The Channel Tunnel and High Speed 1 – a legal perspective

Le tunnel sous la Manche et la ligne HS1 – perspective juridique

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Herbert Smith – the predecessor firm to Herbert Smith Freehills – was at the heart of both the Channel Tunnel and the High Speed 1 projects. In 1986, we were appointed by Eurotunnel in both England and France in the year that the consortium was awarded the concession. We advised on its debt financing and subsequent flotation at the end of 1987.

In 1994 we were appointed by London & Continental Railways, which was subsequently awarded the concession to build the Channel Tunnel Rail Link – now High Speed 1. We advised throughout the construction of the link, and on the various re-structurings of LCR, culminating on the successful sale of High Speed 1 to Canadian pension funds in 2010.
Both Tim and I were involved in High Speed 1 – and we apologise in advance if we appear to favour that project over the other. I was a member of the team advising LCR from the date of our appointment and led the team through the final restructuring and the sale of the railway. Tim advised on establishing the regulatory regime for High Speed 1 in preparation for its sale.

We are going to use our 15-20 minutes to look at the Channel Tunnel and High Speed 1 from a legal perspective: – how the two projects were similar, how they were different, and what lessons we can draw for future major railway projects. We are also going to consider how legal developments – particularly at the EU level – would make a difference to the way in which these projects could be undertaken today, and what that means for the next generation of railway infrastructure projects.

**In what ways were the projects similar?**

They were both the subject of concessions awarded by government following a competitive tender. In the case of the Channel Tunnel, the competition was for the very design of the “fixed link” across the Channel, as well as to be the consortium responsible for financing, constructing and operating the infrastructure. The design proposed by Eurotunnel competed with a bridge-cum-tunnel proposed by Trafalgar House which would have enabled cars and trucks to drive across the Channel, as well as costing many times the price. There was a competing proposal in which road vehicles would have shared the same tunnel with trains.

In the case of High Speed 1, the parameters of the route of the railway were largely fixed by the Channel Tunnel Rail Link Act 1996 and the competition was focussed on which consortium required the smallest amount of government subsidy to deliver the project. The Development Agreement which was awarded to LCR at the end of the competition embodied Private Finance...
Initiative (PFI) principles. Amongst those was the concept that the key delivery obligations on LCR were based on output rather than input specifications – e.g. as long as LCR could design and deliver infrastructure capable of providing capacity for no fewer than \([N]\) trains travelling at up to \([X]\) speed in both directions, it had leeway (within the limits of deviation for the route alignment set out in the Channel Tunnel Rail Link Act 1996) as to the design which it employed. (As a matter of practicality, French HSR design and technology was largely employed).

Both projects were dependent on favourable – and, it turned out, wildly optimistic – traffic forecasts. Without those encouraging forecasts, it is doubtful whether either project would have got off the ground. In the case of the Channel Tunnel, the forecasts were key to delivering the initial £6 billion of debt and equity funding. In the case of High Speed 1, they formed the basis of LCR’s winning bid.

In both cases, the failure of real life to live up to the promise of the early forecasts led to a major restructuring of the projects. This occurred at different stages in each case.

Passenger and revenue growth on the Eurostar service between London and Paris/Brussels was much lower than expected. LCR forecast that in 1996/97, Eurostar’s second full year of operation, 9.5 million passengers would use the train service. The actual number was 5.1 million. It forecast passenger numbers would exceed 15 million by 2000 and 20 million by 2004. Actual passenger numbers in 2014 were only 10.4 million.

In the case of High Speed 1, the disappointing outturn numbers passengers using the new Eurostar service forced LCR to abandon its plans to float the business on the London stock exchange.

In the case of the Channel Tunnel, lower than expected passenger numbers plus 80% cost overruns led to a share price collapse and debt restructurings.
Both projects were awarded a concession for a fixed duration – but in both cases that duration was subject to change.

The term of the Eurotunnel concession was originally 55 years. In 1997, this was extended by 34 years by the British and French governments. It was their contribution to addressing the financial crisis in which Eurotunnel found itself following the completion of the Tunnel, and which resulted in the banks swapping billions of pounds of loans for shares.

The position was the other way around in the case of High Speed 1. The original concession term was for 99 years and ownership of the UK’s interest in Eurostar was transferred outright to LCR (subject to certain rights of clawback \(^1\) for the UK Government); the High Speed 1 project was, in its first form, effectively a privatisation. When the project ran into difficulties as a result of lower than expected passenger numbers on Eurostar, a reduction in the concession term to 90 years was part of the restructuring agreed with the UK government. At that stage, the High Speed 1 Concession would have terminated in 2086 – the same date on which the Eurotunnel concession expires.

