[6] *See http://www.infra-news.com*

[7] *The report can be obtained from Standard & Poor's.*

Agency in August 1994. So far, around 25% by value of current and new major road schemes are being procured using private finance contracts, including DBFO contracts. Under the contracts, the DBFO companies /concessionaires (DBFO Cos) are responsible for the detailed design, the road construction (new build and/or widening) or renovation, the operation and maintenance, and the project financing. The ownership of the road is retained by the State and DBFO Cos are given rights of access and operation to enable them to fulfill their contractual responsibilities.

The DBFO Contract Structure[8]

The diagram on Figure 3 shows how DBFO Co allocates a large proportion of the performance of its contractual responsibilities and risk assumed under the DBFO contract to the construction, operation and maintenance sub-contractors. The construction sub-contract is typically let on a fixed price, turnkey basis. The construction sub-contractor would, in turn, let fixed-price sub-contracts for the majority of the construction work undertaken by it.

Main Contractual Issues

Duration: The DBFO contract period is 30 years from commencement date. As circumstances existing at the start of this period might change, the contract contains a change mechanism allowing the Agency to change the service specification or to require additional works during the contract period. When such changes are implemented, the shadow tolls will be revised to allow for the change in costs or effects in traffic flow. Otherwise, the risk of changes is borne by DBFO Co.

Payments: Payment to DBFO Co is based on three criteria: usage/demand, availability of service and performance.

- The usage/demand element of the payment is based on the number and type of vehicles using the road and increases over time in accordance with an indexation formula. In the Irish Roads coming to the market, this is coming out at around only 20% of the total payment. Consistent with the S&P observations, different payments are due for traffic within different traffic bands and dependent on the length of the vehicle. The toll level of the top band is set at zero in order to cap the Agency's maximum liability for payment.[9]
- In respect of availability, where the project consists of an existing stretch of road to be upgraded by a series of construction schemes, payments during the construction phases are made at a reduced level. If the road is open to traffic during construction, 80% of the full payment is usually due to DBFO Co. Upon completion and certification of the construction work, DBFO starts receiving full payment. Payments are expected to drop again when the third party debt is fully repaid.[10]
- Performance payments have two elements: "safety performance" and "lane closure charges". DBFO Co is encouraged to propose safety improvement schemes for the purpose of reducing accident levels on the road network. If improved by the Agency, DBFO Co carries them out at its own cost but is rewarded by receiving 25% of the economic cost of each personal injury accident avoided in the following five-year period.

Because of the delay and disturbance they cause to road users, lane closures result in deductions from the toll payment, the size of deduction depending on the number of lanes closed, and the duration and time of the closure (greater weight is given to closures during peak or business hours). Lane closure deductions are made only for reasons within DBFO Co's control, e.g. for maintenance, and not for closures required by the police or utilities.

Penalty points and monitoring: One of the main operational issues for the Agency is

[8] A typical DBFO contractual structure is shown on Figure 3.

[9] Figure 4 shows a typical banding structure used on a DBFO project.

[10] Figure 5 shows a typical payment profile (the increase in payment over time during each step results from the indexation of tolls).

how to ensure that DBFO Co complies with the terms of the DBFO contract, post-award. Under the terms of the contract the Agency appoints representatives to monitor the construction, operation and maintenance carried out by DBFO Co to ensure that it complies with its contractual obligations.

The DBFO contracts contain a penalty point mechanism which attributes points for failure to perform under the contract. Once a specified number of penalty points has been exceeded, the Agency has the right to terminate the contract. The Agency also has a number of other remedies arising from non-performance, including the right to remedy any default and invoice DBFO Co for its costs. This is consistent with other UK PFI sectors.

