Selling HS2

Delivering a return on Government's investment

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GREENGAUGE21

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Contents

Introduction & Summary

The Secretary of State for Transport, Philip Hammond recently confirmed that it is the UK Government's intention to sell High Speed 2 (HS2) once built[1].

We have prepared this paper for Greengauge 21 to provide a high level illustration of the potential proceeds from a sale of HS2 and other financial benefits and to outline some key actions to achieve best value from a sale. Our analysis is based on projections of revenue and cost provided to us by HS2 Limited[2] and Greengauge 21.

HS2 is the proposed 175km line from London to the West Midlands. The anticipated construction cost is £13.9bn[3]. When operations commence in 2026 it will allow speeds in excess of 200 mph and a journey time from London to Birmingham of 49 minutes[4].

The route would generate many benefits to communities in terms of job creation and connectivity gains. The analysis here suggests that proceeds from the sale of the line could also be significant – up to 50% of the anticipated construction cost.
The sale proceeds will not fund the full costs of designing and building HS2, which reinforces our earlier work in Fast Forward – Funding Report[5] which asserted that the "delivery of high speed rail could not be funded solely from its own revenue and therefore substantial government involvement will be required."

1 Financial Times 24 June 2011
2 The company set up by the Government to consider the case for high speed rail
3 A Summary of Changes to the HS2 Economic Case, April 2011, HS2 Ltd. Price is shown in 2009 net present value terms. This excludes rolling stock and renewal costs of £2.8bn and £1.1bn respectively in 2009 net present value terms. The total cost including these items is £17.8bn
4 High Speed Rail: Investing in Britain's Future Consultation, February 2011. HS2 Ltd
5 Fast Forward - Funding Report: Delivery of High Speed Rail in Britain, February 2010. www.greengauge21.net/wp-content/uploads/Funding-Report.pdf

Sale of HS1 – the background

In November 2010, the Government completed the transfer of a 30 year concession of HS1 to a consortium of Borealis Infrastructure and Ontario Teachers Pension Plan for £2.1bn. The sale took place three years after the completion of the 108km line that cost approximately £5.8bn to design and build.

The consortium is responsible for operating, maintaining and renewing the infrastructure that links London to the Channel Tunnel via St Pancras International, Stratford, Ashford and Ebbsfleet. Over the 30 year concession, the consortium will receive revenue in the form of station and track access charges from the train companies using the line, including Eurostar and Southeastern, plus revenues associated with the stations (e.g. car parking and retail outlets).

Track access charges are amounts paid to the Infrastructure Manager (i.e. HS1) by entities, or 'Operators', that operate train services in return for allowing their trains to run on the infrastructure. They are intended to cover the operation, maintenance and renewal of the infrastructure, and repay part of the cost of construction. Access charges on HS1 were set on the basis of £x per train minute travelled in order to incentivise efficient use of capacity. This means for example that access charge revenue increases if more trains run on the infrastructure but decreases if services are faster.

What is the potential sale value of HS2?

Approach

We have made the following assumptions for this paper:

- HS2 will be sold under a 30 year concession and that the sale will occur in 2029 (three years after the anticipated opening of HS2).
- Train operating services on HS2 will be run by an Operator under a franchise agreement similar to other passenger services on the GB network[6]. We assume a succession of two to three franchises totalling 30 years to match the HS2 concession length.
- Rolling stock will be leased by the Operator from a separate private sector owner under a lease or availability type contract.
- The maximum amount of funds that the Operator could have at its disposal to pay for access charges can be referred to as Operator Net Revenue and be calculated as farebox revenue less the sum total of operating costs, rolling stock costs and a reasonable level of profit.
- Similar to HS1 we have used two different access charges. The first is to cover the Operation, Maintenance and Renewal Charge of the line – the OMRC. The second is to contribute to the recovery of the costs of having built the line in the first place – the Investment Recovery Charge (IRC).