But nothing stays the same. High Speed 1 was subject to a series of further restructurings during the construction of the rail link, the result of which was that, at completion, LCR was 100% owned by the UK government. Prior to High Speed 1 being put up for sale by LCR in 2010, the concession was further shortened to 2040. This was on the basis that limited net present value would be attributed to any period of the concession longer than 30 years from the point of sale. The interests of the UK government were therefore best protected by awarding a shorter concession and reaping the benefits of a further concession award in 2040.

\(^1\) Note of the editor: A clawback is a special contractual clause by which money already paid must be paid back under certain conditions.
In both cases, the new infrastructure had both a vertically integrated and an external customer.

Eurotunnel had its monopoly shuttle service which competed with ferry companies for the transport of road vehicles across the Channel. It also had a major external customer in the shape of SNCF and British Railways, which would run both passenger services (in the form of Eurostar) and freight services. The usage contract concluded with SNCF and British Railways in 1987 related to 50% of the Tunnel capacity and was key to providing confidence of a revenue stream once the Tunnel was built. Following the privatisation of British Rail in the 1990s, the rights and obligations of the Usage Contract were passed to Eurostar and freight operator EWS – but this was done in the form of a back-to-back contract because the rights themselves could not be transferred.

In the case of High Speed 1, the UK arm of Eurostar was transferred to LCR with the intention that revenues from that service would help cover the cost of building the rail link. High Speed 1 also had an external customer in the form of domestic services between London and Ashford, currently operated by LSER. The UK government paid to reserve domestic capacity on the new high speed line.

For both projects, the arrangements under which the State or State-controlled railways committed to pay for capacity on the new infrastructure amounted, in effect, to a public subsidy. But such arrangements were essential. Without its usage contract with SNCF and British Railways, Eurotunnel would have struggled to raise the debt and equity it required to construct the Tunnel. And when High Speed 1 ran into financial difficulties, capacity payments made in respect of Eurostar and domestic services – both of which were backed with UK government guarantees – formed an essential source of funding for the project. We will discuss later whether such arrangements would be possible to support rail infrastructure projects today, having regard to the limitations on access charges imposed by EU rail regulation.
In what ways were the projects different?

The Channel Tunnel was an Anglo-French project and therefore involved concessions awarded by two separate governments. This was a complicating factor and necessitated a treaty between Britain and France – the Treaty of Canterbury, which was signed in February 1986.

A key term of the UK Government’s support for the Channel Tunnel (provided largely through the Treaty and the Channel Tunnel Act 1986) was that there would be no public money provided to support the project. In contrast, High Speed 1, from day one, benefitted from two forms of UK Government grant and a commitment by HMG to pay for capacity on the link reserved for domestic trains.

The award of the High Speed 1 Concession involved only the UK Government. That said, the fact that High Speed 1 benefited from State funding meant that it was necessary for HMG to engage with the European Commission under the State aid rules. There were no fewer than five State aid applications and clearances during the course of HS1’s development and completion.

The Anglo-French nature of the Channel Tunnel project was a complicating factor when it came to regulating the operation of the link. The Treaty of Canterbury provided for an Intergovernmental Commission (the IGC) to regulate safety, security and – until recently – access and charging.

Since the IGC was established, we have had three EU rail packages and proposals for a 4th package. EU rail regulation imposes obligations in relation to ensuring non-discriminatory access to rail infrastructure, and detailed rules relating to charging. It also establishes a role for an independent regulator to ensure the EU regime.
The European Commission expressed concern that the IGC was not sufficiently independent of the French and British governments. Those governments came under increasing pressure to find an alternative regulator to the IGC that satisfied the requirement for independence.

On 16 June 2015, responsibility for the economic regulation of the Channel Tunnel transferred to the UK Office of Rail and Road (ORR) in respect of the UK part of the Tunnel and the French rail regulator ARAF in respect of the French part of the Tunnel.

The restructurings of Eurotunnel were largely of a financial nature. The restructurings of the High Speed 1 project, whilst, of course, driven by financial circumstances and the need to provide solutions to those circumstances, involved significant changes in the operational structure and reflected the UK government’s desire to introduce new parties into the project.