Termination: As lenders take security over the assets of DBFO Co (which in this case are DBFO Co's rights under the DBFO contract), the Agency has allowed them "step-in" rights in the event DBFO fails to perform. These will allow the lenders to take over the project and if necessary bring in a substitute concessionaire in order forestall a termination of the DBFO contract following DBFO Co's default. The step-in rights are set out in detail in the Direct Agreement between the lenders, the Agency and DBFO Co. Unlike the London Underground PPP, such direct agreements are the market norm in UK PFI – though the DBFO form has certain differing provisions.[11]

Handback: To ensure that the road is returned in a fit condition for service that will not require major capital maintenance immediately following the end of the contract, specific clauses are put into each contract regarding handback. A required residual life is specified for each element of the project road. For example, at least 85% of the road pavement should have a 10-year residual life on handback. Certain road elements never last that long (for example, cats' eyes) and are required to be replaced before the end of the contract. Though bridges have a design life of 120 years, it is still necessary to demonstrate that most elements of these structures have a residual life of at least 30 years on handback.

The contract also contains detailed requirements in respect of the inspections of the roads and main structures to be carried out by the Agency at two stages, (i) five years and (ii) 18 months, prior to handback and the possible remedial action that may be needed to achieve the required standard at contract termination. Part of the payments due to DBFO Co can be withheld and used to remedy defects if handback criteria are not met at expiry.

Other special risks: In addition to traditional risks which DBFO Co will be expected to assume, namely construction and operational cost overruns, delay in delivery of the service, faulty design and changes of law imposing additional/increased costs on the operator (other than specific changes discriminating against DBFO Co or other similar companies), DBFO Co will be asked to share or take on the entire traffic risk, protestor risk and latent defects risk. For example, DBFO Cos are asked to accept the risk of latent defects such as the spalling of concrete or a structure component not meeting the expected design, the financial consequences of protest action are shared between DBFO Co and the Agency.

The PFI Road Maintenance Projects

The UK Government is also developing new procurement approaches for road maintenance and introducing long-term maintenance contracts on DBFO lines. Maintenance only projects are different in that they do not involve any new "build" but instead embrace capital improvement services such as:-

- capital maintenance works for the road network;

[11] *Such as the time allowed for the Step-In.*

- routine and response maintenance of the network (including winter maintenance) and footpaths;
- maintenance and management of bridges and other network structures;
- maintenance and management of street lighting;
- highway management and operation functions such as temporary traffic management and litter collection.

As seen above, this type of projects involves not only maintenance of highways but also of the associated infrastructure (i.e. the "street scene"). The public sees the street as a single functional space rather than a series of unrelated components and disconnected activities. Therefore, public expectations can be fully satisfied only through an integrated approach to highway and street maintenance.

The first highways management/street scene project to move forward under the PFI was signed at the end of July 2004. Portsmouth City Council awarded a contract for the operation and maintenance of its road network and associated infrastructure to a special purpose vehicle, Service Co, formed by Colas Limited, the UK subsidiary of Colas SA.

Under the "pathfinder" Portsmouth contract, the Service Co will upgrade the asset base during the first five years to a specified condition. This includes 480km of road network, bridges, street lighting and pavements. The highways infrastructure will also be subject to lifecycle replacement works, maintenance and cleansing services throughout the concession period.

Project Structure

The project was based on the "Model Contract" for local authority highways maintenance. Following execution of the contract, Service Co is allowed a mobilisation period to prepare for service commencement followed by the 5 year period of "Core Investment Works". Whilst these works are being undertaken, the remainder of the roads network will be subject to services on a continual basis.

The services are routine maintenance, network management and cleansing services and they also begin upon the issue of the commencement certificate. This means that Core Investment Works and services occur concurrently over the roads network. This gives an instant revenue stream as service payments commence immediately. As and when the Core Investment Works meet minimum specified criteria, the service payment steps up.

The service payment is comprised of certain elements. There is a component for heavy goods vehicle (HGV) usage and an availability based payment linked to network condition.

As usual in PFI practice, Service Co's obligations under the Model Contract are passed down through subcontract arrangements. With concurrent works and services being performed, there is a high degree of co-ordination and integration risk. This risk is effectively managed through a single sub-contract for both works and services.

Main Contractual Issues

Payments: With highways maintenance projects not being conventional "road" projects, the allocation of performance and usage risk has to be sensible. Payments begin from the commencement certificate and the payment is comprised of two elements: an annual usage payment and a monthly availability payment.