6 The HS1 operator, Eurostar, is an open access operator

- HS2 will be regulated in a similar manner to HS1 which results in the net present value of the IRC being broadly equal to sale proceeds.
- The Operator and Infrastructure Manager will be subject to UK corporation tax.
- The Infrastructure Manager will raise funds using a cost of capital of approximately 6.5% (real).

The forecasts that were provided to us suggest that HS2 services are expected to generate significant Operator Net Revenue (the level of which is expected to rise over time as passenger volumes grow) which government could realise either through a sale of the infrastructure and/or through premiums payable by the Operator to government. The forecasts assume that fare levels are set at the same level on average as the remainder of the national rail network – no premium fares apply to the high speed services.

There are many issues that arise in the setting of access charges. Notwithstanding these complexities, government could be viewed as having a choice between setting access charges at a relatively high level in order to maximise sale proceeds and setting access charges at a lower level (say at the level commensurate with Operator Net Revenue toward the start of the Operator's franchise) and subsequently recovering some of its investment through the receipt of franchise premiums.

Figure 1: Potential overview of different entities and flow of funds

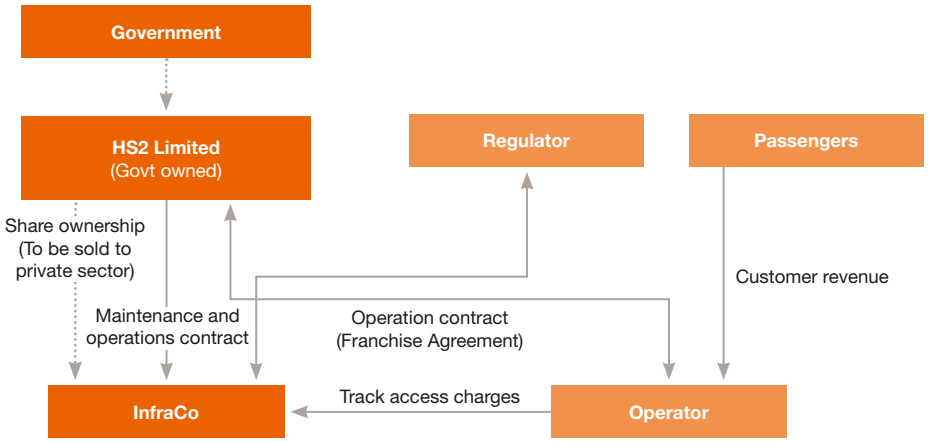
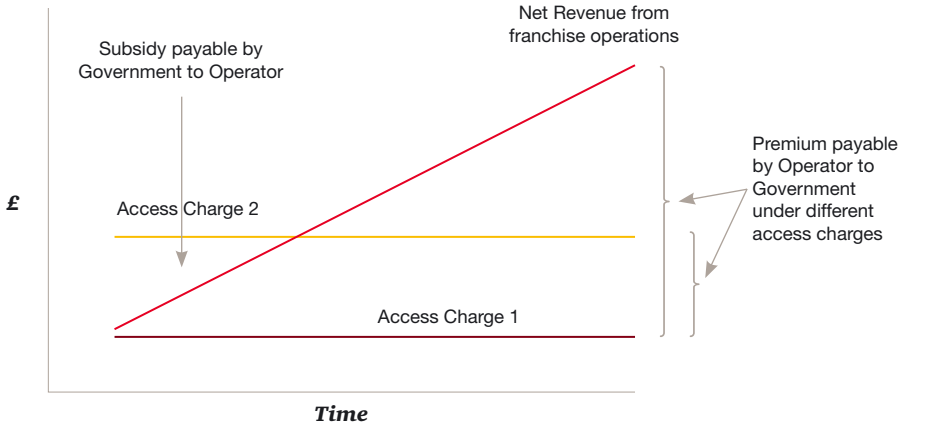


Figure 2 illustrates this point, noting:

- The red line denotes Operator Net Revenue from franchise operations which are projected to rise over time.
- The yellow line illustrates a relatively high level of access charge, the net present value of which is the same as the net present value of Operator Net Revenue (and which should result in the franchise/s being operated on an overall nil premium/subsidy basis).
- The maroon line denotes a lower level of access charges, set at the level of Operator Net Revenue at the beginning of the 30 year concession period.