It was considered vital that LCR remain in place; had it been replaced with a new entity under the Concession, the project would have had to be re-procured, with a resulting delay of up to 2 years. The project was the flagship of HMG’s transport infrastructure policy and also of its PFI/PPP programme as well as being a key component of the EU’s TENS programme, so a delay of that scale was not considered acceptable. Therefore, LCR remained the counterparty of the UK government under the Concession, and aspects of the project were effectively “contracted out” to third parties. In particular, the management of Eurostar UK was contracted out to the Inter Capital and Regional Railways consortium, whilst the construction of the railway was split into 2 sections: (South (1) and North (2)).

Railtrack (Network Rail’s predecessor) assumed control of the construction of Section 1 in the first place, with an obligation to buy that piece of the railway on its completion, for the actual outturn cost of the construction, and was granted an option to assume the equivalent role in relation to Section 2. Given the UK
Government’s ongoing significant financial exposure to the project through its grant commitments, it took a golden share in LCR with significant control and economic rights. (Time today does not permit discussion of that restructuring and the subsequent restructurings in any detail; suffice to say that the subsequent failure of Railtrack led to its exit from the project (other than the O&M of the infrastructure when built) and resulted in LCR becoming a 100% Government-owned company, which went on to undertake the further financing, construction and successful completion of the link).

The final restructuring of High Speed 1 was shaped by the requirements of EU rail regulation. As we will explain, those requirements are likely to have a significant impact on the structure of future rail infrastructure projects.

EU rules intended to promote competition between train operators require that track access charges are set on a non-discriminatory basis, and are payable by all users. The rules also restrict the nature of the charges:
- the starting point is that track access charges should be set by reference to “the cost that is directly incurred as a result of operating the train service”. There is a debate over precisely what this means but, in the case of High Speed 1, the view was taken that this “charging principle” does not permit the infrastructure manager to recover even the fixed or common costs associated with the operation, maintenance and renewal of the railway. It certainly does not permit the infrastructure manager to recover the costs which it incurred in constructing the railway;
- there are two exceptions to this charging principle. First, an infrastructure manager may level mark-ups that the market can bear. Second, the infrastructure manager may – if it satisfies certain conditions – levy higher charges on the basis of “the long-term costs of the project”. Only by relying on these exceptions is an infrastructure manager such as High Speed 1 able to recover the cost of constructing the infrastructure.
These EU rules on track access charging were inconsistent with the earlier arrangements established to support the financing of High Speed 1. Those arrangements required that Eurostar and domestic services pay very high access charges for the use of the infrastructure – access charges that were backed up by Government guarantees. Those very high charges were therefore replaced as part of the final restructuring of High Speed 1 with arrangements which were both compliant with EU rail regulations and – it was hoped – sustainable in the longer term.

There were two key components to the revised track access charges: the OMRC (an operation, maintenance and renewal charge) and an IRC (an investment recovery charge).

The OMRC was, and is to be, determined by reference to High Speed 1’s requirement for funding for operation, maintenance and renewal, as assessed by the UK rail regulator, the ORR. The regulatory model for the assessment of OMRC was based on that established for the UK’s principal rail infrastructure manager, Network Rail. The ORR is required to conduct a periodic review of High Speed 1’s requirements every five years, and the overall allowance determined by the ORR at that review is apportioned between train operators based on the volume of services forecast to use the railway. This revenue control function was assigned to the ORR by the Concession Agreement concluded between High Speed 1 and the UK Government, despite the fact that the ORR was not a party to that agreement. The arrangement was unique in that it relied on contractual arrangements to replicate a regulatory framework which, in the case of Network Rail, is established by primary legislation. That was necessary because High Speed 1 was exempt from the requirement to hold a licence – a legislative hangover from the days when High Speed 1 was expected to be free from domestic rail regulation.
While the OMRC is intended to cover High Speed 1’s operational costs, the costs associated with servicing debt obligations and turning a profit for equity investors fall within the scope of the Investment Recovery Charge. Whereas the OMRC is set by the ORR, the maximum level of the IRC is specified by HM Government as a term of the Concession Agreement. Indeed, the government went out of its way to make it difficult for the ORR to interfere with the level of the IRC, recognising that the level of IRC would be a key factor in the value of High Speed 1 when the concession was put up for sale in 2010. The IRC was set at £69.57 per minute in February 2009 prices, adjusted semi-annually for inflation.

Clearly, the IRC is not a charge set by reference to the “cost directly incurred in operating the train service”. In setting the IRC, it was necessary to engage one of the two exceptions to that charging principle.