- The annual usage payment is based on HGV usage and a rate per HGV is applied each time an HGV crosses pre-identified measurement points on the network. To minimise the exposure of the private sector to traffic forecasting risk, the usage payment is "capped" to a percentage of the annual service payment. Provided the cap is reached,

exposure to traffic flows is limited. Therefore, the risk to the private sector is that the "cap" is not achieved and revenue is not forthcoming as a result.

- The availability payment is subject to a number of potential deductions. The allocation of deductions differs between the 5 year core investment period and period thereafter. The deductions take into account the pavement condition across the network, the length of roads closed outside agreed closure periods or which fail to meet the service standards, streetlighting outputs (after the core investment period) and certain best value obligations.

Inherited Infrastructure: As the risk of defects in the entire network was placed with the private sector, this required a detailed technical assessment of the legacy asset base. The assessment needed to include not just road and streetlight condition, but major structural elements such as bridges and drainage. It is highly likely that - where major structural or drainage elements are present in a road network - these will need special treatment. With certain elements of the legacy infrastructure, the ultimate solution on the Portsmouth project involved a risk share between the private and public sector.

Other risks: As in any pathfinder project, new issues had to be addressed such as the nature and quality of electricity supply to the streetlighting infrastructure and who takes the risk on it, as well as how to deal with increases in the cost of raw materials such as bitumen. The need to provide protection for increases in bitumen cost depends upon the private sector's ability to take pricing risk, which is in part driven by the length of any core investment period. If a five-year investment period is the norm, then some protection is likely to be required to offer the public sector a value for money solution rather than having the private sector price this risk outright. In terms of pricing risk from the completion of core investment works, the contract utilises indexation adjustments to the payments.

Do PPPs have a future in Southeast Europe?

In the UK, the PFI is going strong and is being supplemented by further PPP initiatives such as the National Health Service LIFT programme and the "Building Schools for the Future"[12]. The DBFO road schemes in the UK have also been successful but they will be less plentiful (not for financial reasons). For example, the Highways Agency has estimated that on average 15% of whole life costs would be saved in a DBFO project compared to traditional procurement. The private sector has taken on new risks including protestor action disruption and a new road management industry made up of local and foreign operators has been created. The DBFO principles have attracted attention from abroad and new schemes (such as SCUT in Portugal) have drawn on the shadow toll model.

While it could not reasonably be expected that deals as complex as the LUL PPPs would be emulated in the SEE region in the foreseeable future, there is no reason why DBFO principles cannot be applied to projects there, as long as the projects are appropriately structured to achieve bankability and affordability, and as long as governments are prepared to undertake the appropriate action needed to tackle the current obstacles before PPPs. These obstacles are similar, despite the different governmental and legislative structures throughout the region. Determination of the central government is essential to implementing PPPs, which is best demonstrated by the establishment of task forces and the identification of pilot projects. Political will to carry out the necessary legislative changes is vital. The main areas

[12] Both are framework based procurements involving project finance funding solutions. Addleshaw Goddard is the Government's advisor on the establishment of the £2.2 billion "Building Schools for the Future" programme, the public sector in Northern Ireland on the establishment of its new schools programme, the Department of Health or its £2.3 billion programme of outsourcing clinical activity to the private sector and NHS trusts procuring the "batched" hospital PFI's. We are also advising the 4Ps on its "Street Lighting PFI" guidance.

of the law deserving attention are uncertainty over the power of public bodies to enter into PPP contracts, removal of tax anomalies affecting PPP structures and coordination of capital expenditure regimes with PPPs. There is lack of understanding of the principles of project finance and important issues such as lenders' security and step-in rights are often controversial and difficult to negotiate.

There also remains an inclination towards the authorities being shareholders in the project company, which makes projects less transparent. Constitutional issues may arise where fees are payable by the end user. Acquisition of land by the state is often fraught with problems and the array of planning and consent procedures required for the construction of roads is mind-boggling. Many governments are still to accept the view that unless projects are subject to open competitive tender, the public sector will obtain poor value for money. Some authorities are still willing to award concessions without proper evidence that funding has been committed to the project (this in itself goes to the heart of political and sovereign credit risk).