Figure 2: Potential choice between level of access charges



Results

We have calculated the results for the scenario that is considered equivalent to setting the access charges such that the net present value of combined subsidies and premiums payable by the Operator is zero ('Access Charge 2' in Figure 2).

This analysis focuses on the costs and revenues associated with the 175km high speed section from London to the West Midlands. This includes pro-rating the franchise costs and revenues from the routes to Manchester, Liverpool and Glasgow to include the share that is considered to apply to London to West Midlands only.

Table 1 shows two sources of income over the concession:

1 Sales proceeds from the sale of the asset in 2029.

2 Corporation tax from the Operator and concessionaire based on their taxable profit.

Table 1: income sources for government over the concession

Net Present Value 2009[7]	£bn
Total proceeds, tax receipts and premium received by government	7.5 – 9.0
Which is made up of:	
Sale Proceeds	6.0 – 7.0
Tax receipts from concession and Operator over 30 years	1.5 – 2.0

In 2010 the largest infrastructure financing in the UK was Cheung Kong Infrastructure's and Hong Kong Electric's £5.7bn acquisition of EDF's UK power networks. Therefore while our analysis suggests an illustrative sale price of £6bn-£7bn, this may not be achievable in a single financing. Consideration will be required of how to parcel the sale of different assets in order to manage capacity in the finance markets.

The results do not represent an exhaustive account of the financial impact of HS2 on government finances. Other issues that should be considered include:

- The impact of changes in revenues and costs on the classic network brought about by passengers switching their journeys to HS2.
- The additional franchise income and premiums that will flow from the operation of HS2 services north of the point where trains join/leave the existing West Coast Main Line. These are likely to be substantial.
- The HS2 infrastructure may generate net revenues to Government in the 3 years from 2026-2029 before the sale in the region of £100m-£200m.
- At the end of the 30 year concession HS2 could be sold again, generating further significant sale proceeds which we estimate could be in the region of £1bn-£2bn in 2009 net present value terms.

Sensitivities

Revenue is the key driver of access charges and forecasts are necessarily uncertain and have a mixed history of accuracy in the rail industry. Table 2 shows the impact on total proceeds should farebox revenue vary by up to 20% between now and the sale of HS2 (or should bidders form a different view of the forecast to the same extent).

The range of outcomes for different revenue scenario reinforces the issue that the price for which HS2 can be sold may vary from our illustration and is subject to a number of risk factors of which we have highlighted only two (access charge policy and revenue forecasts).

Table 2: Range of outcomes for different revenue scenarios

Net Present Value 2009	£bn
Total proceeds, premium and tax revenues received by Government	7.5 – 9.0
Revenue +20%	10.0 – 11.5 +30%
Revenue -20%	5.0 – 6.5 -30%

7 In order to compare costs and benefits occurring at different points in time, our appraisal brings all future year values to a net present value in 2009 using a 3.5% real rate up to 2039 and 3% beyond that date (which is consistent with the approach adopted by HS2 Ltd and government Green Book rates).

Five key actions to achieve value for money from the sale

1 Revenue forecasts must be robust. Bidders for the infrastructure will need a high level of confidence around revenues they are projected to receive from access charges. This makes it particularly important to address issues such as:

- What level of services will ultimately be operated on the line? Government provided explicit commitments in relation to this in the case of HS1. Will such commitments be required in the case of HS2 and if so will they be provided? Or will commercial demand for services be sufficiently strong and bankable? What will be the impact of competition with the existing classic line between London and the West Midlands?
- How the regulatory framework of the line is designed and operated over time. For example, what will be the level and structure of access charges for HS2 and how might they vary over time? Experience suggests that approaches which draw on insights from across sectors and from different disciplines are a key to success.
- The need for a history of service operation prior to sale, which in practice may be shorter or longer than 3 years.