The downside with the first of these exceptions – that is, mark-ups that the market can bear – is that it exposes the infrastructure manager to the risk that a particular train operator will claim that the market in which it operates cannot support the additional charges, and that it is not therefore required to pay them. That would clearly be destabilising for any infrastructure manager that was reliant on the recovery of such charges to pay its debt obligations. That drives an infrastructure manager to the second of the two exceptions: higher charges on the basis of “the long-term costs of the project”. That was the basis on which High Speed 1 set its IRC. Such charges can be set provided that – among other things – it can be demonstrated that the project would not have been undertaken without the prospect of such higher charges. But the ability to levy such charges falls away once the cost incurred in constructing the railway has been fully recovered. In principle, therefore, an IRC may be levied only for a limited period. It is anticipated that a significant proportion of the construction costs of High Speed 1 will have been recovered by the end of the present concession in 2040.
High Speed 1 also relies on the “long term project cost” exception to recover that part of its OMRC which are not costs “directly incurred as a result of operating the train service”. In the case of OMRC, however, the focus is on the longer term costs of the operational phase of the High Speed 1 project.

Lessons Learned

The Eurotunnel consortium is generally regarded as being rather “contractor heavy”. Many commentators consider that that led to insufficient focus on the fundamental objective of the successful and timely delivery of the project, distraction having been caused by pre-occupation with the contracts awarded to each consortium member who was a contractor. Whilst the original LCR private sector investors did have roles reserved to them in relation to the provision of services for the project, none of those roles was directly related to the provision of main works.

When London & Continental Railways signed the Development Agreement with the UK Government in 1996, it acquired at that time the ownership of the company which was then known as Eurostar UK Limited, the UK partner railway in the Eurostar business. Whilst, at that stage, LCR had already raised preliminary funding to undertake the design of the High Speed 1 link and matters such as early land acquisition and early works, the financing of the further construction and operation of the infrastructure had not yet been undertaken. Whilst the Government had the right to claw back ownership of Eurostar if LCR were to fail in its further financing, Government would have had to assume the further accrued liabilities of Eurostar as well as the assets.

The initial financing referred to above was supported by a Direct Agreement from HM Government in favour of the bank group. Some of the commentators have suggested that the comfort of that Direct Agreement at such an early stage did not encourage the
Lenders to examine as forensically as they might have done the business case for the project, including in particular the revenue assumptions made by LCR and various other parties.

The contracting strategy for Eurotunnel consisted of a combination of Fixed Price and Target Price. The works were not disaggregated.

The use of the NEC engineering and construction contract – the first time on a major Infra project. Lenders got comfortable; used frequently since on, e.g. T5, 2012 Olympics, Crossrail and HS2.

The works were disaggregated into distinct packages (e.g. London Tunnels), thereby mitigating the consequences of exposure to failure of any given contractor. In addition, LCR had the ability to transfer elements of works from an under-performing contractor to another, performing contractor.

The sale of High Speed 1 following completion of the railway was a success. The 30 year concession sold for £2.1 billion in 2010. There was fierce competition for an asset that no longer carried construction risk, was economically stable with an established customer base, and which was subject to a clear and robust regulatory regime.

The future provision of new railway infrastructure in the EU

We have spent some time considering the EU rules which apply to track access charges – and how they were applied in the case of High Speed 1 – because it has significant implications for future rail infrastructure projects. Put simply, the EU rules do not make it easy to involve the private sector in the construction of new railway infrastructure. They are drafted on the basis of an unwritten assumption that the provider of new railway infrastructure will be the State, and the State it is prepared to subsidise the cost of doing so.
Had the present EU rules been in place at the outset of both the Channel Tunnel and High Speed 1 projects, it would have made it difficult for the concessionaire in each case to have secured the level of usage charge that was necessary to secure debt and equity funding for those projects. And apart from restrictions on the level of the charges, EU rail regulations also limit the duration of any “framework agreement” between infrastructure managers and train operators. Agreements longer than 15 years are permissible only in exceptional cases.

It begs the question whether there is a role going forward for the private sector funding of major rail infrastructure projects – at least during the construction phase of the project. Governments may in future find it easier to fund the cost of such projects themselves and then seek to recover at least some of the costs by means of the sale of a concession to operate the railway and recover charges from users, in much the same way as occurred in the case of High Speed 1.

In our view, it would be a shame to ignore the benefits that private sector involvement can bring to major procurement projects. It may be that the model adopted in relation to the recent Thames Tideway Tunnel could be brought to bear for railway infrastructure projects – although query whether that sits comfortably with EU policy on the provision of and charging for railway infrastructure. But that is for another day.