While private financing of infrastructure has not had an easy ride in "new" Europe, there is clear potential for PPPs. The pressure to use PPPs as an alternative route of procurement is great, mainly because of the need to reduce budgetary capital expenditure and because in the long term private provision of public services can be more efficient and cheaper. As a result, countries are increasingly implementing PPP legislation and are embarking on privately financed road projects. Let us hope that the ever increasing transfer of knowledge from sophisticated markets such as the United Kingdom and the greater transparency imposed by the EU public procurement requirements will help PPPs realise their potential.

Addleshaw Goddard is a leading UK commercial law firm with offices in the City of London, Leeds and Manchester. The firm has one of the largest Projects/PPP Groups in the United Kingdom and undertakes high quality work for a wide public sector client base (including government departments and agencies, local authorities, the National Health Service, schools, universities and colleges), as well as project sponsors, contractors and funders. The firm has been on the Ministry of Defence's panel of legal advisers on PPP since 1997, as well as on a number of other government PPP advisor panels in the health and education sectors. Its expertise spreads across a wide range of market sectors including waste management, national heritage, urban regeneration, roads and highways, leisure, housing, transport, health, education, street lighting, defence and accommodation schemes.

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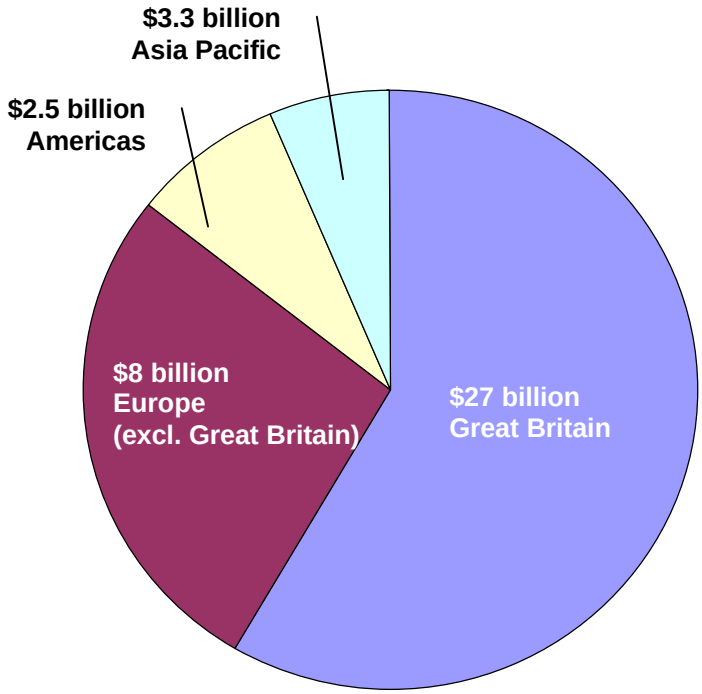
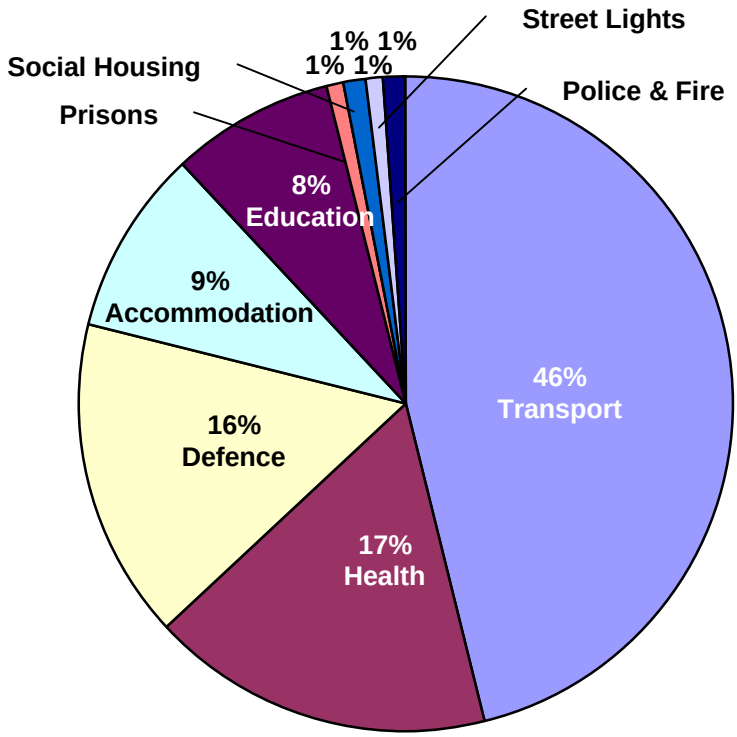