2 Uncertainty in the potential operations, maintenance and renewal costs that gives rise to cost contingencies. Early efforts should therefore be made to ensure that the asset and cost base is understood and manageable (which raises questions of whether, if so and how to subcontract). The regulatory framework should strike an appropriate balance between certainty, providing the infrastructure manager with incentives to improve performance, and bring down costs.

3 ***Inter-relationships and trade-offs with wider project and network objectives need to be optimised. The sale price and ultimate success of HS2 will depend, in large, on how it fits with the classic network in areas as diverse as farebox pricing, franchising and open access policy, approaches to network regulation and engineering. Joined up and collaborative approaches will be crucial. For example:***

- Fare policy may seek either to maximise revenue or maximise utilisation of capacity on trains (thereby hoping to maximise benefit to the economy overall) and these policies will have different financial outcomes.

4 ***The contractual structure and ultimate sale of HS2 must support the later extension of the high speed network. Proceeds raised upon a sale could be reinvested in the extension of this network. However the commercial and financial structures put in place upon the sale of HS2 should not erode competition for the extension and later sale of HS3.***

For example:

- A 15 year franchise to run HS2 would either need to be varied or retendered to allow for the upgrade of high speed services beyond the West Midlands.

5 ***The use of private finance needs to be optimised. For example:***

- Lowering cost of capital will be a key driver in maximising sale value. If points one to four, above, are addressed up-front and as part of a coherent, comprehensive forward thinking programme then this should drive down the cost of capital.
- It may be beneficial to finance the construction of stations and depots separately from the infrastructure. This would appeal to a wider set of investors than just infrastructure investors and reduce the financing required upon a sale of the infrastructure. For example the £6bn-£7bn noted above could be raised from several types of investors and sale processes rather than just one of each. This would improve the capacity to fund the project from the financing markets and the likelihood of achieving the desired sale proceeds.
- New methods of fund raising used to secure finance, such as Tax Incremental Financing (TIF), will need to be considered and incorporated into the wider funding plan.

Conclusion

The paper provides a high level illustration of what the sale price of HS2 might be. The key points are:

- The forecasts that have been provided to us suggest that services could generate significant Operator Net Revenue resulting in proceeds upon a sale of an infrastructure concession of between £6bn - £7bn which could be used to offset up to 50% of the initial cost of construction.
- This offset could be achieved directly through the sale price or indirectly over a longer timescale through subsequent franchise premiums.
- There are other financial benefits that would accrue to the government over time. These will be important for government to consider in its investment decision.

The sale price and other financial benefits are necessarily illustrative and not exhaustive and will vary based on different assumptions that are in place at the time of the sale. Therefore it is more appropriate to consider a range of potential outcomes. We have also highlighted five key points that should be addressed before and during the project in order to aid value maximisation.

About Greengauge 21

Greengauge 21 is a not-for-profit organisation which aims to research and develop the concept of a high speed rail network, and to promote its implementation as a national economic priority.

Founded by Jim Steer, one of the country's leading transport sector specialists, Greengauge 21 has been established to progress the debate on high speed rail and to promote it in the public interest.

The organisation has been conceived as an umbrella under which all those with an interest in supporting and promoting a High Speed Rail network can come together and openly and publicly debate the merits of alternative routes, priorities and technologies, alternative implementation strategies and the economic and environmental benefit.

For more information go to www.greenguage21.net

About PwC

We have a specialist transport industry business that provides a wide range of advice and support, including audit, tax and corporate finance advice on deals and support for capital projects.

We are currently advising on the three largest orders of rolling stock in the UK since the privatisation of its national rail network. We also advised on the Birmingham roads PFI which was voted 2010 European PPP Deal of the Year by Project Finance International.

We advised on the access charge regime designed for HS1 and also provided Due Diligence services to one of the bidders for the HS1 concession and we have recently advised a number of European governments on the design and implementation of high speed rail including Norway, Poland, Sweden and Russia.

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