Figure 1

(a) Capital value of closed PPP projects worldwide (2003)



(b) PFI debt by sector in Great Britain (2003)

Source: Dealogic

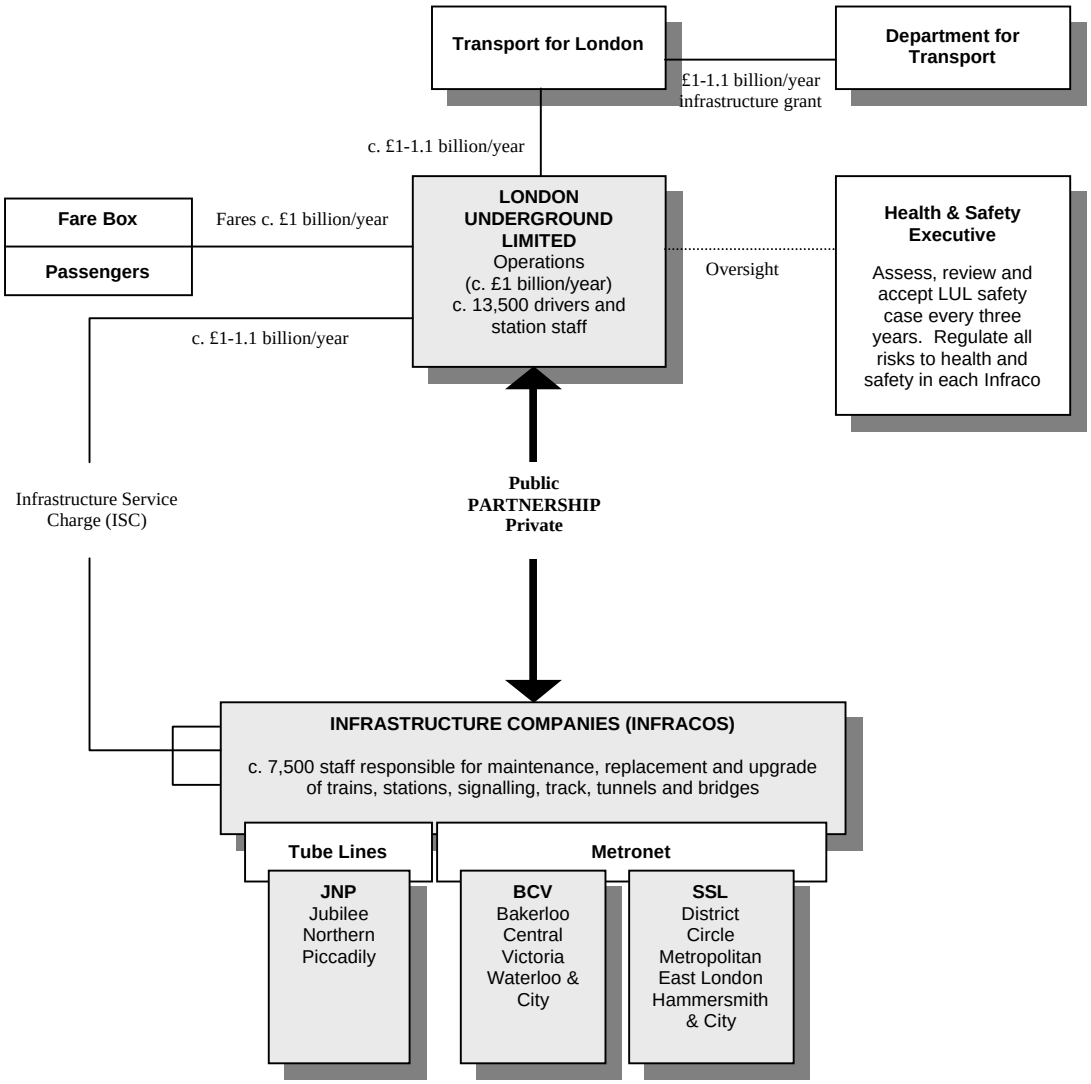


Figure 2

Structure of the London Underground PPPs

Source: National Audit Office

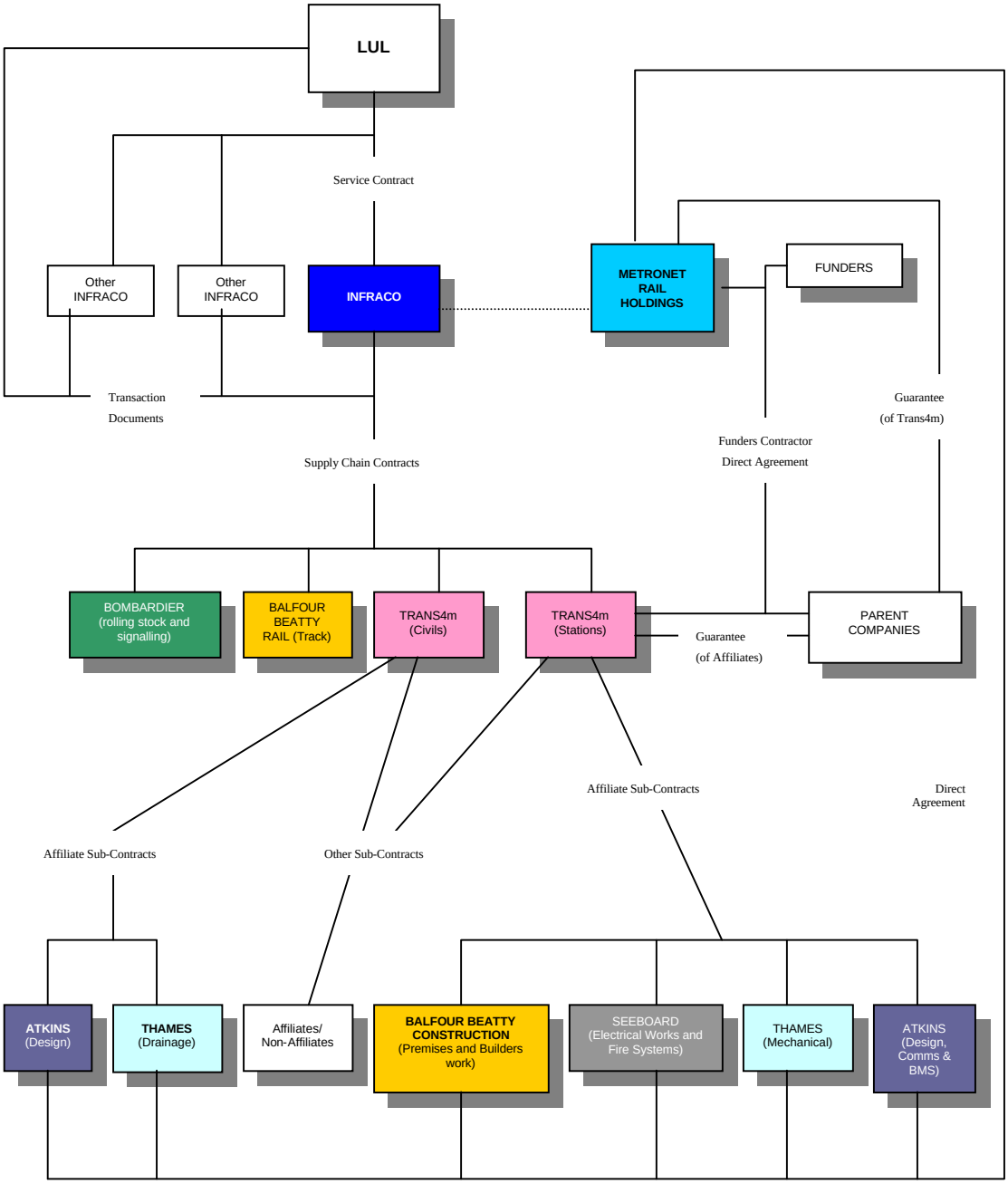


Figure 3

Summary of Metronet and its sub-contract supply chain

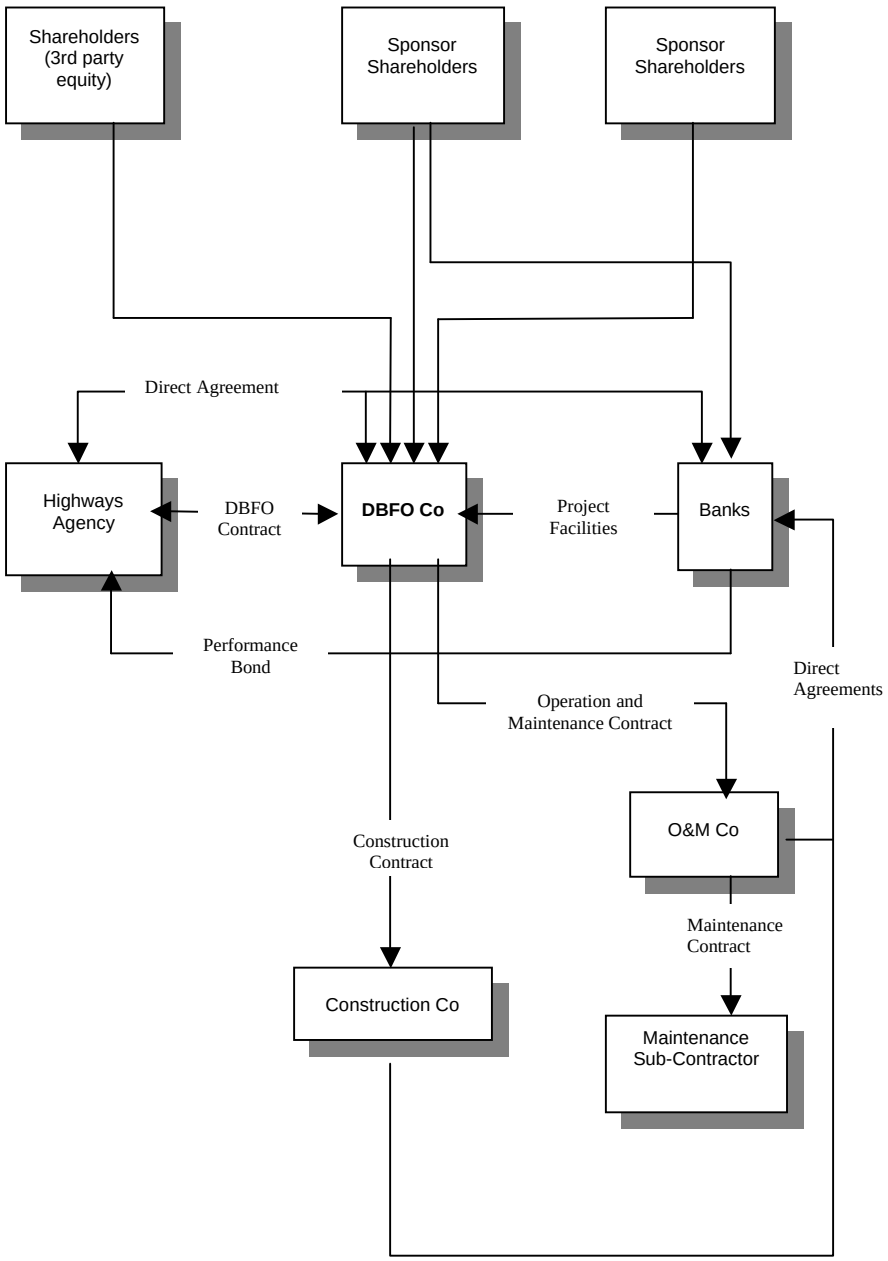


Figure 4

DBFO Contractual Structure

Source: Highways Agency

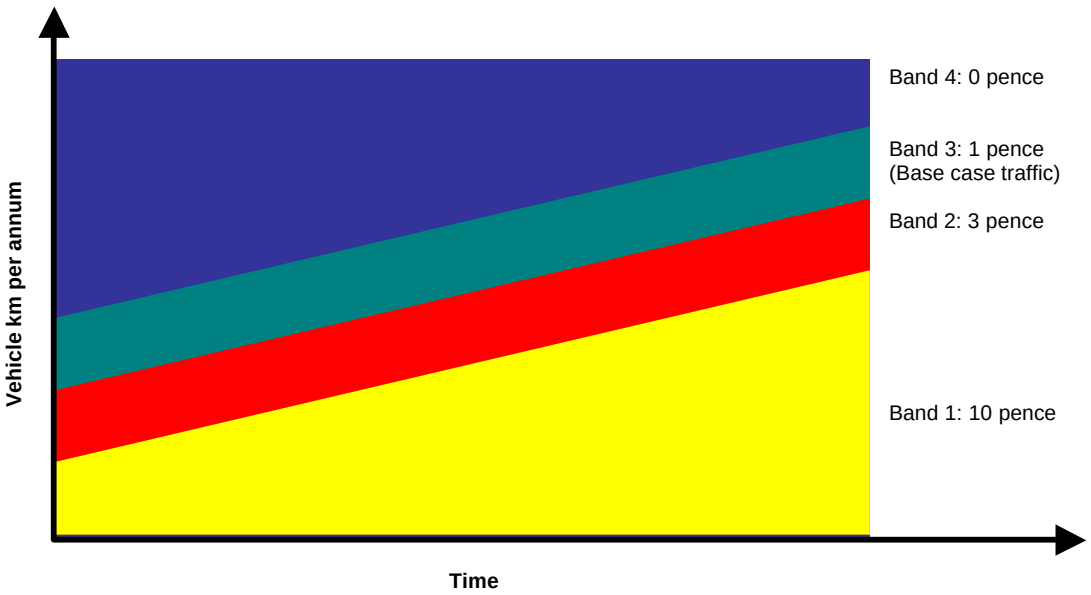


Figure 5

Typical banding structure on a DBFO project

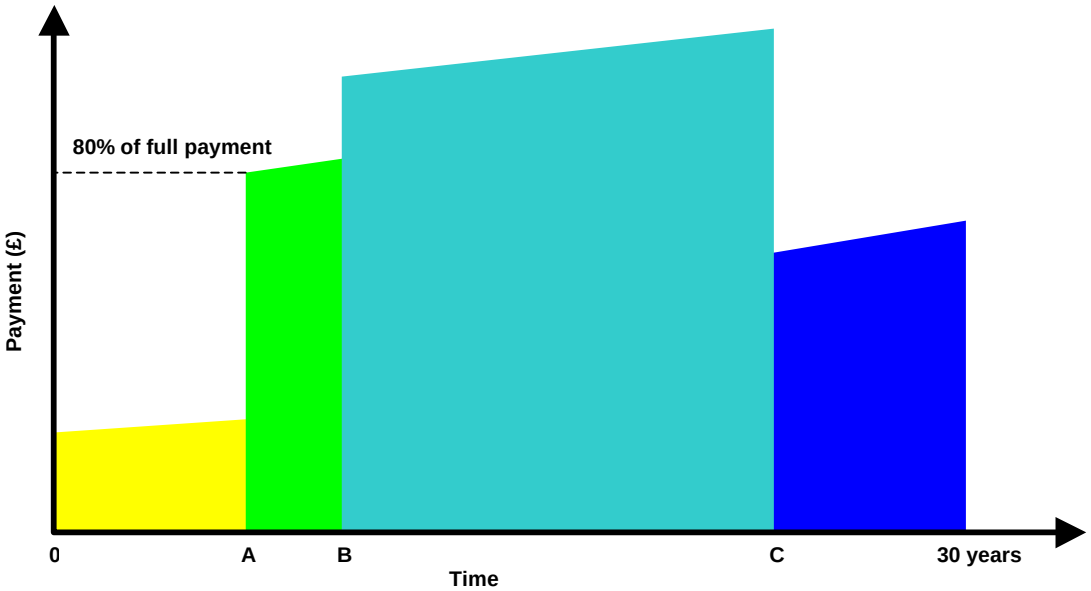


Figure 6

Typical payment profile on a DBFO project

Source: Highways Agency